Operators Manual

G40, G44 and G46 Rotary Mowers

Win. Form No. 9-35281

INTRODUCTION

The Model G40, 38" Rotary Mower is shipped as a complete package for installation on Case 220 and 222 tractors. The Model G44, 44" and G46, 48" Rotary Mowers require the G3 mounting kit for Models 220 and 222 or the G5 mounting kit for Model 442 and 444 tractors. The Model G46, 48" mower is not recommended for the Model 220.

This manual covers recommended operating procedures, safety suggestions, adjustments, maintenance information, and installation instructions. Read this manual carefully before operating your rotary mower. Your J. I. Case Compact Tractor Dealer is well qualified to answer any further questions you might have concerning your rotary mower. Also, if the need should arise, his Service Department with factory trained technicians, genuine Case replacement parts and the proper facilities is in a position to provide proper repairs in the shortest time possible.

The definitions "Right, Left, Front and Rear" as used throughout this manual relate to the tractor and rotary mower as the operator is seated facing forward in the normal operating position on the tractor.

Always make certain the tractor PTO (Power Take-Off) clutch is disengaged before starting the engine and when transporting the rotary mower.

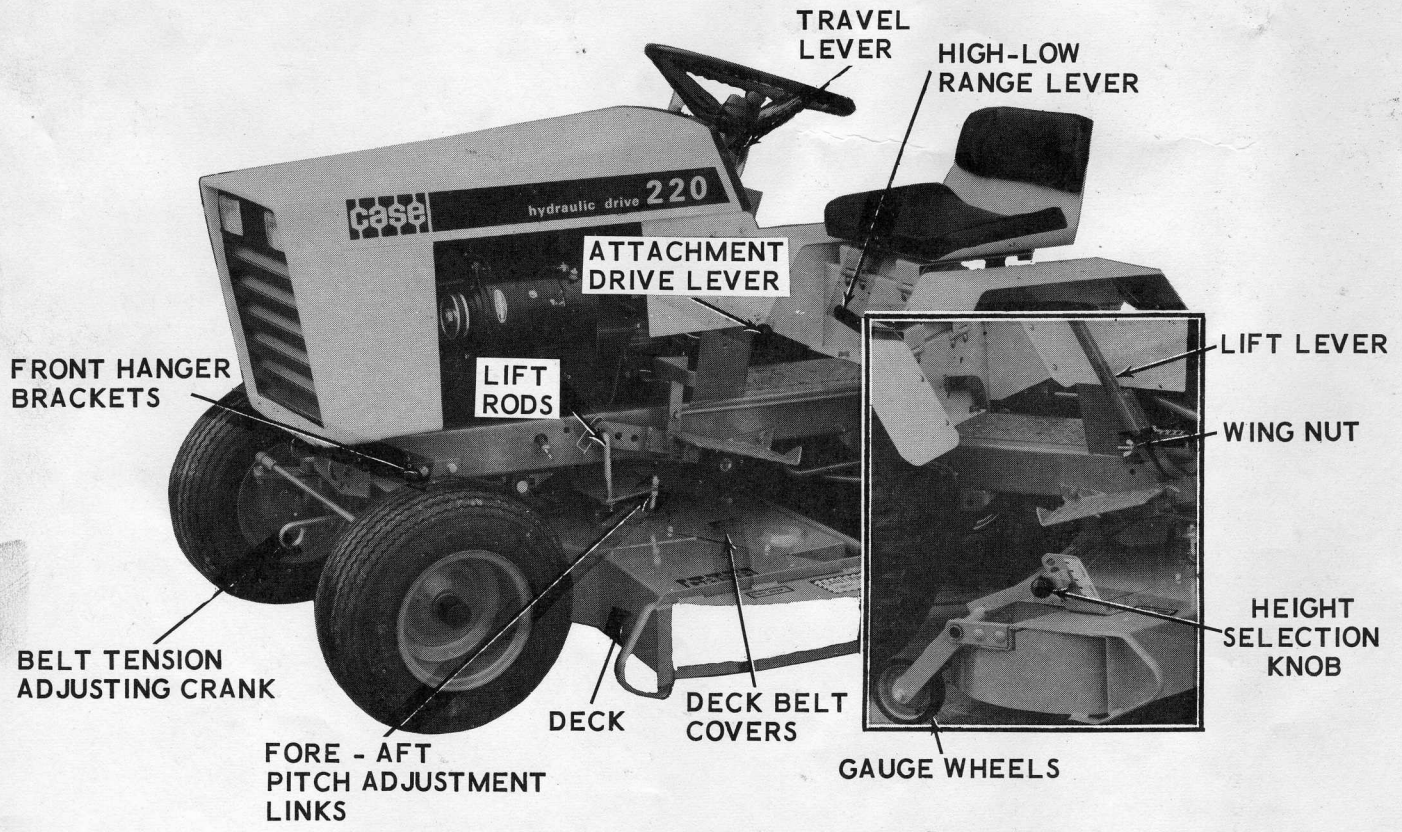


Figure 1. Identification of Principle Components and Controls

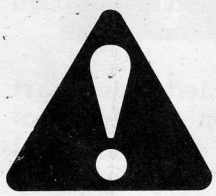
OPERATING CONTROLS

The principle components and controls of your rotary mower are identified in Figure 1 with the same description used throughout this manual.

