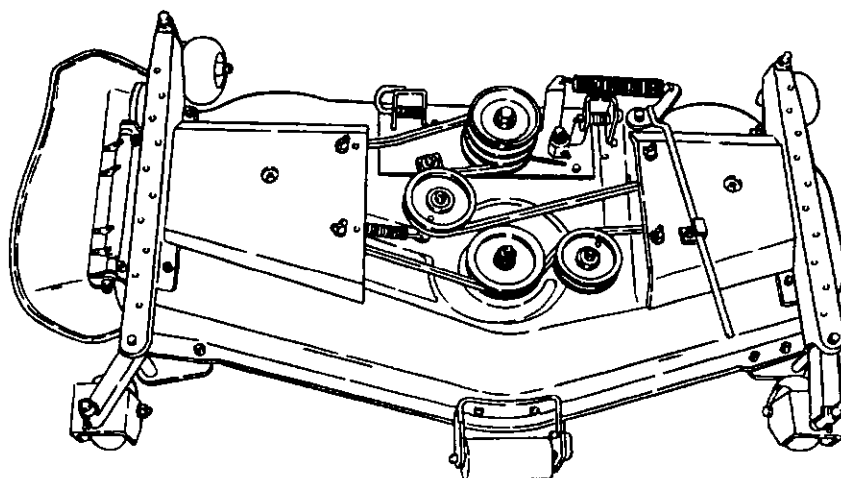


Cub Cadet

Power Equipment

Owner's Manual

48" TRACTOR DECK



INSTALLATION AND MAINTENANCE INSTRUCTIONS

Model Number 301

Important:
Read Safety Rules and Instructions Carefully

Thank you for purchasing an American-built product

CUB CADET CORPORATION • P.O. BOX 368023 • CLEVELAND, OHIO 44136-9723

PRINTED IN U.S.A.

FORM NO. 772-9032A

LIMITED WARRANTY

**TWO-YEAR RESIDENTIAL
ONE-YEAR COMMERCIAL**

Proper maintenance of your Cub Cadet equipment is the owner's responsibility. Follow the instructions in your owner's manual for correct lubricants and maintenance schedule. Your Cub Cadet dealer carries a complete line of quality lubricants and filters for your equipment's engine, transmission, chassis and attachments.

RIDING MOWERS, LAWN TRACTORS, GARDEN TRACTORS, CUB CADET ATTACHMENTS AND HOME MAINTENANCE PRODUCTS

This limited warranty for residential users, covers any defect in materials or workmanship in your Cub Cadet equipment for two years from the date of purchase for the first user purchaser.

We will replace or repair any part or parts without charge through your authorized Cub Cadet dealer.

Batteries have a one-year prorated limited warranty with 100% replacement during the first three months.

V-belts for either the traction drive or any attachments are covered for one year only.

Cub Cadet equipment used commercially is warranted for one year only.

(Commercial use is defined as either having hired operators or used for income producing purpose.)

ITEMS NOT COVERED

The warranty does not cover routine maintenance items such as lubricants, filters (oil, fuel, air and hydraulic), cleaning, tune-ups, brake and/or clutch inspection, adjustments made as part of normal maintenance, blade sharpening, set-up, abuse, accidents and normal wear. It does not cover incidental costs such as transporting your equipment to and from the dealer, telephone charges or renting a product temporarily to replace a warranted product.

There is no other express warranty.

HOW TO OBTAIN SERVICE

Contact your authorized Cub Cadet servicing dealer who sold you your Cub Cadet equipment. If this dealer is not available, see the Consumer Yellow Pages under "lawn mowers" for the name of a dealer near you.

If you need further assistance in finding an authorized Cub Cadet servicing dealer, contact:

**Cub Cadet Corporation
Post Office Box 368023
Cleveland, Ohio 44136**

HOW DOES STATE LAW APPLY?

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

CONTENTS

Section	Page
Warranty	2
Safe Operation Practices	3
Product Graphics	7
To The Owner	8
I Deck and Installation Components	8
II Tractor and Deck Preparation	9
III Installation and Removal of Deck Assembly	11
IV Adjustments	21
V Maintenance	25
Lubrication Guide	27



WARNING


This unit is equipped with an internal combustion engine and should not be used on or near any unimproved forest-covered, brush-covered or grass-covered land unless the engine's exhaust system is equipped with a spark arrester meeting applicable local or state laws (if any). If a spark arrester is used, it should be maintained in effective working order by the operator.

In the State of California the above is required by law (Section 4442 of the California Public Resources Code). Other states may have similar laws. Federal laws apply on federal lands. A spark arrester muffler is available at your nearest engine authorized service center.

IMPORTANT

SAFE OPERATION PRACTICES



THIS SYMBOL POINTS OUT IMPORTANT SAFETY INSTRUCTIONS WHICH, IF NOT FOLLOWED, COULD ENDANGER THE PERSONAL SAFETY AND/OR PROPERTY OF YOURSELF AND OTHERS. READ AND FOLLOW ALL INSTRUCTIONS IN THIS MANUAL BEFORE ATTEMPTING TO OPERATE YOUR UNIT. WHEN YOU SEE THIS SYMBOL –  **HEED ITS WARNING.**



DANGER:

Your lawn mower was built to be operated according to the rules for safe operation in this manual. As with any type of power equipment, carelessness or error on the part of the operator can result in injury. This lawn mower is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.



I. GENERAL OPERATION

1. Read, understand and follow all instructions in the manual and on the machine before starting. Keep this manual in a safe place for future and regular reference and for ordering replacement parts.
2. Only allow responsible individuals familiar with the instructions to operate the machine. Know controls and how to stop the machine quickly.
3. Do not put hands or feet under cutting deck or near rotating parts.
4. Clear the area of objects such as rocks, toys, wire, etc. which could be picked up and thrown by the blade. A small object may have been overlooked and could be accidentally thrown by the mower in any direction and cause injury to you or a bystander. To help avoid a thrown objects injury, keep children, animals, bystanders and helpers at least 75 feet from the mower while it is in operation. Always wear safety glasses with

side shields or safety goggles during operation or while performing an adjustment or repair, to protect eyes from foreign objects. Stop the blade(s) when crossing gravel drives, walks or roads.

5. Be sure the area is clear of other people before mowing. Stop machine if anyone enters the area.
6. Never carry passengers.
7. Disengage blade(s) before shifting into reverse and backing up. Always look down and behind before and while backing.
8. Be aware of the mower and attachment discharge direction and do not point it at anyone. Do not operate the mower without either the entire grass catcher or the chute guard in place.
9. Slow down before turning. Operate the machine smoothly. Avoid erratic operation and excessive speed.
10. Never leave a running machine unattended. Always turn off blade(s), place transmission in neutral, set park brake, stop engine and remove key before dismounting.
11. Turn off blade(s) when not mowing.
12. Stop engine and wait until blade(s) comes to a complete stop before (a) removing grass catcher or unclogging chute, or (b) making any repairs, adjusting or removing any grass or debris.
13. Mow only in daylight or good artificial light.
14. Do not operate the machine while under the influence of alcohol or drugs.
15. Watch for traffic when operating near or crossing roadways.
16. Use extra care when loading or unloading the machine into a trailer or truck. This unit should not be driven up or down a ramp onto a trailer or truck under power, because the unit could tip over causing serious personal injury. The unit must be pushed manually on a ramp to load or unload properly.
17. Never make a cutting height adjustment while the engine is running if operator must dismount to do so.
18. Wear sturdy, rough-soled work shoes and close-fitting slacks and shirts. Do not wear loose fitting clothes or jewelry. They can be caught in moving parts. Never operate a unit in bare feet, sandals or sneakers.
19. Check overhead clearance carefully before driving under power lines, wires, bridges or low hanging tree branches, before entering or leaving

buildings, or in any other situation where the operator may be struck or pulled from the unit, which could result in serious injury.

20. Disengage all attachment clutches, thoroughly depress the brake pedal and shift into neutral before attempting to start engine.
21. Your mower is designed to cut normal residential grass of a height no more than 10". Do not attempt to mow through unusually tall, dry grass (e.g. pasture) or piles of dry leaves. Debris may build up on the mower deck or contact the engine exhaust presenting a potential fire hazard.



II. SLOPE OPERATION

Slopes are a major factor related to loss of control and tip-over accidents which can result in severe injury or death. **All slopes require extra caution.** If you cannot back up the slope or if you feel uneasy on it, do not mow it.

For your safety, use the slope gauge included as part of the tractor owner's manual to measure slopes before operating this unit on a sloped or hilly area. If the slope is greater than 15° as shown on the slope gauge, do not operate this unit on that area or serious injury could result.

DO:

Mow up and down slopes, not across.

Remove obstacles such as rocks, limbs, etc.

Watch for holes, ruts or bumps. Uneven terrain could overturn the machine. **Tall grass can hide obstacles.**

Use slow speed. Choose a low enough gear so that you will not have to stop or shift while on the slope. Always keep machine in gear when going down slopes to take advantage of engine braking action.

Follow the manufacturer's recommendations for wheel weights or counterweights to improve stability.

Use extra care with grass catchers or other attachments. These can change the stability of the machine.

Keep all movement on the slopes **slow and gradual**. Do not make sudden changes in speed or direction. Rapid engagement or braking could cause the front of the machine to lift and rapidly flip over backwards which could cause serious injury.

Avoid starting or stopping on a slope. If tires lose traction, disengage the blade(s) and proceed slowly **straight down** the slope.

DO NOT:

Do not turn on slopes unless necessary; then, turn slowly and gradually downhill, if possible.

Do not mow near drop-offs, ditches or embankments. The mower could suddenly turn over if a wheel is over the edge of a cliff or ditch, or if an edge caves in.

Do not mow on wet grass. Reduced traction could cause sliding. **Do not** try to stabilize the machine by putting your foot on the ground.

Do not use grass catcher on steep slopes.



III. CHILDREN

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. **Never** assume that children will remain where you last saw them.

1. Keep children out of the mowing area and in watchful care of an adult other than the operator.
2. Be alert and turn machine off if children enter the area.
3. Before and when backing, look behind and **down** for small children.
4. Never carry children. They may fall off and be seriously injured or interfere with safe machine operation.
5. Never allow children under 14 years old to operate the machine. Children 14 years and over should only operate machine under close parental supervision and proper instruction.
6. Use extra care when approaching blind corners, shrubs, trees or other objects that may obscure your vision of a child or other hazard.
7. Remove key when machine is unattended to prevent unauthorized operation.



IV. SERVICE

1. Use extreme care in handling gasoline and other fuels. They are extremely flammable and the vapors are explosive.
 - A. Use only an approved container.
 - B. Never remove fuel cap or add fuel with the engine running. Allow engine to cool at least two minutes before refueling.

- C. Replace fuel cap securely and wipe off any spilled fuel before starting the engine as it may cause a fire or explosion.
- D. Extinguish all cigarettes, cigars, pipes and other sources of ignition.
- E. Never refuel the machine indoors because fuel vapors will accumulate in the area.
- F. Never store the fuel container or machine inside where there is an open flame or spark, such as a gas hot water heater, space heater or furnace.

