



# Ingersoll

ROTARY MOWER  
M48, L48, K48  
Operators Manual 9-51701

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Ingersoll . . . *the new name to say for Case garden tractors.*

Ingersoll Equipment Co., Inc.      Winneconne, Wisconsin 54986-9576

## SAFETY MESSAGES



The safety messages contained in this manual are to be used together with the safety messages appearing in the tractor operator's manual. Be sure to review both carefully before operating the tractor-mower combination.



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



Maintain your tractor and rotary mower in top operating condition.



**CAUTION:** 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.



**CAUTION:** Do not permit children or pets in the area while mowing and never direct the mower discharge at buildings, people, pets, windows or cars.



**WARNING:** Keep feet and hands away from discharge opening and make no repairs unless both the tractor engine and attachment drive are shut off and the key is removed from the tractor.



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



**CAUTION:** Never allow children or young teenagers to operate the tractor and rotary mower.



**WARNING:** Be sure that the attachment drive clutch is off, the engine is shut off, the key removed and the blades have stopped spinning before attempting to clean a plugged discharge chute.



**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, replace them with new ones.



**CAUTION:** Never get on or off the tractor while the mower is running.



**CAUTION:** Give complete and undivided attention to the job at hand.



**CAUTION:** Stop engine, disengage attachment drive, set parking brake and remove the key when tractor is unattended.



**CAUTION:** Do not allow anyone other than the operator to ride on the tractor.



**CAUTION:** Stop and inspect the mower for damage immediately after striking a foreign object and repair damage before restarting and operating the machine.



**DANGER:** Spinning Blade. Keep clear. Contact can injure.



**CAUTION:** Be sure you know how to stop the tractor and mower at a moment's notice.



**CAUTION:** Disengage attachment drive lever, stop engine and remove key and spark plug wire(s) before making adjustments.



**WARNING:** Improper operation of your tractor on hillsides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.



**CAUTION:** Shut off engine, allow engine to cool and remove key and spark plug wire(s) before replacing mower drive belt.



**CAUTION:** Disengage attachment drive clutch when someone approaches or whenever the mower is being transported.



**CAUTION:** Sharp mower blades. Wear gloves or wrap the mower blade with a rag when handling blades. Improper handling can cause cuts to the skin.

**IMPORTANT:** Always install new decals whenever the old decals are destroyed, lost, painted over or illegible. When individual parts are replaced that have decals attached, be sure to install a new decal with the new part. Replacement decals are available from your dealer.

## HILLSIDE (SLOPE) OPERATION



**WARNING:** Improper operation of your tractor on hillsides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.

Avoid operating tractor on hillsides and slopes. To minimize the possibility of accidents while operating on hills and/or rough terrain, obey a combination of rules, practices and good common sense.

These include:

1. Reading, understanding, and obeying all written safety messages appearing on decals on the machine and in operator's manuals.
2. Learning from your operator's manual and carefully from EXPERIENCE how to operate your tractor correctly. Know your tractor's limitations.
3. Knowing the terrain on which you are operating your tractor. There are terrain conditions on which your tractor cannot be operated!
4. Learning to expect changes in operating conditions. Adding or removing attachments or weight to your tractor will make your tractor perform differently. Rain, snow, loose gravel, wet grass, etc., change the tractive conditions of the terrain requiring changes in your operating technique or not to operate on that terrain.

The following paragraphs will cover these practices one at a time. Read and study them. The examples provided are not all inclusive but will give you a firm understanding of the requirements for avoiding accidents while operating your tractor.

**THE OPERATOR IS THE SOLE JUDGE AS TO THE DEGREE OF SLOPE ON WHICH THIS TRACTOR CAN BE SAFELY OPERATED. IF IN DOUBT THAT THIS TRACTOR CAN BE SAFELY OPERATED ON A PARTICULAR SLOPE, DO NOT OPERATE ON THAT SLOPE! COMMON SENSE MUST PREVAIL.**

### Read, Understand, Obey:

Safety messages are found on the tractor and in the operator's manuals. These must be understood by the tractor operator to be of value. Be sure that these messages are studied before starting and/or operating the tractor by an operator not familiar with this particular tractor.