All controls are conveniently located near the operator's position on the tractor. The mower blades are placed in motion by pulling outward on the tractor PTO (Power Take-Off) clutch lever. The desired mowing height can be quickly adjusted with the height selection knob. See inset photo, Figure 1.

Generally best performance is obtained with the transmission in "Low" range and the engine running between 3/4 and full governed RPM. Adjust the tractor ground speed with the Travel lever according to your mowing conditions.

OPERATING SAFETY SUGGESTIONS



LOOK FOR THIS SYMBOL

TO POINT OUT IMPORTANT

SAFETY PRECAUTIONS

1. Regard your rotary mower as a piece of power equipment and be sure this manual is read and understood by all who operate it.

2. Clear the lawn or area to be mowed of sticks, stones or any hard objects which could come in contact with the blades and be hurled out the discharge opening.

3. Do not permit children or pets in the area while mowing.

4. KEEP FEET AND HANDS AWAY FROM DISCHARGE OPENING AND MAKE NO REPAIRS UNLESS BOTH THE TRACTOR ENGINE AND PTO ARE SHUT OFF.

5. Fill gas tank out of doors and avoid spilling gasoline. Do not fill tank with gasoline while smoking or while engine is running.

6. Never allow children or young teenagers to operate the tractor and rotary mower.

7. Maintain your tractor and rotary mower in top operating condition.

8. Never get on or off the tractor while mower is running.

9. Operate in "Low" range and use greater caution on steep slopes or inclines.

10. Be sure you know how to stop the tractor and mower at a moments notice.

11. Give complete and undivided attention to the job at hand.

12. Stop the engine and disengage PTO clutch when tractor is unattended.

13. Disengage PTO clutch when someone approaches.

14. Do not allow anyone other than the operator to ride on the tractor.

15. Never direct the mower discharge at people, pets, windows, or cars.

16. Disengage the PTO clutch when transporting.

OPERATING METHODS AND TIPS

1. Keep mower blades sharp and balanced as covered in Adjustments and Maintenance Section.

2. Operate engine between 3/4 and full governed throttle, and regulate the ground speed Travel Lever according to mowing conditions. Unless grass is unusually light, always operate in "Low" speed range.

3. If grass is heavy and higher than normal, results can be improved by mowing twice. Make the first cut with the mower set higher than normal; then repeat with the mower set at desired finished cut height. When mowing heavy grass, always discharge clippings away from the uncut area.

4. Figures 2 and 3 illustrate two systems for mowing. If the grass is high or heavy, always mow to throw the clippings away from the uncut area, Figure 2. If the grass is light and more thorough mulching is desired, discharge the clippings toward the center of the uncut area, Figure 3. When mowing in this manner, a final strip of mulched clippings about three to four feet wide will remain near the center of the lawn. This can be easily raked up to leave a well groomed appearance.

5. Trimming will be neater and closer by using the right side of the mower since the clippings will be discharged away from the object. Also the shield over the discharge opening prevents mowing as close to objects.

6. Do not step on the mower deck when getting on or off the tractor. If mounting the tractor from the right side, place your right foot on the right foot rest, your right hand on steering wheel and left hand on the seat back and step onto the tractor, swinging your left foot through between the steering wheel and seat.

   When mounting from the left side, start with your left foot on the left foot rest, your left hand on steering wheel and right hand on seat back and step onto tractor swinging your right foot through between the steering wheel and seat.