2. Never run a machine inside a closed area.
3. To reduce fire hazard, keep the machine free of grass, leaves or other debris build-up. Clean up oil or fuel spillage. Allow machine to cool at least 5 minutes before storing.
4. Before cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the spark plug to prevent accidental starting.
5. Check the blade and engine mounting bolts at frequent intervals for proper tightness. Also visually inspect blade for damage (e.g., excessive wear, bent, cracked). Replace with blade which meets original equipment specifications.
6. Keep all nuts, bolts and screws tight to be sure the equipment is in safe working condition.
7. Never tamper with safety devices. Check their proper operation regularly. Use all guards as instructed in this manual.
8. After striking a foreign object, stop the engine, remove the wire from the spark plug and thoroughly inspect the mower for any damage. Repair the damage before restarting and operating the mower.
9. Grass catcher components are subject to wear, damage and deteriorate, which could expose moving parts or allow objects to be thrown. For your safety protection, frequently check components and replace with manufacturer's recommended parts when necessary.
10. Mower blades are sharp and can cut. Wrap the blade(s) or wear gloves and use extra caution when servicing blade(s).
11. Check brake operation frequently. Adjust and service as required.

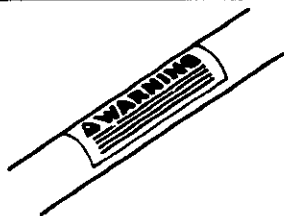
12. Muffler, engine and belt guards become hot during operation and can cause a burn. Allow to cool down before touching.
13. Do not change the engine governor settings or overspeed the engine. Excessive engine speeds are dangerous.
14. Observe proper disposal laws and regulations. Improper disposal of fluids and materials can harm the environment and the ecology.
 - A. Prior to disposal, determine the proper method to dispose of waste from your local Environmental Protection Agency. Recycling centers are established to properly dispose

of materials in an environmentally safe fashion.

- B. Use proper containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them. Properly dispose of the containers immediately following the draining of fluids.
- C. DO NOT pour oil or other fluids into the ground, down a drain or into a stream, pond, lake or other body of water. Observe Environmental Protection Agency regulations when disposing of oil, fuel, coolant, brake fluid, filters, batteries, tires and other harmful waste.



**OWNER'S
MANUAL**



SAFETY LABEL



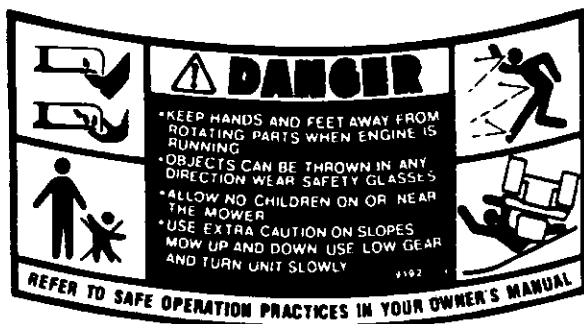
WARNING - YOUR RESPONSIBILITY

Restrict the use of this power machine to persons who read, understand and follow the warnings and instructions in this manual and on the machine.

PRODUCT GRAPHICS

Keep safety product graphics (decals) clean. Replace any safety graphic that is damaged, destroyed,

missing, painted over or can no longer be read. Replacement safety graphics are available through your dealer.



**SAFETY GRAPHIC – LOCATED
ON MOWER DECK**



**HANDS AND FEET SAFETY
GRAPHIC – LOCATED ON
CHUTE DEFLECTOR**



**DEFLECTOR SAFETY GRAPHIC –
LOCATED ON DECK**

TO THE OWNER

Contained in this manual are instructions covering installation and maintenance of the 48 inch mower deck Model 190301.

The following material will guide you through the installation process, and will help ensure optimal performance from the mower deck.

Maintenance instructions outlined in this manual will provide for a continued high level of performance and longevity from the mower deck.

Throughout this manual, the reader will be directed to refer to various figures. These figures depict and

identify parts which are relevant to the associated text. Careful attention to these figures will greatly assist the reader during both installation and maintenance processes.



NOTE

LEFT and RIGHT indicate the left and right sides of the tractor when facing forward in the driver's seat. Reference to FRONT indicates grille end of the tractor; to REAR the drawbar end.

SECTION I. DECK AND INSTALLATION COMPONENTS



WARNING

When handling the mower deck, be careful not to cut yourself on the sharp blades.

Remove deck and installation components from the container. Refer to Figure 1 to ensure that all parts are present and to acquaint yourself with parts nomenclature.

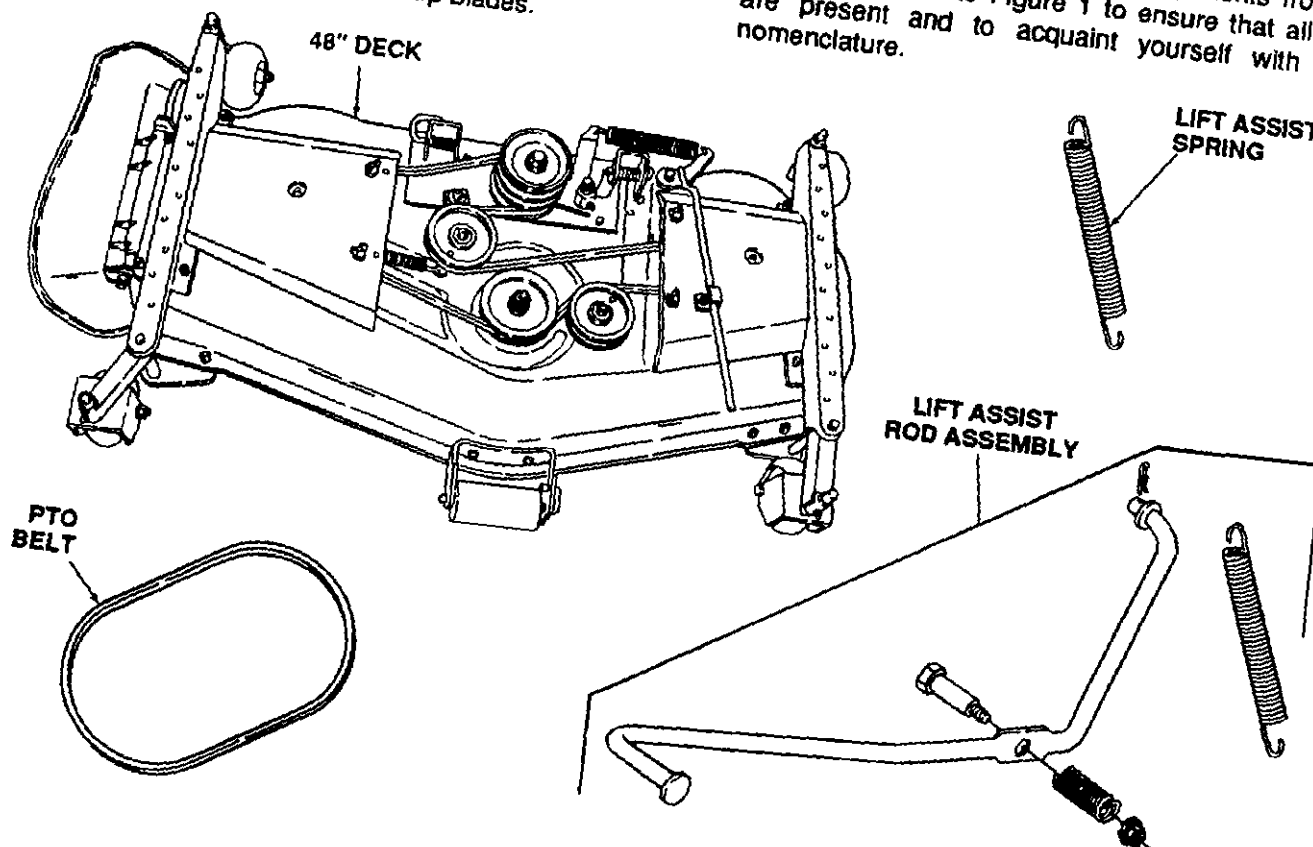
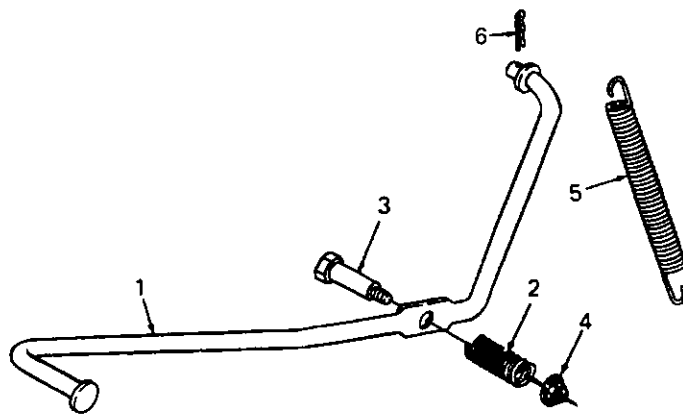


Figure 1

SECTION II. TRACTOR AND DECK PREPARATION

A. TRACTOR PREPARATION

1. Referring to Figure 2, remove lock nut from shoulder bolt. Remove lock nut, spring and shoulder bolt from lift assist rod.



- | | |
|--------------------|-----------------------|
| 1. Lift Assist Rod | 4. Lock Nut |
| 2. Spring | 5. Lift Assist Spring |
| 3. Shoulder Bolt | 6. Hairpin Cotter |

Figure 2

2. Observe the location of components of the right-rear implement lift assist rod assembly, pre-installed on tractor frame. The additional lift assist rod assembly, supplied with the 48" mower deck, must be installed in the same fashion at the left rear of the tractor frame.
3. Install shoulder bolt through the hole in lift assist rod and slide spring onto shoulder bolt.
4. Referring to Figure 3, assemble shoulder bolt, spring and lift assist rod to tractor frame and secure with lock nut.
5. Raise the rearward end of lift assist rod to its highest setting. Suspend one U-shaped end of the lift assist spring from the forward end of lift assist rod between the outside hairpin cotter and

the inside shoulder (welded flat washer). Install the lower U-shaped end of the lift assist spring into the V-shaped hook located at the lower front of the rear fender. (Refer to Figure 4.)