### Learn to Operate:

Learn your tractors controls from decals on the tractor and from instructions in the operator's manual. Practice how to properly manipulate these controls. Practice must be done in a flat area, clear of obstacles and bystanders. Learn your tractors operating characteristics and limitations. These include: ~

- a. amount of engine power available
- b. engine governor response
- c. tractive ability
- d. steering characteristics
- e. braking characteristics
- f. movement of travel lever
- g. forward and reverse ground speeds
- h. speed of attachment lift
- i. and others

Attempting any operation which approaches or exceeds the tractor's limitation is risking an accident.

### Know the Terrain:

Know the terrain on which you are working. Find hidden obstacles by walking through and inspecting the area prior to operating your tractor on it. Mark obstacles, such as, rocks, ruts or holes with a 6 ft. long pole and red flag and stay well clear of these obstacles when operating.

Operate your tractor at a ground speed slow enough to insure complete control at all times.

Place the transmission in low range and regulate the travel control lever slowly and smoothly to maintain this safe speed.

Always drive in a forward direction when proceeding downhill. Never drive up a hill. If necessary, back up a hill to the desired position. Always back up loading ramps and tilt bed trailers. If necessary to turn while on a hill, always turn downward.

Your judgement, based on operating experience is the final word in deciding if you should negotiate any given hill or slope. If you are in doubt about safety - **STAY OFF THE SLOPE.**

Under no circumstances should an inexperienced operator attempt to use your tractor on slopes or hillsides.

You may encounter some terrain on which your tractor cannot be operated even if a different piece of equipment has operated there in the past.

**Learn to Compensate for Changes in Operating Conditions:**

Adding or removing attachments or ballast (such as wheel weights or fluid) change the weight and weight distribution of your tractor and, therefore, change your tractors operating characteristics.

Be alert to these changes. Practice operating the tractor after each change has been made.

Adding an attachment (weight) to the rear of the tractor reduces the weight on the front axle. Adding an attachment (weight) to the front of the tractor reduces weight on the rear of the tractor. You must add counterweight to the front if a rear mounted attachment is installed. You must add counterweight to the rear if a front mounted attachment is installed.

Tractive conditions will vary with weather and terrain and equipment.

Areas wet with dew, rain or snow will be more slippery than when dry. Areas covered with loose gravel are more slippery than firm dry ground. Greater stopping distances are required in these slippery areas.

Spinning rear wheels tend to move the tractor sideways. The addition of tire chains will provide more traction to the rear wheels in the forward-reverse direction but less stability in the sideways direction. Chains will cause more abrupt starting and stopping.

The final word in safe tractor operation rests on your judgement.

If in doubt of your safety - **STAY OFF THE SLOPE.**

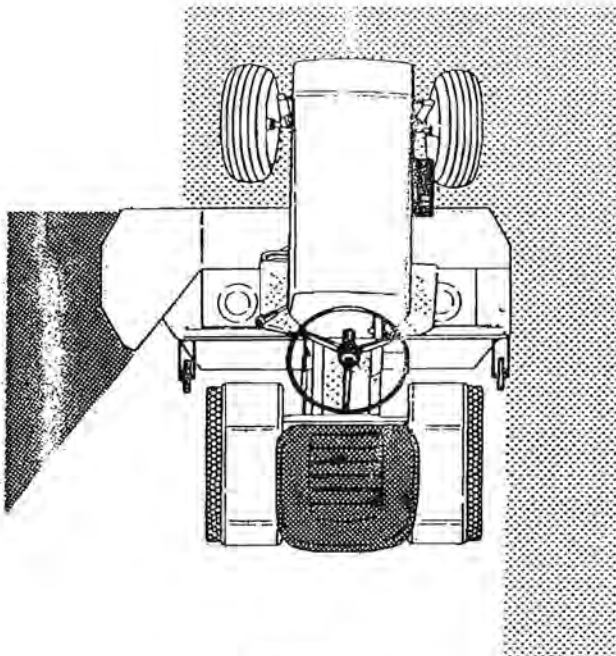


FIGURE 1  
Chute Facing the Cut Area.