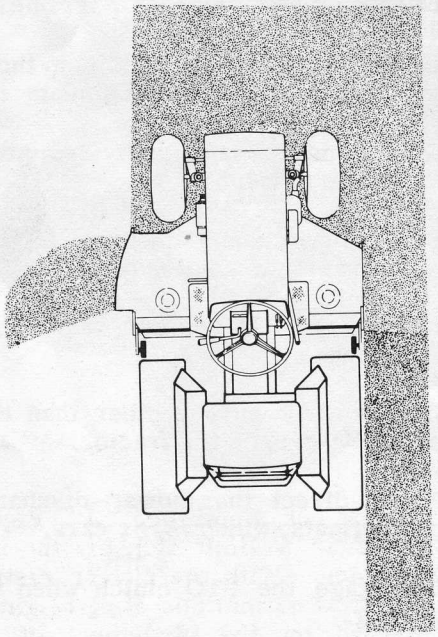


Figure 2. Discharging Grass Away from Uncut Area

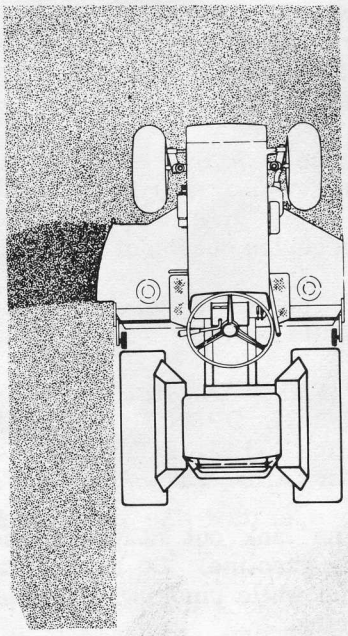
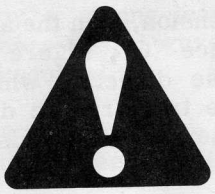


Figure 3. Discharging Grass Into Uncut Area

Dismount the tractor using the reverse of the above procedures.

7. The tractor mechanical or hydraulic lift lever is used to raise the mower into transport and to lower it to desired cutting height. The wing nut, Reference "A", Figure 4 is not used to adjust the cutting height and should be set according to Paragraph 2 under "Adjustments and Maintenance". Cutting height adjustments are covered in Paragraph 4 in the "Adjustment and Maintenance Section."



"YES, MR DEALER, I'VE STUDIED THE MANUAL"

8. When transporting the mower, pull the mechanical lift lever back until the catch engages. Depress the button at the top of the lift lever to release and lower the mower to the desired cutting height. A slight pulling pressure on the lever will permit the release button to be more easily depressed.

   If your tractor is equipped with hydraulic lift, hold the lever back until the upward movement of the mower stops; then release the lever.

CAUTION If the tractor is equipped with Hydraulic Lift, make certain the "down pressure" pin is in the outer (float) position as shown in Figure 4 to allow the deck to glide over high spots without digging in and causing possible damage to the mower or turf.

9. Be certain whoever operates the mower has read and understands the preceding "Operating Safety Suggestions."

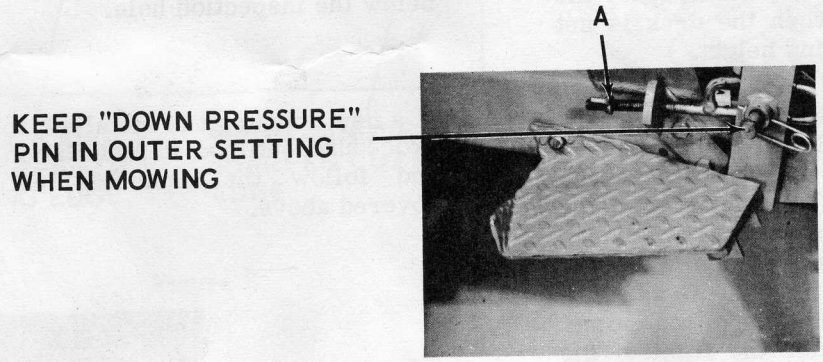


Figure 4.

ADJUSTMENTS AND MAINTENANCE

1. Before operating the mower, check the cap screws holding the blades. THEY MUST BE TIGHT. After the first 8 hours operation, check them again. Whenever the blades are removed, it is a good practice to install new lockwashers under the cap screws, and again check tightness after next 8 hours operation.

2. The wing nut, Reference "A", Figure 4, is used as a limit stop for the mower suspension. With the mower resting on the floor at normal operating height, push downward on the implement lift arms until all slack is taken out of the linkages. Adjust the wing nut to the point where about 1/2" of space exists between the

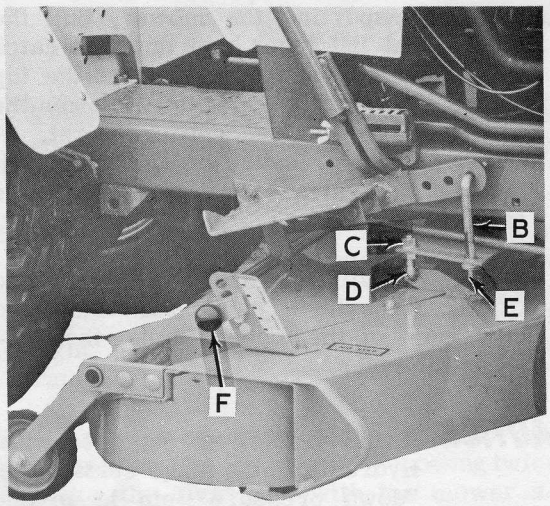


Figure 5. Cutting Height and Fore - Aft Level Adjustments

adjusting washer "E", Figure 5 and the lift frame with the mower in the lowered position. If the wing nut is set too far "out", the lift rods may jam against the mower deck when crossing obstructions. If the wing nut is set too far "in", the mower will not descend to mowing position. The 1/2" washer to lift frame clearance provides adequate float for the mower suspension when the deck is set at the desired operating height.