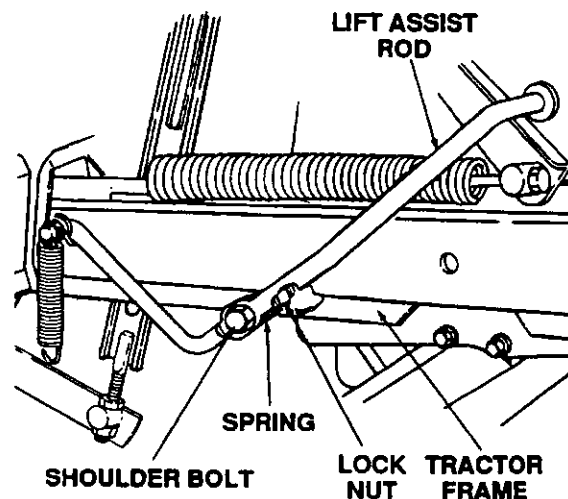
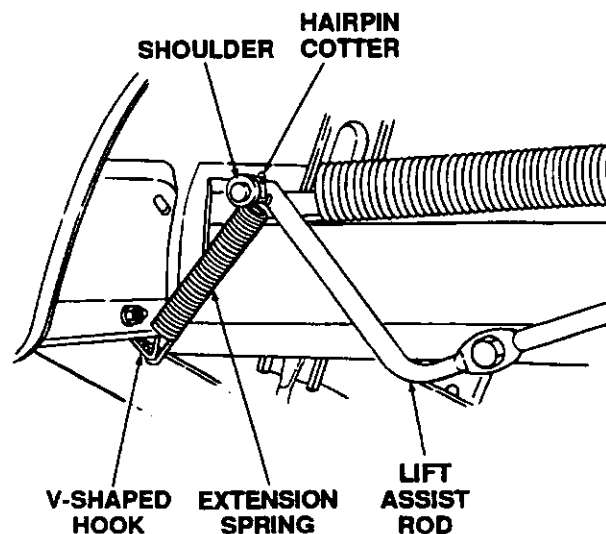


Figure 3



(LEFT SIDE SHOWN)

Figure 4

6. Push downward and then inward on the rearward end of implement lift assist rod so the disk (at the rearward end of the lift assist rod) is inside the tractor frame. (Refer to Figure 5.)

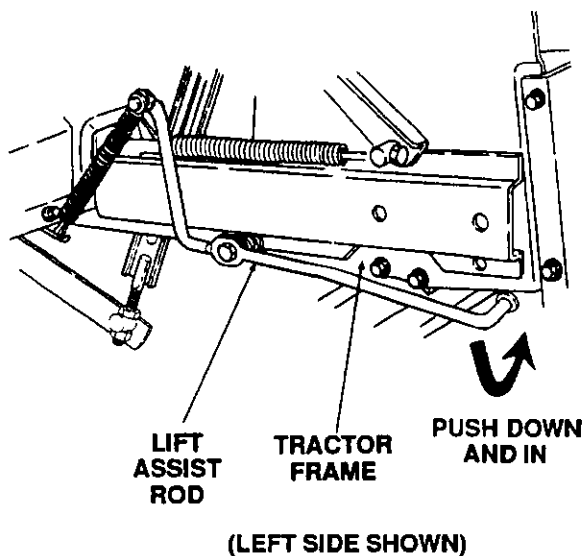


Figure 5

7. Repeat steps 5 and 6 for installing the lift assist spring onto the implement lift assist rod located on the right side.

B. DECK PREPARATION

For ease of assembly, the chute deflector is shipped with the torsion spring mounted and tie-wrapped in place. (Refer to Figure 6.)

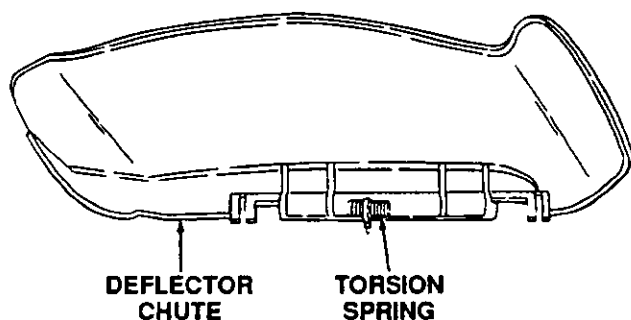


Figure 6

1. Refer to Figure 7 and mount chute deflector on the right hand castor channel hinge. Insert tapered end of hinge pin (as shown) making sure it goes through the torsion spring and bottoms out in opposite end of the chute deflector. Cut, and remove tie-wrap from torsion spring.

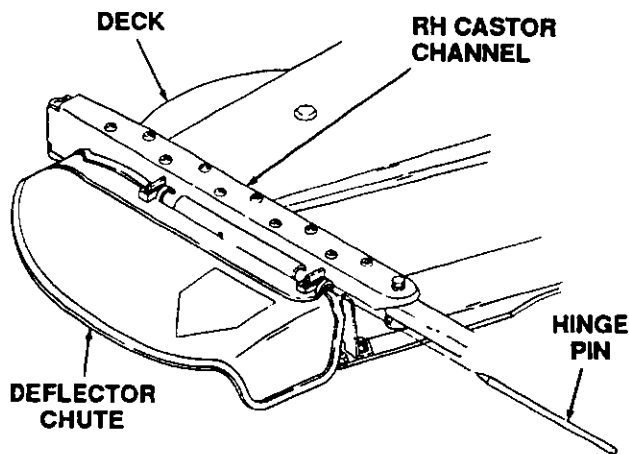


Figure 7

2. When the hinge pin is assembled correctly, the end should be slightly past flush with the chute deflector. (Refer to Figure 8.)

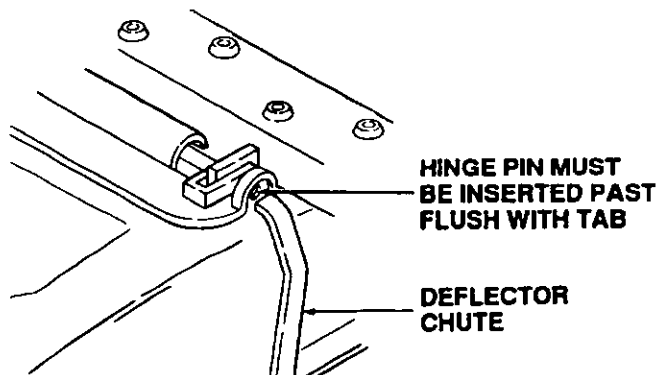


Figure 8

SECTION III. INSTALLATION AND REMOVAL OF DECK ASSEMBLY

A. INSTALLATION OF DECK



WARNING

Before performing mower deck installation, place PTO switch in "OFF" position, engage brake pedal lock, turn ignition key to "OFF" position and remove key from switch.



WARNING

When handling the mower deck, be careful not to cut yourself on the sharp blades.



WARNING

The tractor and mower deck must be placed on a hard, level surface during installation.

1. Position tractor and mower deck on a hard, level surface.
2. Open tractor hood and disconnect the spark plug wire.
3. In order to facilitate sliding the deck under the tractor, reposition all four ball wheels as shown in Figure 9. Remove quick release pins and rotate right rear ball wheel outward 90 degrees and left rear ball wheel inward 90 degrees. Remove quick release pins and rotate left front castor assembly outward 80 degrees (maximum rotation) and raise right front castor assembly to its uppermost position (but do not rotate). Reinstall three of the quick release pins to secure three of the ball wheels in their uppermost positions so the deck is in the lowest position possible relative to the hard, level surface below. The left front castor assembly cannot be secured with a quick release pin when it is in its rotated position.
4. Refer to Figure 10 and position the deck on the right side of the tractor with the front of the deck facing toward the front of the tractor.

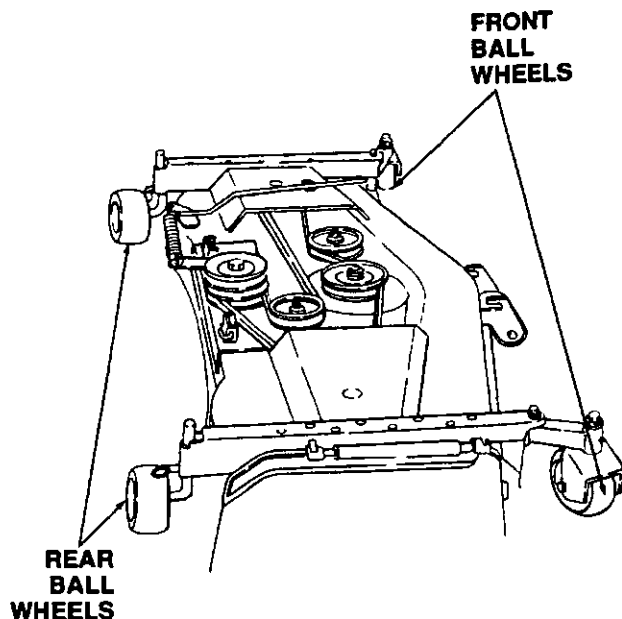


Figure 9

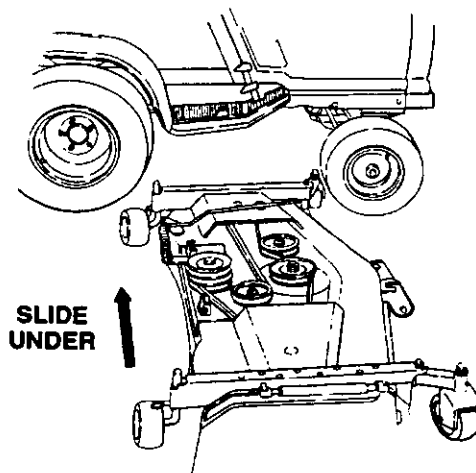


Figure 10



CAUTION

To avoid possible equipment damage, make sure that the tractor implement lift handle is raised to its highest setting before sliding the deck under the tractor.

5. Raise tractor implement lift handle to its highest setting. Slide the deck under the tractor until both rear bracket slots of deck align with both implement lift links of the tractor. (Refer to Figure 11.)

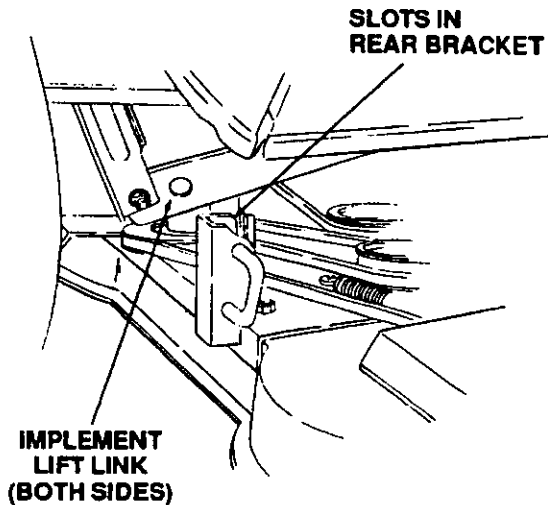


Figure 11

6. Reposition all four wheels in their original positions and secure in place with the quick release pins.



NOTE

If front lift rod bracket assembly is not attached to tractor install as indicated in steps 7 and 8.

7. Refer to Figure 12 to determine proper positioning of the front lift rod bracket assembly. Push downward and hold the tractor quick attach rod. Slide

the left and right shoulder bolts of the front lift rod bracket assembly rearward into the left and right tractor latch receivers.