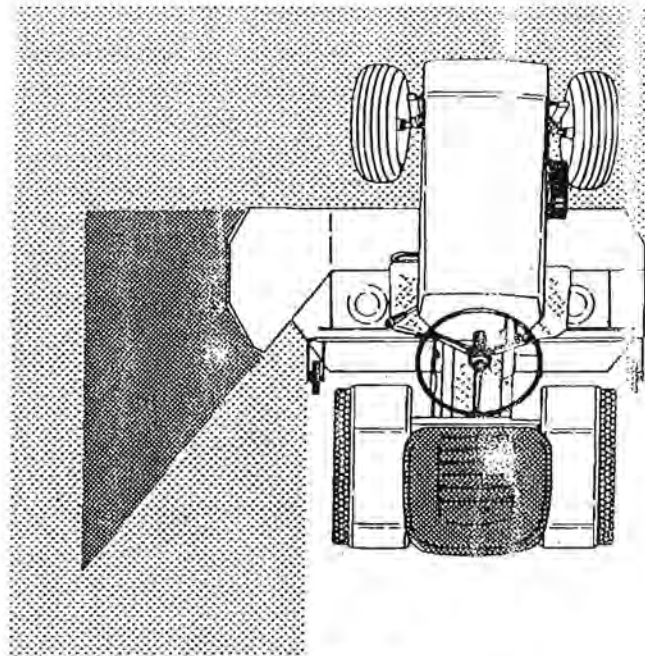


FIGURE 2  
Chute Facing the Uncut Area.

## MOWING CONDITIONS

Mowing conditions can be different. You must use the correct operating methods according to the following chart:

CONDITION	METHOD
1. Short or thin grass.	<ol style="list-style-type: none"><li>move the height selector lever to the cutting height needed.</li><li>move the throttle lever to a position between <math>\frac{3}{4}</math> and full throttle.</li><li>adjust ground speed as needed.</li><li>you may decrease engine speed or put the range selector in the "HIGH" position if this doesn't cause an overload to the engine. The engine will become too hot and the rotary mower will not work correctly if the engine is operated with an overload.</li></ol>
2. Long or thick grass.	<ol style="list-style-type: none"><li>move the height selector lever to the highest position.</li><li>increase engine speed to the "FULL THROTTLE" position.</li><li>reduce ground speed.</li><li>cut long or thick grass twice.</li><li>operate with the chute facing the cut area.</li></ol>
3. Wet grass.	<ol style="list-style-type: none"><li>do not cut wet grass.</li></ol>
4. Rough terrain.	<ol style="list-style-type: none"><li>raise the mower into the transport position.</li><li>put the gauge wheels in the middle position.</li><li>operate the mower in the transport position to keep the gauge wheels off the ground.</li><li>reduce ground speed.</li></ol>
5. Cutting near objects.	<ol style="list-style-type: none"><li>use the right side of the rotary mower.  The cut material will be moved away from the object.</li></ol>
6. When grass will not be swept.	<ol style="list-style-type: none"><li>operate with chute facing the cut area.</li></ol>
7. When grass will be swept.	<ol style="list-style-type: none"><li>operate with chute facing the uncut area.  b. the grass will be in one strip and can be removed with a sweeper.</li></ol>
8. Wind.	<ol style="list-style-type: none"><li>turn the tractor so the wind will move grass away from you.</li></ol>



## INTRODUCTION

This operation's manual is for the Model K-48, L48, M48 commercial rotary mower. This operator's manual includes:

- a. Safety Rules
- b. Installation Procedure
- c. Operating Procedure
- d. Adjustments
- e. Maintenance

Read this manual before operating your rotary mower.

See your dealer for parts or repairs.

The words "Right, Left, Front and Rear" as used in this manual indicate directions when you are in the operator's seat in the normal operating position.



**WARNING:** Improper operation of your tractor on hill-sides and slopes can be dangerous. Avoid improper operation! Read and follow the instructions given in the section titled "Hillside Operation" in this manual before operating your tractor.

ATTACHMENT APPLICATION CHART		
MODEL	SIZE	TRACTOR MODEL
K-48	60" (1520mm)	446 P.I.N. 9770165 and after 448 all
L-48		
M-48		