3. The mower must be level, fore and aft. To check for proper level, tire pressures must be correct and equal. Take measurements between a level surface and the blade tips with the mower set at desired cutting height and gauge wheels in contact with floor. Take measurements as close to the front and rear ends of the mower as possible. To raise the front of the deck, loosen the lower nut "D", Figure 5 on each adjusting link. Turn the upper adjusting nuts "C" downward until proper deck level is obtained. Then tighten the lower nuts to lock. To lower the front of the deck, back off adjusting nuts "C" and lock the lower nuts "D".

4. This mower is designed to provide an approximate cutting height range from 1-1/2 to 3-1/2 inches with 1/2-inch adjustments available in between. To change the cutting height, pull outward on the selection knob, Reference "F", move up or down to desired hole setting and push back in. The mower should be raised into transport before changing the cutting height to facilitate adjustment.

NOTE Always operate the mower with the gauge wheels on the ground to assure a level and uniform cut.

5. Check the mower drive belt tension after the initial 20 minutes operation. Check tension again after the next hour and five hours of mowing. The belt is properly tensioned when the left hand idler pulley mounting bolt lines up with the inspection hole, Reference "H", Figure 6.

To increase the belt tension, turn the adjusting crank, Reference "G", Figure 6, in a counterclockwise direction while facing the front of the tractor. To decrease tension, turn the crank clockwise.

If the belt is overtensioned, the idler pulley mounting bolt will be located above the inspection hole. An undertensioned belt will result in this bolt being located below the inspection hole.

If a new drive belt is installed, follow the procedure outlined in Installation Section and follow the tensioning instructions covered above.

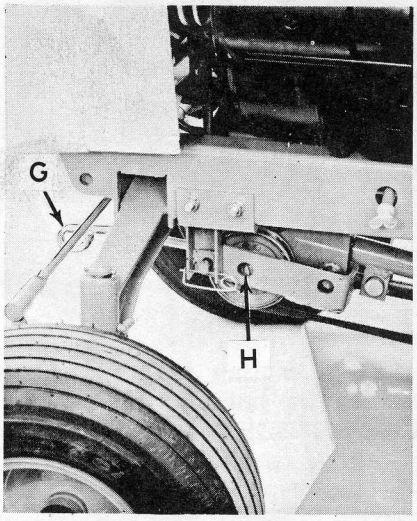


Figure 6. Drive Belt Adjustment

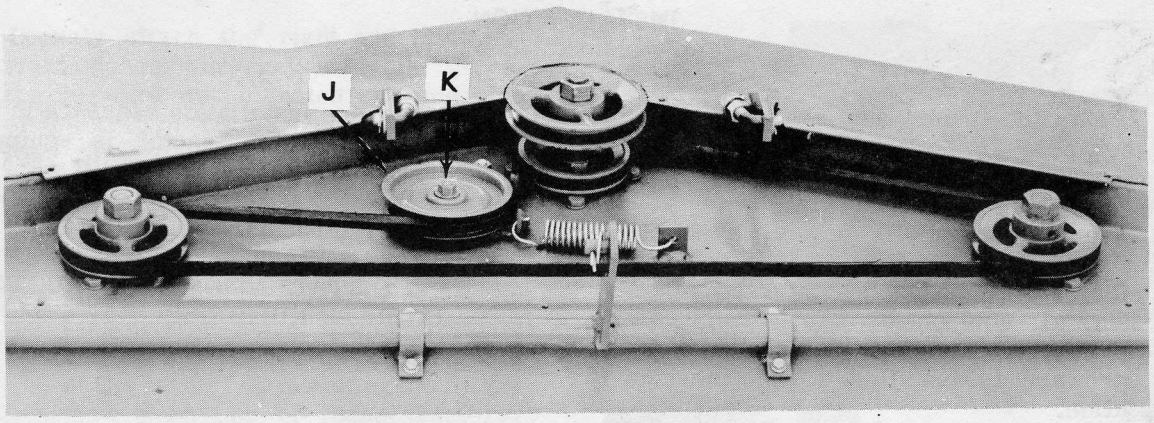


Figure 7. Deck Belt Installation

6. The deck belt is automatically tensioned by a spring loaded idler pulley, Reference "J", Figure 7 and adjustment is not required.

   If a new belt is installed, place it around the three spindle pulleys as illustrated.

   Place a 9/16-inch box wrench over the hex nut, Reference "K", Figure 7, on the idler pulley and pivot the idler pulley towards the front of the mower until the belt can be easily placed over the back side as shown. Check to make sure the belt is not twisted before replacing covers.