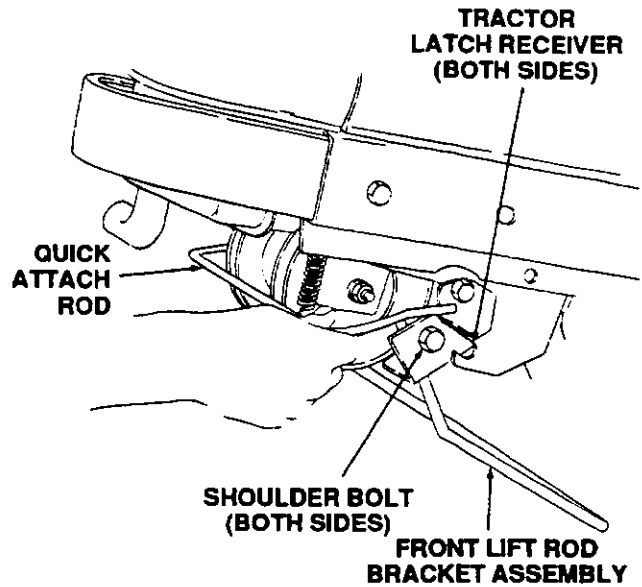


Figure 12

8. Release the tractor quick attach rod so it is held against the tractor frame by the spring thereby securing the front lift rod bracket assembly in the tractor latch receivers. (Refer to Figure 13.)

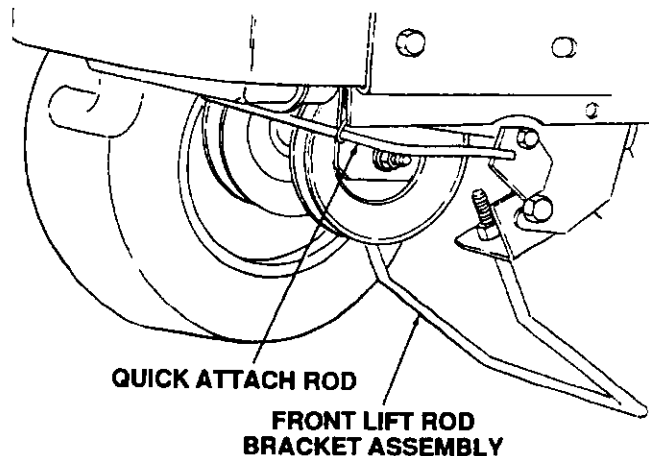


Figure 13

9. Hold front lift rod upward and slide mower deck forward. Lower front lift rod so it rests to the rear of front roller bracket slots of the deck. (Refer to Figure 14.)

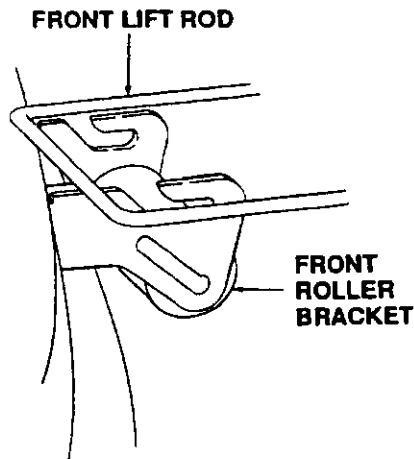


Figure 14

10. Slide deck rearward in order to engage front lift rod fully forward in the slots of the deck front roller bracket. (Refer to Figure 15.)

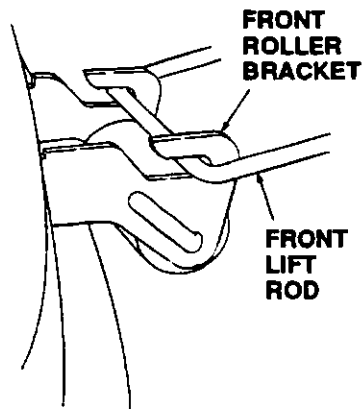


Figure 15

11. If not previously accomplished, pull deck rear bracket pins outward, turn upward and release so both spring loaded pins are held against the outside surface of the brackets in their disengaged positions. (Refer to Figure 16.)

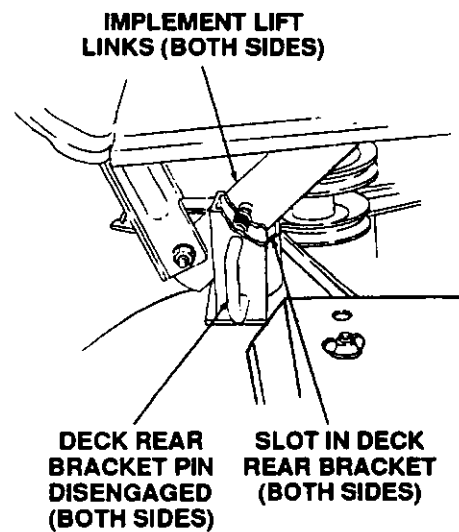


Figure 16

12. Carefully engage tractor implement lift links (left and right) into deck rear bracket slots (left and right) as tractor implement lift handle is lowered to its lowest setting. (Refer to Figure 17.)

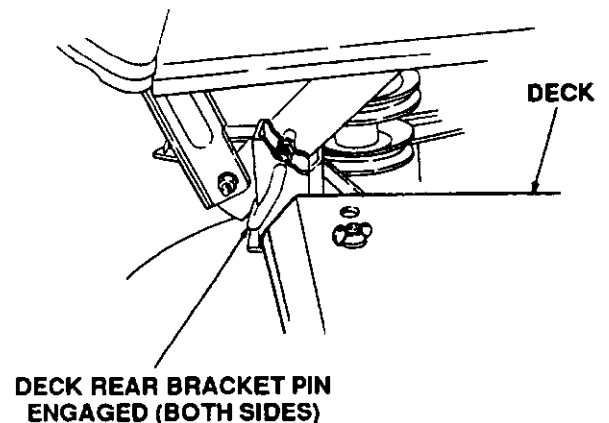


Figure 17

13. Pull deck rear bracket pins outward, turn upward so open ends of pins are outside the brackets and release. Adjust each pin until it passes through the hole on the inside of the bracket and the hole in the lift link.

NOTE

In order to facilitate full engagement of each pin through the hole of each lift link, lift the side of the deck slightly. While raising or lowering deck, move lift link into position until the pin passes through the hole in the link.

14. Disengage deck idler arm lever from its stop bracket and release the spring tension until the lever is at the outside of the deck. (Refer to Figure 18.)

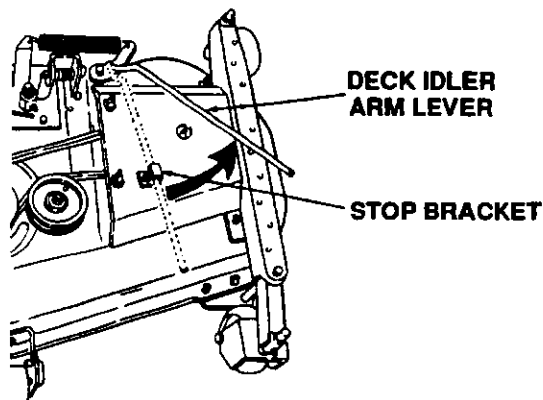


Figure 18



WARNING

The exhaust system is **HOT**. To avoid personal injury, allow the engine and exhaust system to cool before proceeding with the following PTO belt installation instructions.

15. Install forward end of the PTO belt on engine PTO clutch pulley by passing the belt upward inside the tractor frame. Ensure that narrow side of PTO belt engages the groove of the pulley. (Refer to Figure 19.)

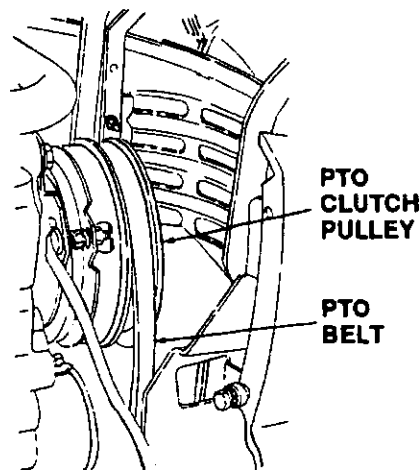


Figure 19

16. Twist the PTO belt 1/4 turn to engage the narrow sides of the belt into the grooves of the two tractor front lower pulleys. Push belt towards center double pulley on deck making sure it is between the legs of front lift rod. (Refer to Figure 20.)

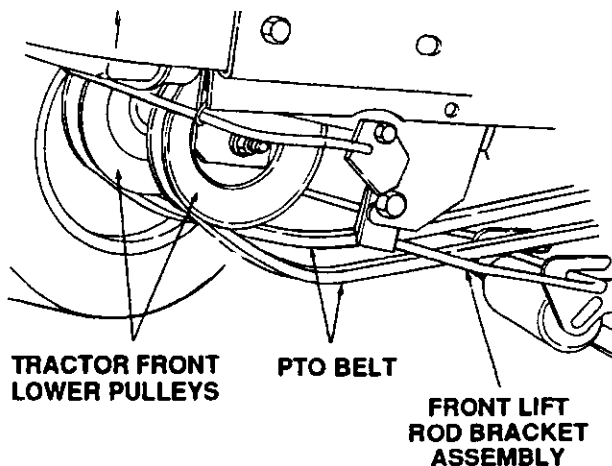


Figure 20

17. Install rearward end of the PTO belt on upper pulley of deck center double pulley. Ensure that the narrow side of belt engages the groove of the upper pulley. (Refer to Figure 21.)

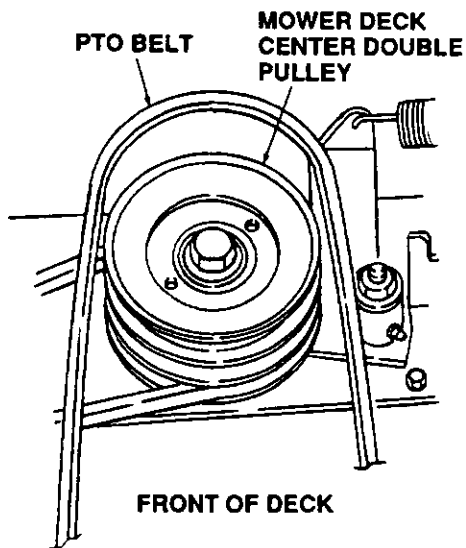


Figure 21

18. Engage deck idler arm lever into its stop bracket to provide tension on the PTO belt. (Refer to Figure 22.)

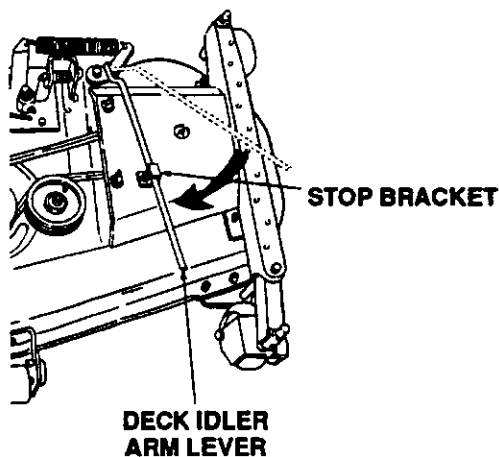


Figure 22

19. Raise tractor implement lift handle to its highest setting. Push downward and outward on rearward end of each of the two implement lift assist rods located at the right rear and left rear of the tractor. (Refer to Figure 23.)