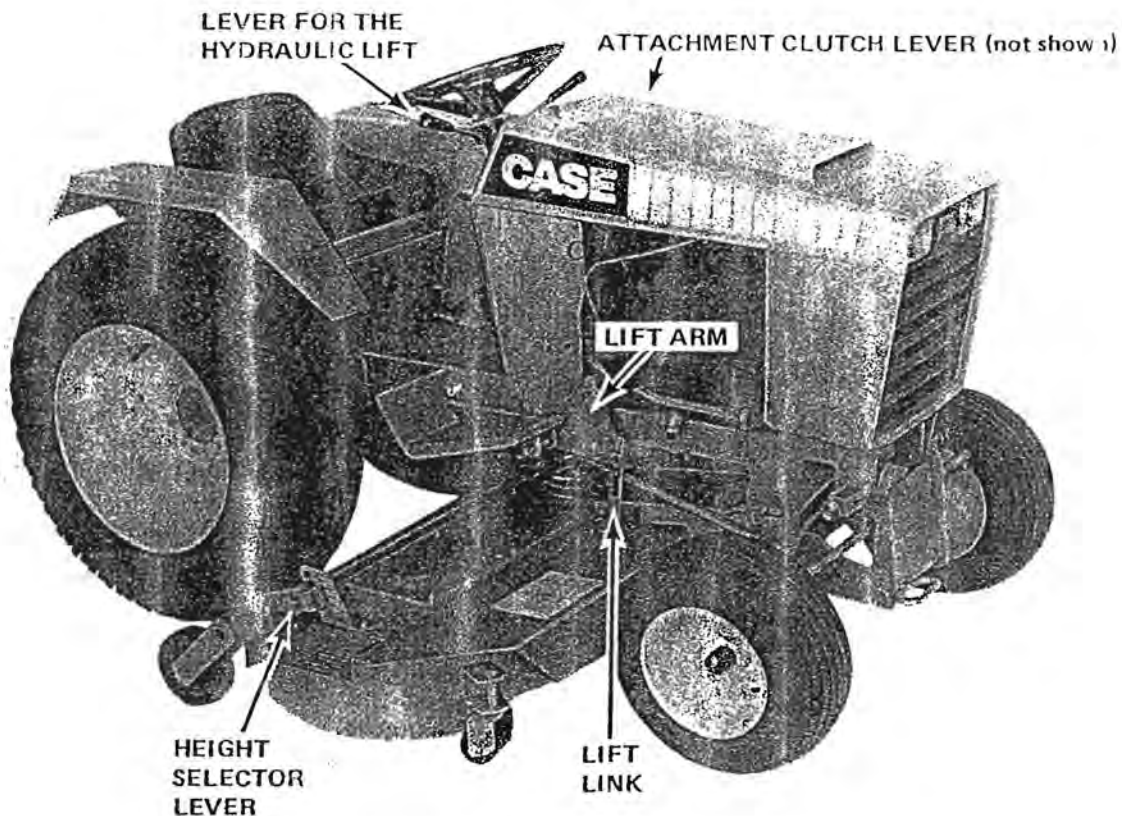


FIGURE 3 Commercial Rotary Mower with Model 448 Tractor

## OPERATING CONTROLS

### ATTACHMENT CLUTCH LEVER

The rotary mower is started and stopped with the attachment clutch lever.

See your tractor operator's manual for correct use of your tractor controls.

### ATTACHMENT LIFT LEVER

The rotary mower is raised and lowered with the attachment lift lever.

When mowing, put the attachment lift lever in the "LOWER" position until the lift arms are midway in the lift link slots.

See your tractor operator's manual for correct use of your tractor controls.

### HEIGHT SELECTOR LEVER

The cutting height is controlled by the height selector lever.

#### TO INCREASE THE CUTTING HEIGHT:

1. Raise the mower into the "TRANSPORT" position.
2. Disengage the pin and pull the height selector lever up.

#### TO DECREASE THE CUTTING HEIGHT:

1. Raise the mower into the "TRANSPORT" position.
2. Disengage the pin and push the height selector lever down.

## OPERATION

1. See the "ADJUSTMENTS" and "MAINTENANCE" sections of this manual before operating your rotary mower.
2. See your tractor operator's manual for correct use of your tractor controls.

Learn to operate the tractor and rotary mower in an area clear of persons and obstructions.

4. Check the work area for obstructions. Remove the small obstructions. Mark the large obstructions so you can see them. Do not hit the large obstructions.



**CAUTION:** Never allow children or young teenagers to operate the tractor and rotary mower.

5. Get on and get off the tractor correctly. Never use the lawn mower frame for a step.

#### TO GET ON THE TRACTOR FROM THE RIGHT SIDE:

- a. put your right foot on the right foot rest
- b. put your right hand on the steering wheel
- c. put your left hand on the seat back
- d. swing your left leg between the steering wheel and seat.