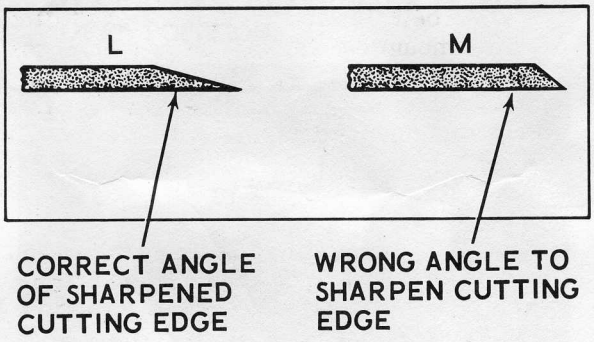


Figure 8

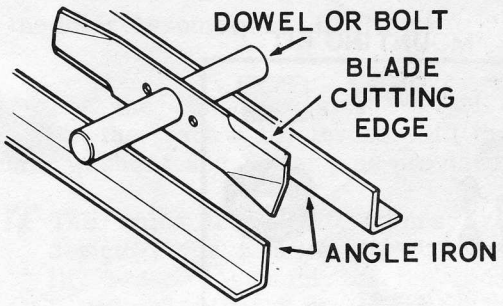


Figure 9

7. Check the mower blades periodically for nicks or dullness. Damaged or dull blades can cause a shattered rather than clean cut and brown areas may develop. Reference "L", Figure 8, illustrates the correct angle at which to resharpen the blade cutting edges. If the cutting edge is sharpened at a blunt angle, Reference "M", the grass may also be shattered rather than cleanly cut.

   After a blade is sharpened, check it for balance by inserting a dowel or bolt in the center hole and place between two level edges as shown in Figure 9. A balanced blade will center itself so the cutting edges are parallel with the edges.

CAUTION Unbalanced blades are a hazard and will cause premature wear and failure of bearings and spindles. If the blades cannot be balanced by resharpening them, replace with new blades.

8. Check and clean out the inside of the deck housing periodically. Remove any grass wrappings between the blade mounting plates and the spindle housings. Grass wrappings, if allowed to accumulate, may work their way under the bearings and damage the seals. Excessive grass accumulation in the deck housing will waste engine horsepower and cause plugging and streaking as well as corrosion.

INSTALLATION

A. Locate the tractor on a smooth and level surface. Check tires for equal and recommended pressures.

B. Before mounting the mower, lay out the individual parts as illustrated in Figure 10. To simplify the original installation, all components are preassembled as far as practical and the attaching hardware is installed in its proper location.