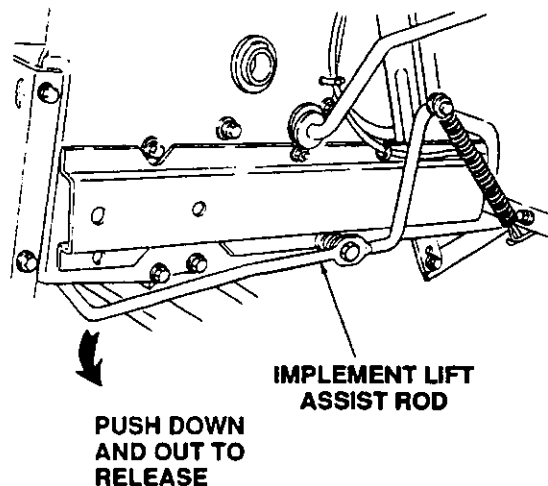


Figure 23

20. Releasing tension on the spring, allow each lift assist rod to rise upward (outside the tractor frame) to its highest position. (Refer to Figure 24.)

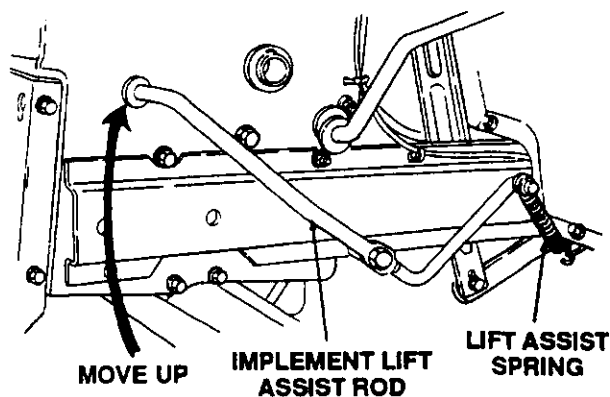


Figure 24

21. Remove lower end of each lift assist spring from the V-shaped hooks located at lower front of each rear fender. (Refer to Figure 25.)

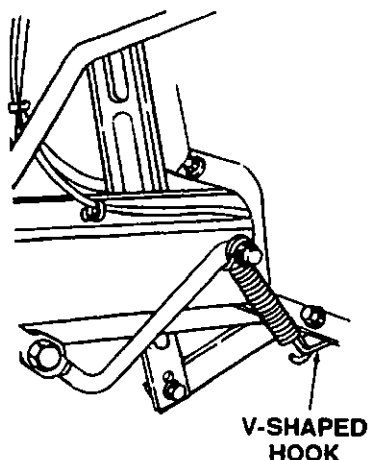


Figure 25

22. Install lower end of each spring into the hole in mower deck rear lift bracket. (Refer to Figure 26.)

NOTE

Ensure that upper end of spring is suspended from upper forward end of lift assist rod between the inside welded washer and outside hairpin cotter.

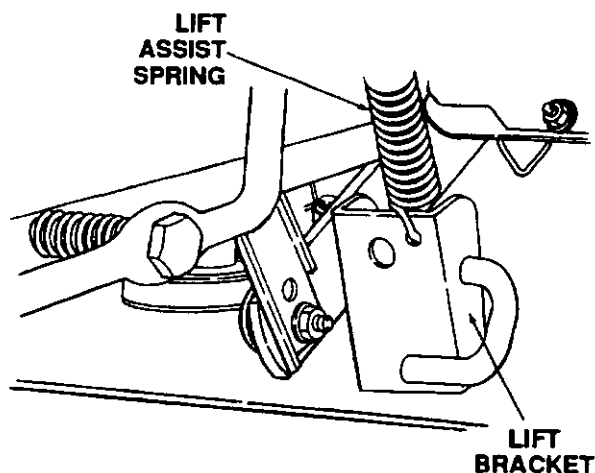


Figure 26

23. Push downward and then inward on rearward end of each implement lift assist rod so disk (at rearward end of lift assist rod) is inside the tractor frame. (Refer to Figure 23.)
24. Connect spark plug wire and close tractor hood.

B. REMOVAL OF DECK

! WARNING

Before performing mower deck installation, place PTO switch in "OFF" position, engage brake pedal lock, turn ignition key to "OFF" position and remove key from switch.

! WARNING

When handling the mower deck, be careful not to cut yourself on the sharp blades.

! WARNING

The tractor and mower deck must be placed on a hard, level surface during removal.

1. Position tractor and mower deck on a hard, level surface.
2. Open tractor hood and disconnect the spark plug wire.
3. In order to facilitate sliding the deck out from under the tractor, raise tractor implement handle to its highest setting and reposition all four ball wheels as shown in Figure 27. Remove quick release pins and rotate right rear ball wheel outward 90 degrees and left rear ball wheel inward 90 degrees. Remove quick release pins and rotate left front castor assembly outward 80 degrees (maximum rotation) and raise right front castor assembly to its uppermost position (but do not rotate). Reinstall three of the quick release pins to secure three of the ball wheels in their uppermost positions so the deck is in the lowest position possible relative to the hard, level surface below. The left front castor assembly cannot be secured with a quick release pin when it is in its rotated position.

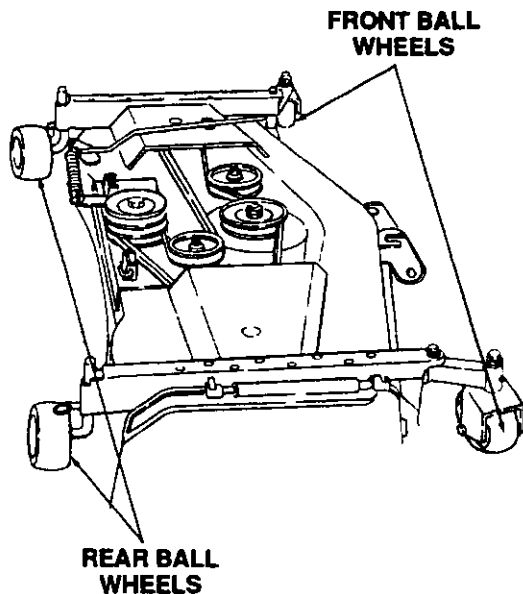


Figure 27

4. Push downward and outward on rearward end of each of the two implement lift assist rods located at the right rear and left rear of the tractor. (Refer to Figure 28.)

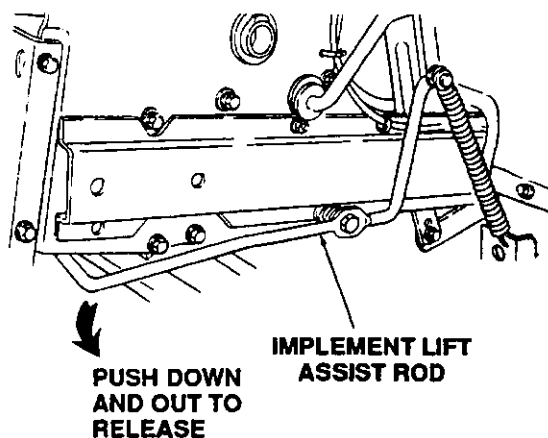


Figure 28

5. Releasing tension on the spring, allow each lift assist rod to rise upward (outside the tractor frame) to its highest position. (Refer to Figure 29.)

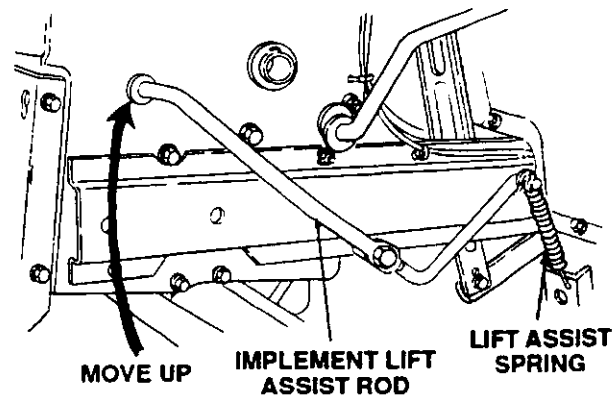


Figure 29

6. Remove lower end of each spring from the hole in mower deck rear lift bracket. (Refer to Figure 30.)

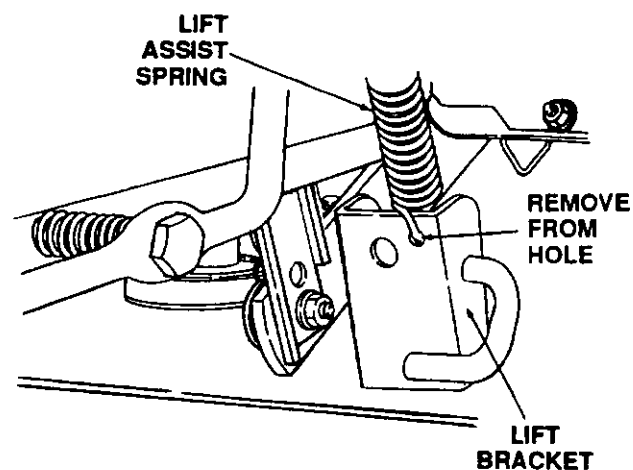


Figure 30

7. Install lower end of each spring into the V-shaped hooks located at lower front of each rear fender. (Refer to Figure 31.)

NOTE

Ensure that the upper end of each spring is suspended from the upper forward end of lift assist rod between the inside welded washer and outside hairpin cotter.

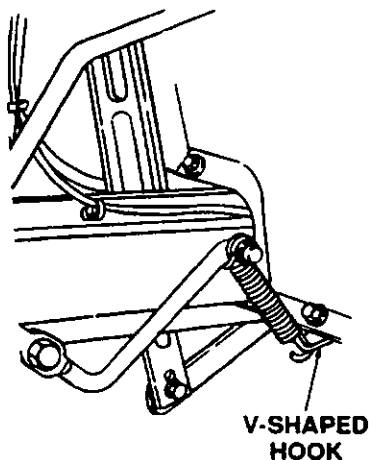


Figure 31

8. Push downward and inward on rearward end of each implement lift assist rod so the disk (at rearward end of lift assist rod) is inside the tractor frame. (Refer to Figure 28.)
9. Lower tractor implement lift handle to its lowest setting. Disengage deck idler arm lever from its stop bracket and then release the spring tension until the lever is at the outside of the deck. (Refer to Figure 32.)