C. The following installation sequence is the same whether the tractor is equipped with hydraulic or mechanical lift.

D. THE NUMERICAL REFERENCES ON THE ILLUSTRATION CORRESPOND TO THE INSTALLATION INSTRUCTION PARAGRAPH NUMBERS.

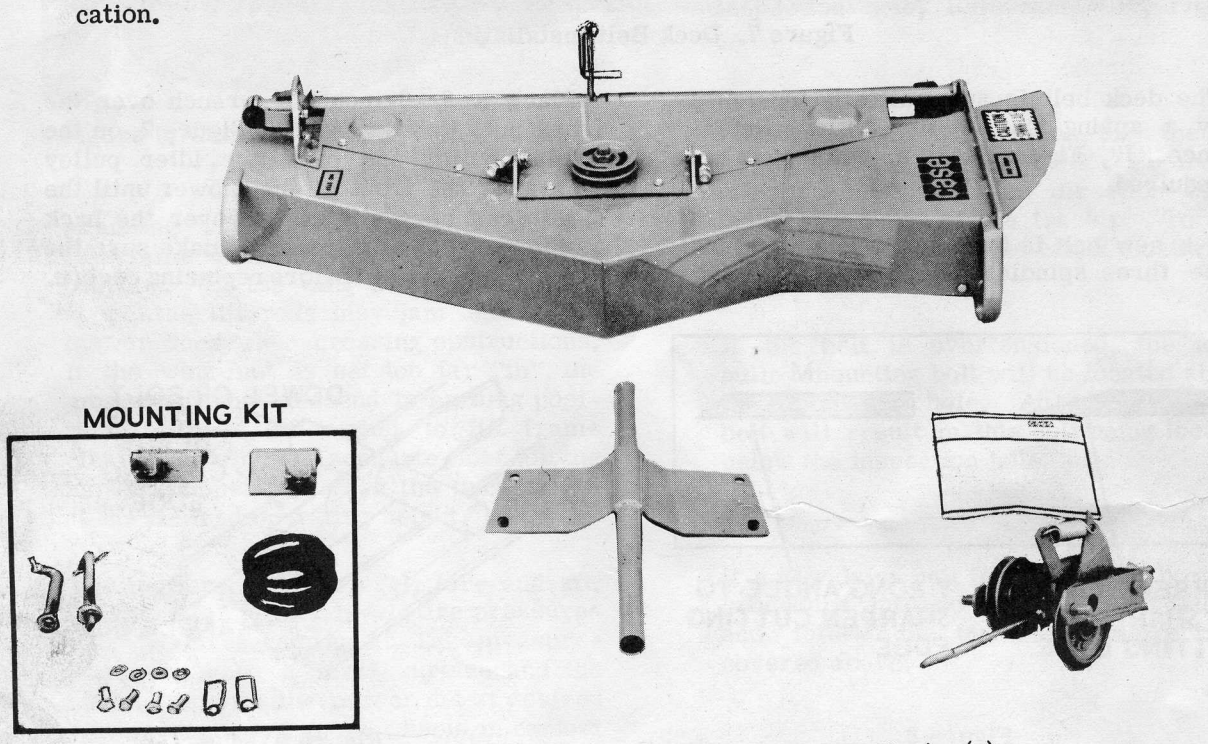


Figure 10. Mower Removed From Shipping Carton(s)

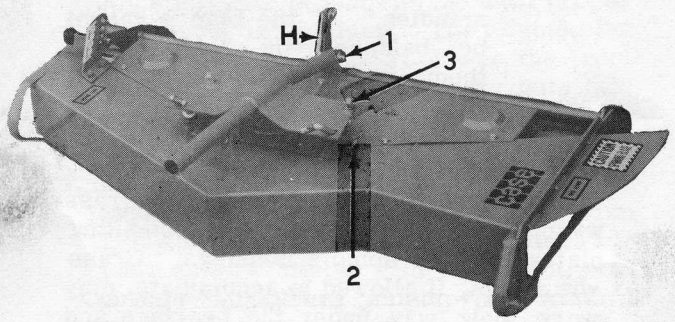


Figure 11. Assembling Lift Frame to the Mower Deck

1. With the pivot link, Reference "H", located in front of the gauge wheel carrier lug, attach the lift frame using the preassembled plain washer and cotter pin.

2. Remove all but one plain washer from each of the lift rods and place the rods through the slotted (forward) holes on the lift frame.

3. Remove the top nut and lockwasher from the fore-aft leveling links and check the lower nuts for approximately equal location. Place the leveling links through the lift frame and install the nuts and lockwashers "finger" tight. Do not tighten the nuts until the deck is leveled fore and aft at completion of installation.

4. Loosely attach the right and left hand front hanger brackets, Figure 11, to the forward set of holes on each side of the tractor frame channels using the four preassembled hex head bolts and lockwashers. The brackets must be attached with the pedestals toward the front also as shown in Figure 14.

NOTE Model 220, 222, 442 and 444 tractors prior to serial number 9641000 do not have "weld nuts" on the inside of the frame. If mounting the rotary mower on one of these tractors, use four square neck bolts, part number 111-362 and nuts in place of the hex head bolts provided.

5. Pull the Attachment Drive lever out to the "ON" position. Carefully insert the drive belt up through the front end of the tractor frame channels between the fan and heat exchanger and place over the clutch pulley. PUSH THE ATTACHMENT DRIVE LEVER BACK INTO THE "OFF" POSITION.

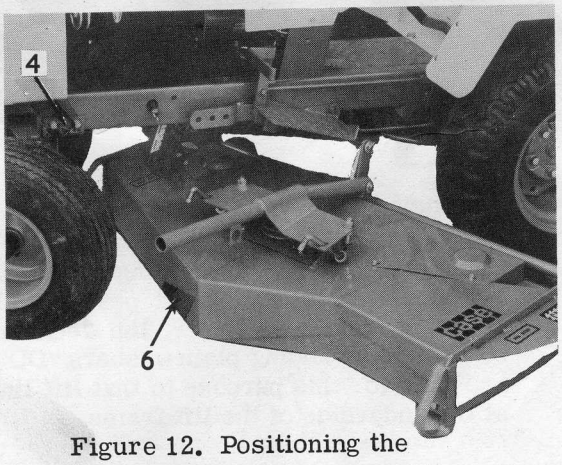


Figure 12. Positioning the Mower Under Left Side of Tractor

6. Cramp the front wheels to the right and slide the mower under the tractor from the left side as illustrated in Figure 12.

7. Position the drive belt under the mower lift tube and to each side at the forward end. Apply a light coat of grease to the forward few inches of the lift frame tube. Remove the anchor pin from the threaded end of the adjusting crank and start the idler assembly on the lift frame tube as shown in Figure 13. Slip the anchor pin through the tabs on the lift frame and turn in the adjusting crank as illustrated.

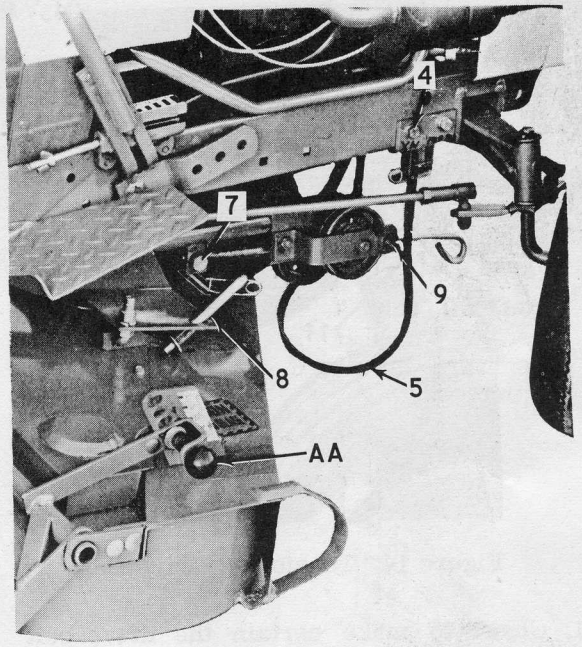


Figure 13. Connecting the Idler Assembly to Lift Frame

8. Connect the lift rods to the FRONT hole in the tractor lift levers with the plain washers and cotter pins provided.

NOTE The holes in the lift levers are designed for a snug fit with the lift rods. Assembly of the rods will be facilitated if the deck is manually raised to locate the rod in line with the connecting hole.

9. Remove the safety pin from each front mounting bracket. Be certain that the belt is in front of both idler pulleys as shown in Figure 13. Raise the idler assembly and insert the pins into the mounting bracket notches. Replace the safety pins and tighten the bolts on each front mounting bracket.

NOTE The idler assembly will raise easier into the notches if the mower is first raised into the transport position.

10. Turn the adjusting crank clockwise until the drive belt can be placed over the deck pulley without stretching. The belt must be properly positioned in the PTO pulley and idler pulleys before placing it over the deck pulley.

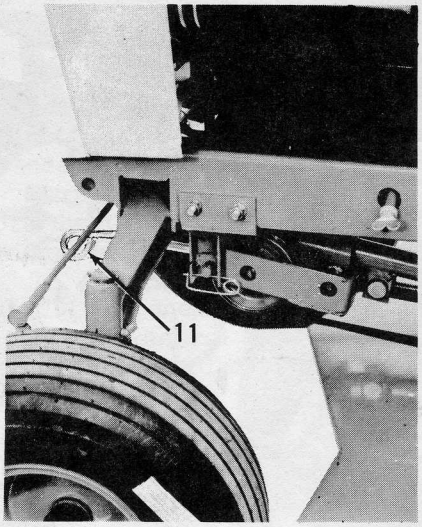


Figure 14. Tensioning Drive Belt

11. Check to make certain the drive belt is not twisted and is properly positioned in all pulleys. Then turn the adjusting crank counterclockwise until the left hand idler pulley mounting bolt lines up with the inspection hole in the idler bracket. See Figure 14, also page 6.

12. For cleanest cutting, the mower must be level fore and aft. To check for proper level, tire pressures must be correct and equal as prescribed in the tractor Operator's Manual. Take measurements between a level surface and tips of mower blades. Measure as close to the front and rear sides of the deck as possible. Set mower for 2" cutting height with the adjusting lever, Reference "AA", Figure 13.

To raise the front of the deck, loosen the lower nut "BB", Figure 15, on each adjusting link. Turn the upper adjusting nuts "CC" downward until proper level is obtained. Then tighten the lower nuts to lock. To lower the front of the deck, back off adjusting nuts "CC" and lock the lower nuts "BB".

NOTE Set the lift lever wing nut in accordance with Paragraph 2 in the "Adjustments and Maintenance" section.

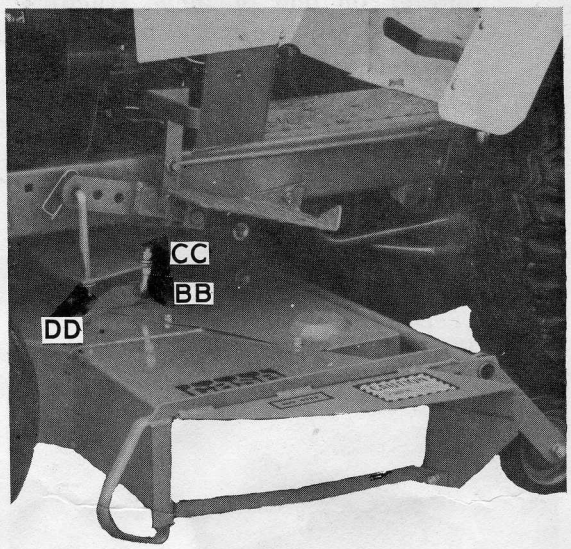


Figure 15. Leveling the Mower

13. Check mower for approximate side to side level in the transport position. If one side should be lower, the deck can be leveled by adding plain washers "DD", provided for this purpose to that lift link at the underside of the lift frame.

NOTE

The J I Case Company reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.