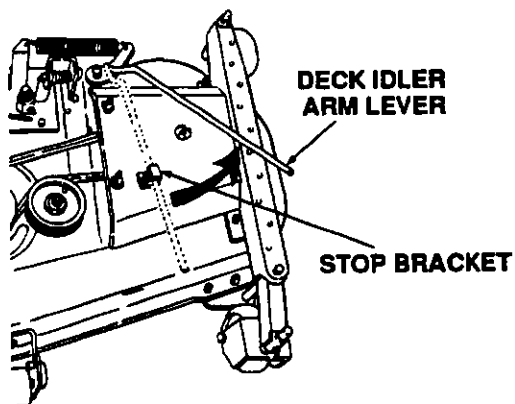


Figure 32

10. Remove rearward end of PTO belt from the upper pulley of deck center double pulley. (Refer to Figure 33.)

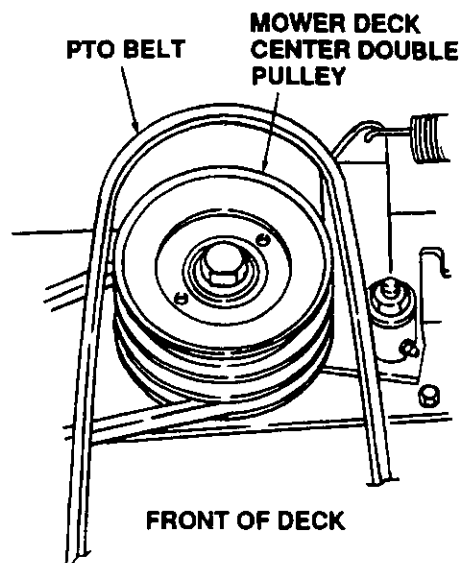


Figure 33

11. Engage deck idler arm lever into its stop bracket. (Refer to Figure 34.)

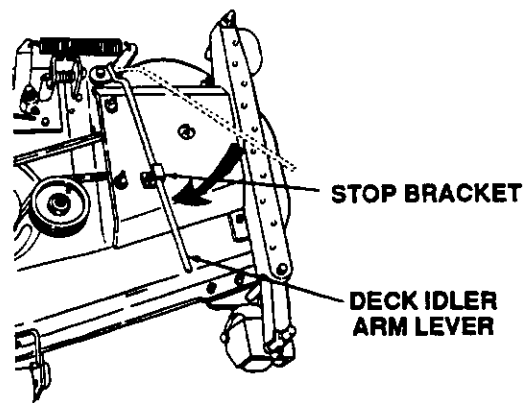


Figure 34



WARNING

The exhaust system is **HOT**. To avoid personal injury, allow the engine and exhaust system to cool before proceeding with the following PTO belt removal instructions.

12. Remove forward end of the PTO belt from engine PTO clutch pulley. (Refer to Figure 35.)

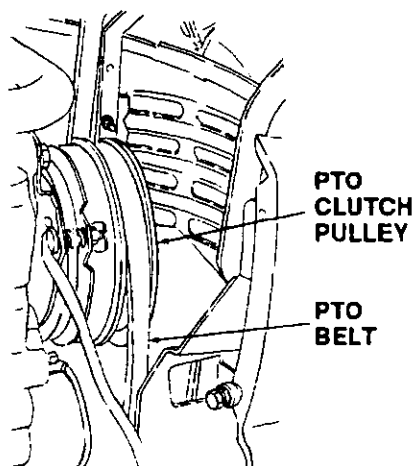


Figure 35

13. Pass PTO belt downward (inside tractor frame) until the belt is below the two tractor front lower pulleys. (Refer to Figure 36.)

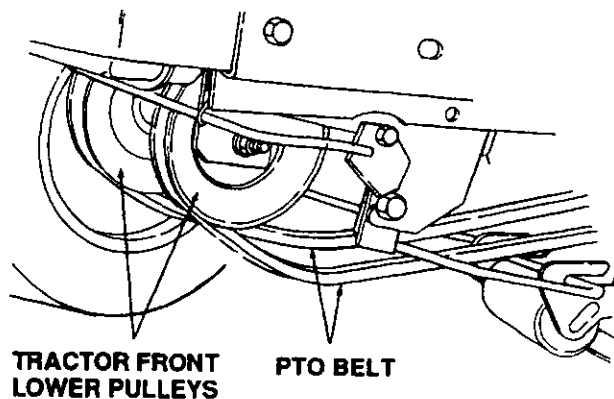


Figure 36

14. From the front of the tractor, pull PTO belt through front lift rod and then clear of the tractor.
15. Pull deck rear bracket pins outward, turn downward and release so both spring loaded pins are held against the outside surface of the brackets in their disengaged positions. (Refer to Figure 37.)

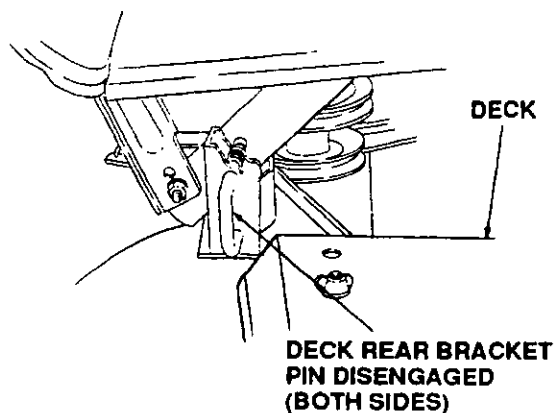


Figure 37

16. Raise tractor implement lift handle to its highest setting. Slide the mower deck forward so front lift rod rests to the rear of, and free of, front roller bracket slots of the deck. (Refer to Figure 38.)

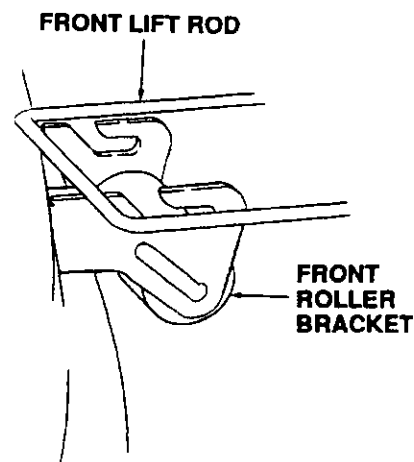


Figure 38

17. Hold front lift rod upward and slide mower deck rearward. Lower front lift rod so it rests to the front of, and free of, front roller bracket slots of the deck. (Refer to Figure 39.)

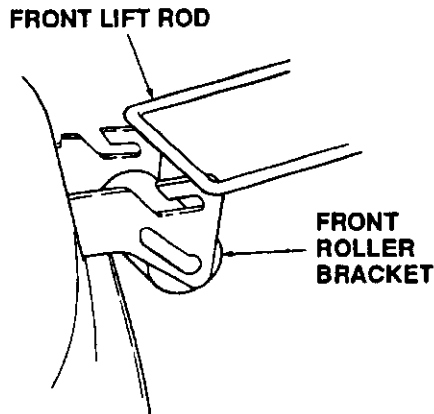


Figure 39

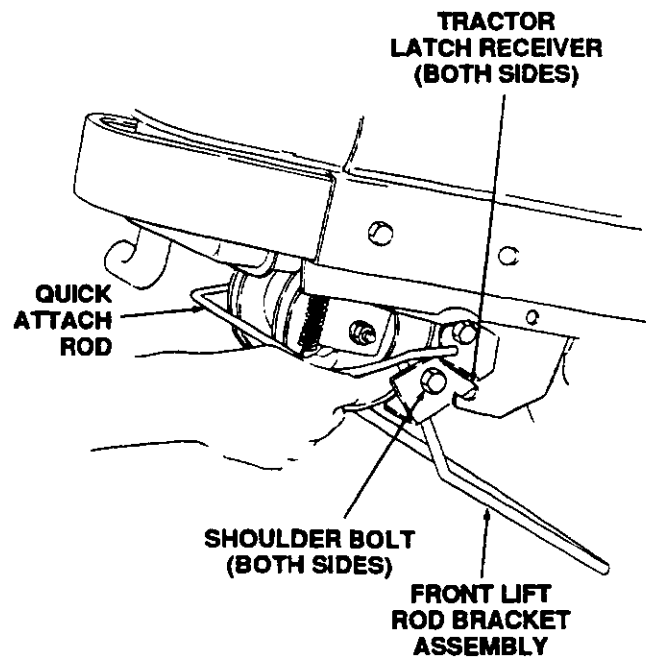


Figure 40

18. Referring to Figure 40, push downward and hold the tractor quick attach rod. Slide the left and right shoulder bolts of front lift rod bracket assembly forward, and free of, the left and right tractor latch receivers. Release tractor quick attach rod so it is held against the tractor frame by the spring.



CAUTION

To avoid possible equipment damage, make sure that tractor implement lift handle is raised to its highest setting before sliding the deck out from under the tractor.

19. With tractor implement lift handle raised to its highest setting, slide the deck to the right and out from under the tractor. (Refer to Figure 41.)
20. Connect the spark plug wire and close tractor hood.

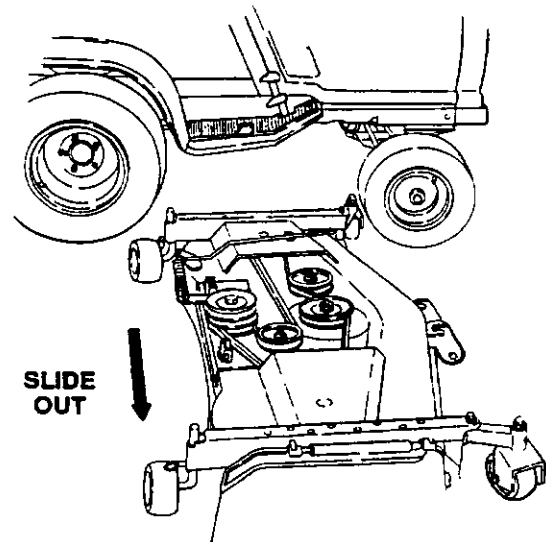


Figure 41

SECTION IV. ADJUSTMENTS

A. DECK LEVELING ADJUSTMENTS

In order to achieve even cutting, the mower deck must be properly leveled. This leveling procedure will result in the outside blades having corresponding front cutting-edge-to-ground measurements within 1/16 inch of each other. To level the mower deck, proceed as follows:



WARNING

Before making any adjustments, place PTO switch in "OFF" position, engage brake pedal lock, turn ignition key to "OFF" position, remove key from switch and remove spark plug wire to avoid accidental starting and injury.



WARNING

When adjusting the mower deck, be careful not to cut yourself on the sharp blades.



NOTE

If the mower deck is not level, the mower will not cut your lawn evenly.



NOTE

Check the tires for proper inflation before making a level adjustment. To level the deck, the tractor and deck **MUST** be placed on a hard, level surface during adjustment.

B. SIDE TO SIDE LEVELING ADJUSTMENTS



NOTE

The middle cutting blade will not be considered during the side to side leveling adjustment.

1. Position the tractor and mower deck on a hard, level surface.
2. Open tractor hood and disconnect the spark plug wire.
3. The mower deck front and rear ball wheels must be set to their uppermost positions in the deck brackets so the deck rests at its lowest position relative to the hard, level surface below. Refer to **CUTTING HEIGHT ADJUSTMENT**.
4. Raise tractor implement lift handle to its highest setting.
5. Position the mower blades so that the ends of each blade face the right and left sides of the tractor. Refer to Figure 42.

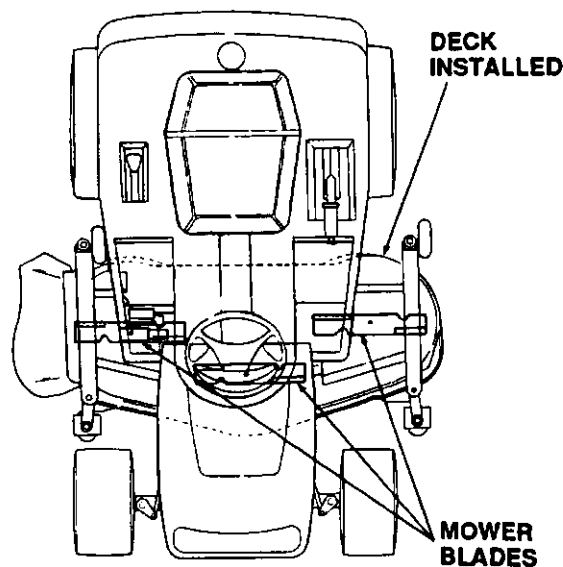
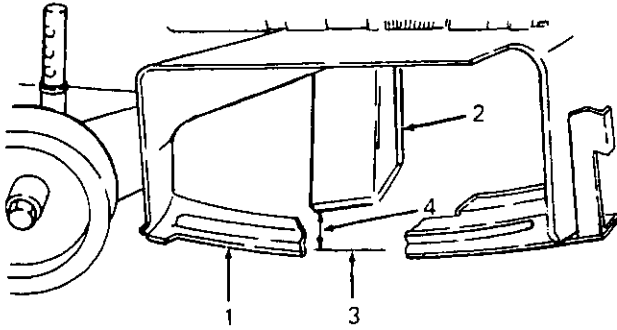


Figure 42

6. Refer to Figure 43 and measure and record the distance from the hard, level surface, to the outermost cutting edge of the right blade. Repeat this step for the left blade. If the two blade heights are not within 1/16 inch, proceed to steps 7, 8 and 9. If the two blade heights are within 1/16 inch, proceed to **FRONT TO BACK LEVELING ADJUSTMENT**.



1. Deflector Shield
2. Blade
3. Hard Level Surface
4. Measure This Surface

Figure 43

7. Lower the deck onto the hard, level surface.
8. Side to side leveling is obtained utilizing the adjustment ferrule and left hand hanger bracket. (Refer to Figure 44.)

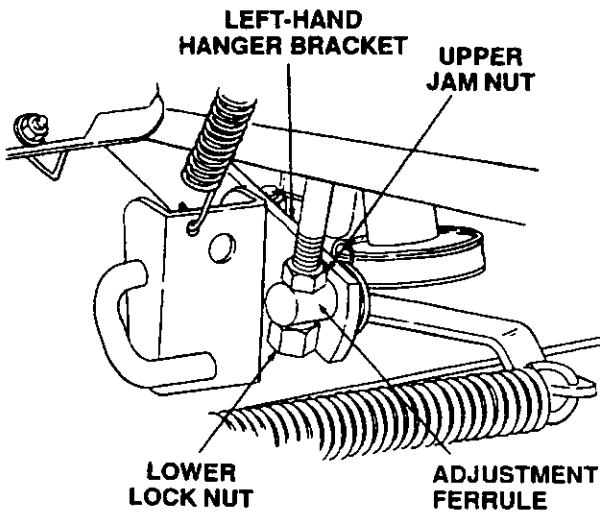


Figure 44

9. Loosen upper jam nut on hanger bracket. Turn lower lock nut clockwise to raise left side of mower deck. Turn lock nut counterclockwise to lower left side of mower deck. (Refer to Figure 44.)
10. Raise the lift handle to the highest position and recheck the blade measurements described in step 6. If the blade measurements are not within 1/16 inch, repeat steps 7, 8 and 9.
11. Tighten upper jam nut after adjustment is completed.

C. FRONT TO BACK LEVELING ADJUSTMENT



The middle cutting blade will not be considered during the front to back leveling adjustment.

1. Raise the deck to its highest position.
2. Position the mower blades so the ends of each blade point to the front and to the rear of the tractor. (Refer to Figure 45.)

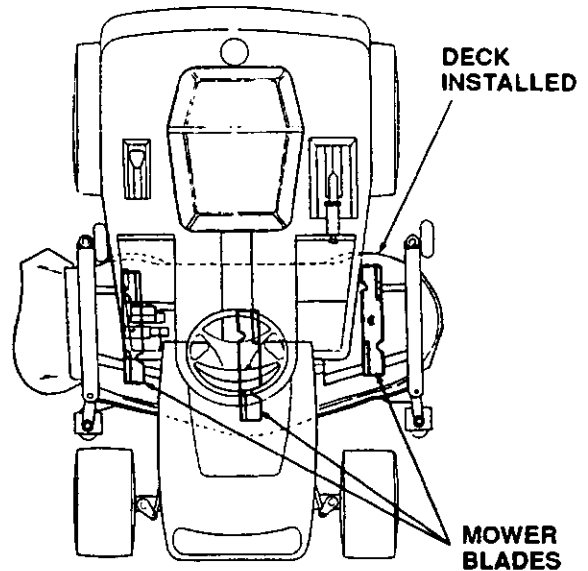


Figure 45

3. Initially adjust front lift rod to allow 5/8 inch of thread to protrude above both lock nuts of front lift rod bracket. (Refer to Figure 46.)

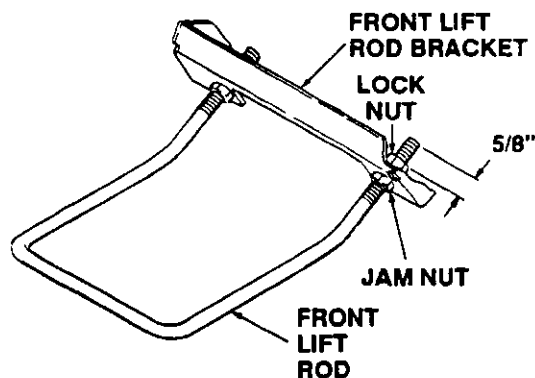


Figure 46

4. Refer to Figure 47. Measure and record the distance from the front cutting edge to the ground (measurement A), and from the rear cutting edge to the ground (measurement B), for each of the outside blades. The front edge of each blade (measurement A) should be equal to its back edge (measurement B).
5. Lower the deck onto the hard, level surface.
6. To level the blades, adjustment of the front lift rod is required. Refer to Figure 46 and proceed as follows:
7. Loosen rear jam nuts on front lift rod and turn front lock nuts clockwise to raise front of mower deck or counterclockwise to lower front of mower deck.

8. Raise the deck to the highest position. Recheck the blade measurements described in step 4. If the resultant measurements are not correct, repeat steps 5, 6 and 7 until proper measurements are obtained.
9. Tighten rear jam nuts after adjustment is completed.
10. Connect the spark plug wire.

D. CUTTING HEIGHT ADJUSTMENT



WARNING

Before making any adjustments, place PTO switch in "OFF" position, engage brake pedal lock, turn ignition key to "OFF" position, remove key from switch and remove spark plug wire to avoid accidental starting and injury.



WARNING

When adjusting the mower deck, be careful not to cut yourself on the sharp blades.



NOTE

Cutting height adjustment should be performed only **AFTER** the mower deck has been properly leveled.

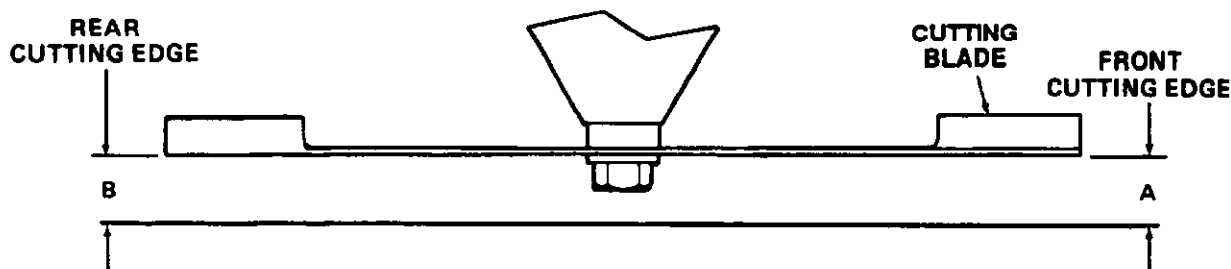


Figure 47

NOTE

Check the tires for proper inflation before adjusting the cutting height. To adjust the cutting height, the tractor and deck **MUST** be placed on a hard, level surface during adjustment.

When the mower deck is in use all four ball wheels must contact the ground. Therefore, the cutting height is adjusted by raising or lowering the ball wheels. When adjusting the mower deck cutting height using the quick release pins, take note of the following: the highest mounting holes for the front ball wheels correspond to the lowest cutting height for the mower deck; the lowest mounting holes for the rear ball wheels correspond to the lowest cutting height for the mower deck. In order to adjust the mower deck cutting height by raising or lowering the ball wheels, refer to Figure 48, and proceed as follows:

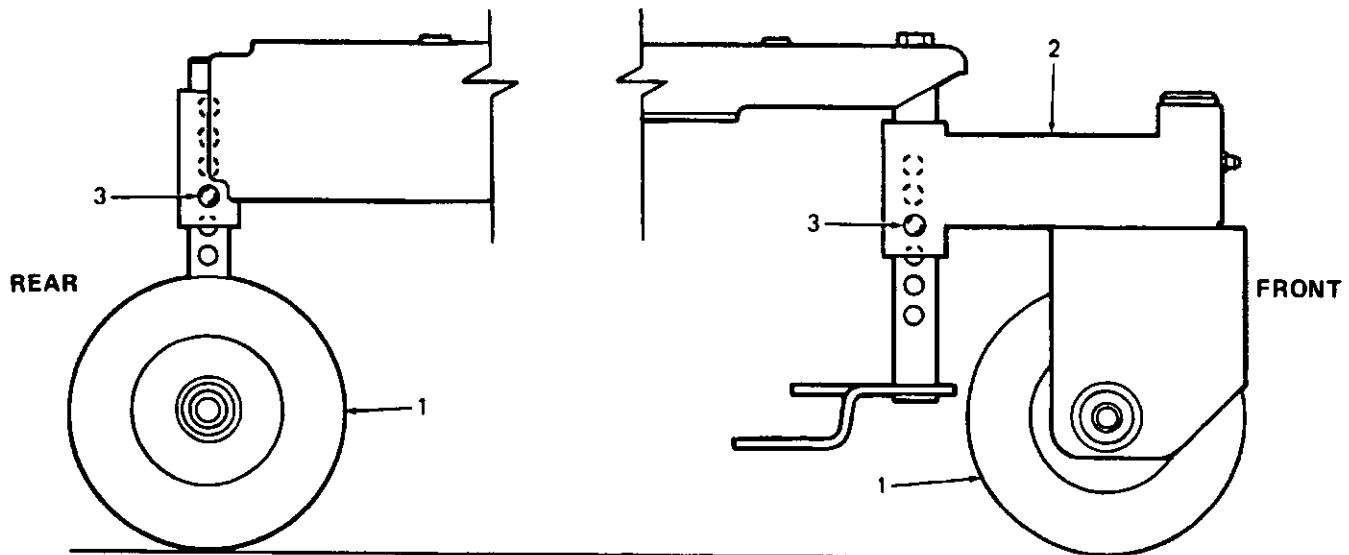
1. Lower tractor implement lift handle to its lowest setting.
2. Remove quick release pins from both rear ball wheel spindles and front ball wheel castor assemblies.