Supplement to Paragraph four of Page nine Form No. 9-35281

To obtain front and rear wheel clearance on the 442 and 444 tractor, use the first (1) and third (3) holes from the front side of the hanger brackets when installing a G46 mower. When mounting a G44 mower, use the second (2) and fourth (4) holes from the front of the brackets as illustrated in Figure 1.

Loosely attach the right "A" and the left "B" hanger brackets to the forward set of holes on each side of the tractor frame channels using the four preassembled hex head bolts and lockwashers. When properly installed, the straight side of each hanger bracket pedestal is toward the front of the tractor.

When installing the G40 or G44 to the low clearance tractor, the brackets must be installed with the pedestals toward the front as illustrated in Figure 2.

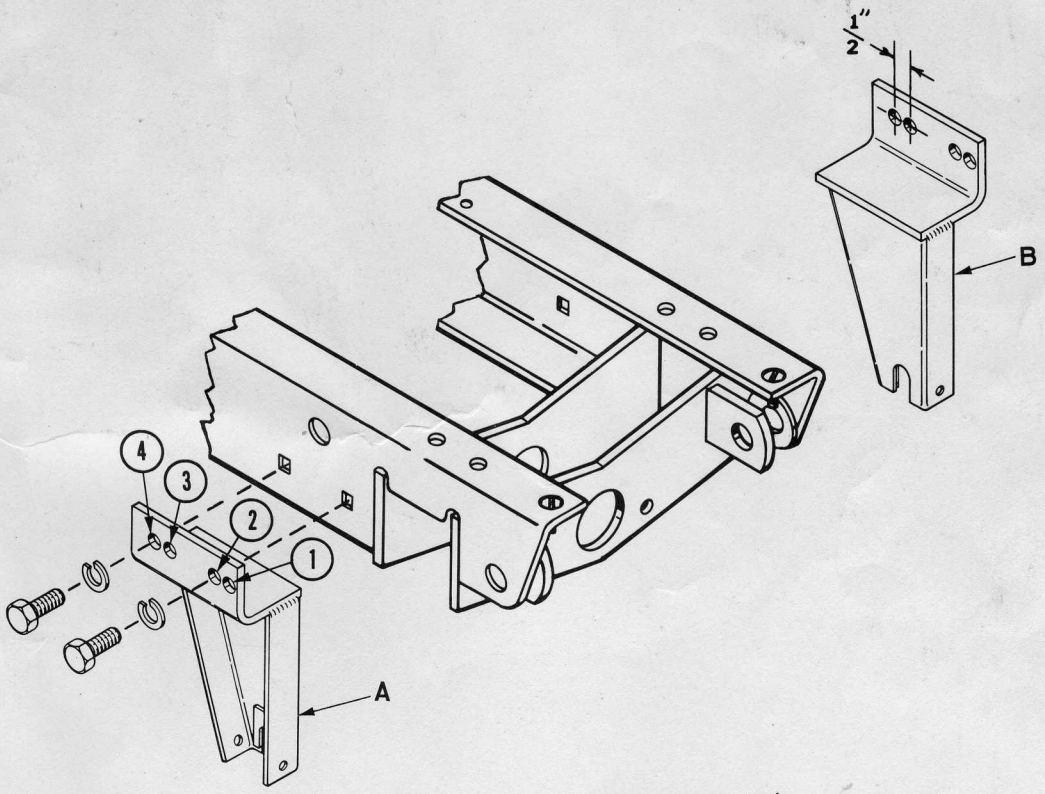


Figure 1. 442 and 444 Mounting Brackets

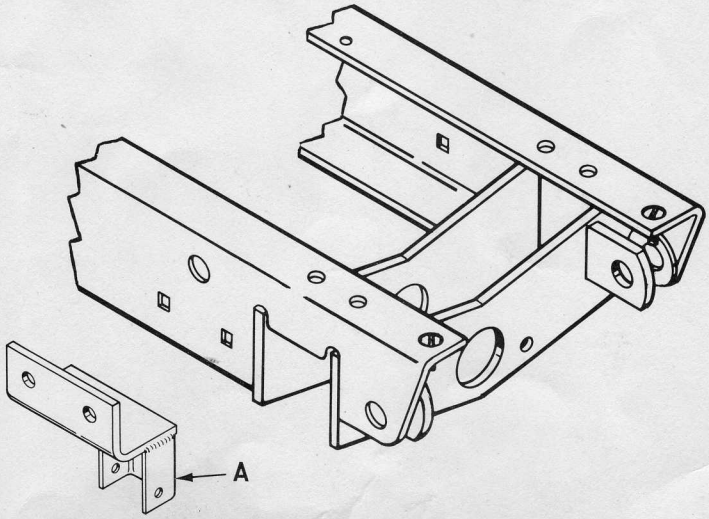


Figure 2. 220 and 222 Mounting Brackets

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