3. Raise (if necessary) tractor implement lift handle to set the mower deck at the desired cutting height.
4. Reinsert the quick release pins to secure all four ball wheels at the positions required to allow each ball wheel to **just** contact the ground.

NOTE

All four ball wheels must be installed using the same relative adjustment hole locations. Remember, the highest mounting holes for the front ball wheels correspond to the lowest cutting height for the mower deck, and the lowest mounting holes for the rear ball wheels correspond to the lowest cutting height for the mower deck.

5. The correct mower deck cutting height adjustment is achieved when the tractor implement lift handle is lowered to the desired mower deck cutting height and all four mower deck ball wheels just contact the hard, level surface below.



1. Ball Wheel
2. Ball Wheel Adjusting Bracket
3. Quick Release Pin

Figure 48

SECTION V. MAINTENANCE

A. CLEANING AND BLADE CARE



WARNING

Before performing any maintenance, place PTO switch in "OFF" position, engage brake pedal lock, turn ignition key to "OFF" position, remove key from switch, and remove the spark plug wire, to avoid accidental starting and injury.



WARNING

Be careful not to cut yourself when sharpening the blades or cleaning the underside of the mower deck.

Clean the underside of the mower deck at the end of the mowing season and when buildup of cut material on the underside is noticed. Also remove the belt covers and remove any accumulation.

The cutting blades must be kept sharp at all times.



NOTE

Sharpen ends evenly so that the blades remain balanced and the same angle of sharpness is maintained. However, if the cutting edge of a blade has been sharpened to within 3/8 inch of the wind wing, it is recommended that new blades be installed. (Refer to Figure 49.) New blades are available at your authorized dealer.

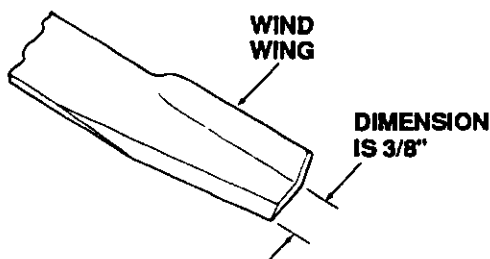


Figure 49

When removing the blades, hold the hex shaped pulley hub with a 1-1/4 inch socket wrench to remove the hex nut holding the blade. A block of wood may be placed between housing and cutting edge of blade to assist in removal of hex nut securing blade. (Refer to Figure 50.)

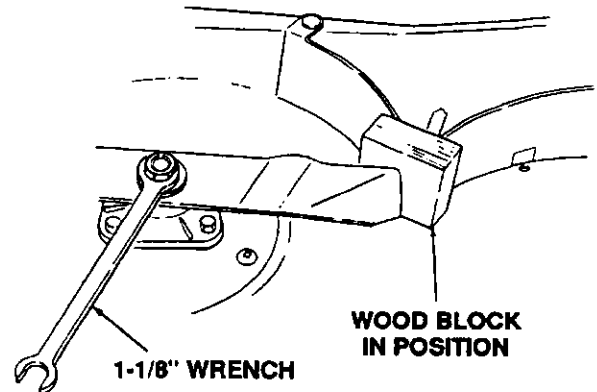


Figure 50

After replacing blades, grease the threaded end of the shaft to prevent rust buildup.

When replacing the blades, be sure they are assembled so the cutting edges are in the direction of rotation with the wind wings pointed upward. Tighten the nuts to 90 to 110 ft-lbs. (122 to 149 N-m).

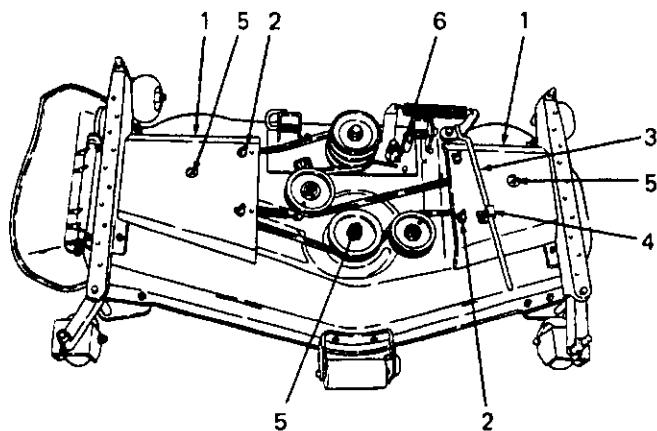


NOTE

If the spindle pulley nuts are removed for any reason, they should be retightened to 50 to 60 ft-lbs. (68 to 81 N-m) torque when replaced.

B. LUBRICATION

After every 50 hours of operation and/or before putting into winter storage, lubricate the blade spindle assemblies, ball wheels, front castor wheel brackets, idler pivot bolt and idler pivot shaft using 251H EP grease or equivalent No. 2 multi-purpose lithium grease. The grease will be expelled from the top spindle seal. Since the spindle pulley covers the top spindle seal, the expelled grease cannot be seen. When the spindle is fully greased, the expelled grease will cause the top spindle seal to give off a muffled crackling noise. (Refer to Figure 51.)



- | | |
|-----------------------------|-------------------------------------|
| 1. Spindle Belt Cover | 5. Spindle Assembly Grease Fittings |
| 2. Thumb Screws and Washers | 6. Idler Arm Grease Fitting |
| 3. Idler Arm Lever | |
| 4. Stop Bracket | |

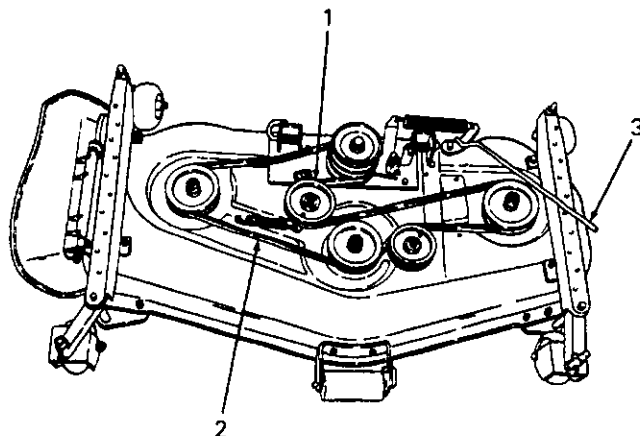
Figure 51

C. SPINDLE DRIVE BELT REPLACEMENT

In order to replace the spindle drive belt, refer to Figures 51 and 52 and proceed as follows:

1. Disengage idler arm lever from its stop bracket and then release spring tension until the lever is at the outside of the deck.

2. Remove the hardware that secures the spindle belt covers to the deck.
3. Remove spindle belt covers to expose the belt.
4. Remove old drive belt.
5. Install a new belt. Refer to Figure 52 for proper placement of belt. Ensure that the narrow side of the belt engages the grooves of all pulleys.
6. Reinstall spindle belt covers.
7. Engage idler arm lever into its stop bracket.



- | | |
|-----------------------|--------------------|
| 1. Idler Pulley | 3. Idler Arm Lever |
| 2. Spindle Drive Belt | |

Figure 52

LUBRICATION GUIDE

The life of any machine depends upon the care it is given. Proper lubrication is a very important part of that care.

Be certain that all lubrication fittings are assembled in place, using the lubrication illustration as a guide.

Always lubricate the deck thoroughly before taking it to the field. Use a pressure lubricating gun.

Be sure all fittings are free from dirt and paint so the lubricant is certain to enter the bearing.

Miscellaneous working parts not provided with lubrication fittings should be oiled daily with a good grade of lubricating oil.

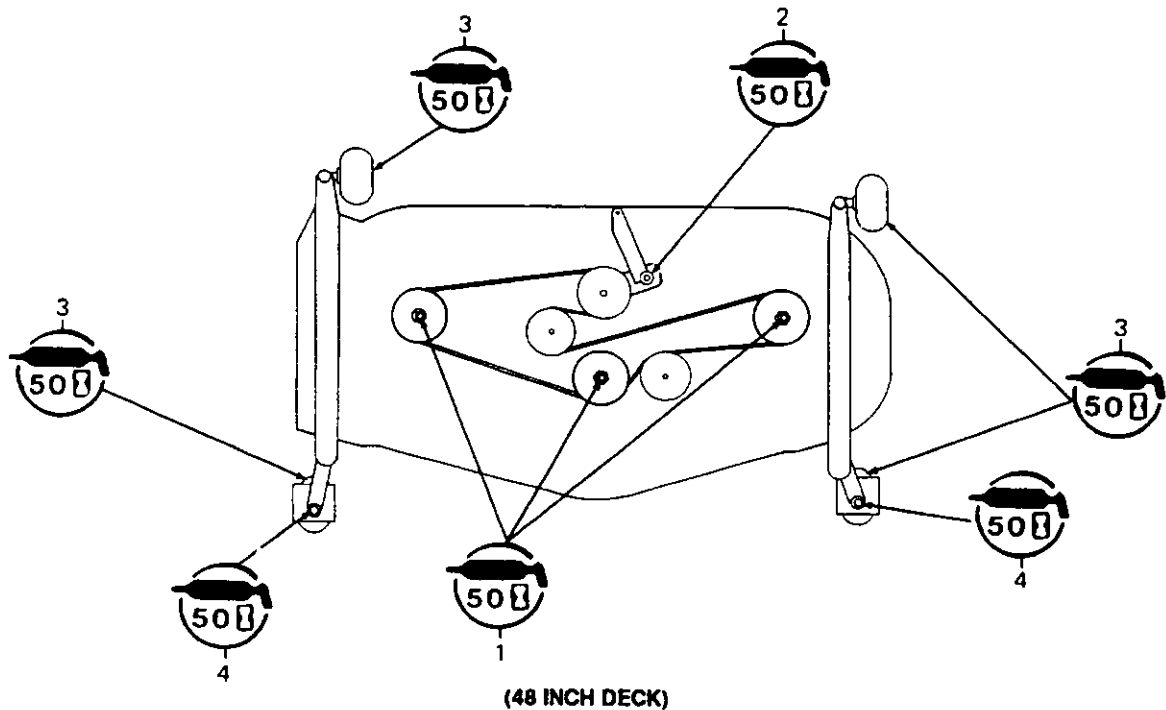
Lubricant is cheap. Use plenty of it. Worn parts can be expensive to replace.

Keep your supply of lubricating oil and grease stored in clean containers, and covered to protect from dust and dirt.

Keep the lubricating gun nozzle clean and wipe dirt from grease fittings before lubricating.

The symbol in the illustration indicates the method of application and the hourly intervals to apply the lubricant.

Use a pressure lubricating gun and apply 251H EP grease (or equivalent No. 2 multi-purpose lithium grease). Lubricate at hourly intervals indicated on symbol.



1. Deck Spindles
2. Idler Arm
3. Ball Wheels
4. Adjusting Bracket

-EVERY 50 HOURS OF OPERATION

Use 251H EP grease or equivalent No. 2 multi-purpose lithium grease.

Q

!

J

E

1

A

J

1