**CAUTION:** Never get on or off the tractor while the mower is running.

#### TO GET ON THE TRACTOR FROM THE LEFT SIDE:

- a. put your left foot on the left foot rest
- b. put your left hand on the steering wheel
- c. put your right hand on the seat back
- d. swing your right leg between the steering wheel and seat

Use the reverse procedure to get off the tractor.

6. Start the rotary mower by smoothly engaging the attachment clutch lever.
7. Lower the lawnmower to the cutting position. Make sure the lift arms are located in the center of the slots in the lift links. This permits free movement of the lawnmower.

On tractors with hydraulic lift, do not put the attachment lift lever in the "FLOAT" position.



**DANGER:** Spinning Blade. Keep clear. Contact can injure.



**WARNING:** Be sure that the attachment drive clutch is off, the engine is shut off, the key removed and the blades have stopped spinning before attempting to clean a plugged discharge chute.



## ADJUSTMENTS

### HEIGHT SELECTOR LEVER. (See Figure 4.)

You can adjust the lawnmower to five different heights.



**CAUTION:** Disengage attachment drive lever, stop engine and remove key and spark plug wire(s) before making adjustments.

#### TO CHANGE THE CUTTING HEIGHT:

1. Raise the lawnmower into the transport position. This will decrease the weight on the height selector lever.
2. Pull outward on the pin.
3. Move the lever up or down to the needed height.
4. Push the pin into the hole selected.

### DRIVE BELT TENSION. (See Figure 5.)

The belt tension is correct when the gap between the spring coils is equivalent to one wire diameter.

**TO INCREASE BELT TENSION:** Turn the adjusting handle counterclockwise.

**TO DECREASE BELT TENSION:** Turn the adjusting handle clockwise.

**IMPORTANT:** Check tension daily and adjust as necessary.

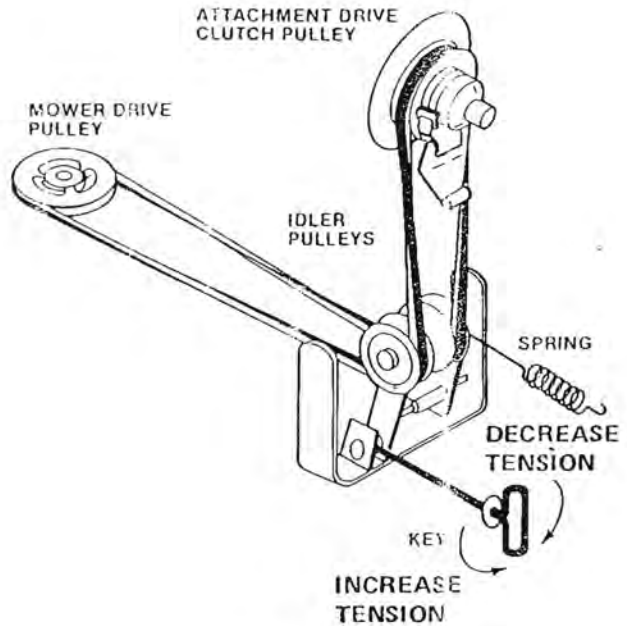


FIGURE 5



FIGURE 4

## DECK BELT SERVICE. (See Figure 6, 7 and 8.)

Use the following steps to adjust the belt tension, to replace the belt and to align the blades.

1. Remove the covers for the belts.

**NOTE:** Hold the head of the bolt for all adjustments.

2. Check if nut "A" is against the washer and spacer. Turn nut "A" against the washer and spacer if required. The spacer is inside the spring.
3. Loosen (do not remove) the four nuts holding the spindle housing to the underside of the mower so the assembly can move.
4. Blade alignment and belt replacement: - - If not required, proceed to Step 5.
  - a. Turn nut "B" toward the spring until the belt can slide over the pulley.
  - b. Replace the belt if required. The primary drive belt must be removed from the center pulley before you remove the deck belt.
5. Check the gap between the head of the bolt and the spacer. The gap must be equal to the thickness of your tractor ignition key.
  - a. NO GAP OR GAP TOO SMALL: Loosen nut "C" and turn nut "B" against the tab until you get the correct gap. Tighten nut "C".
  - b. GAP TOO LARGE: Turn nut "B" toward the spring until you get the correct gap. Tighten nut "C".
6. Tighten the nuts for the spindle housings to 30 lb. ft. (41 Nm).
7. Install the covers for the belts.

### CORRECT BLADE ALIGNMENT

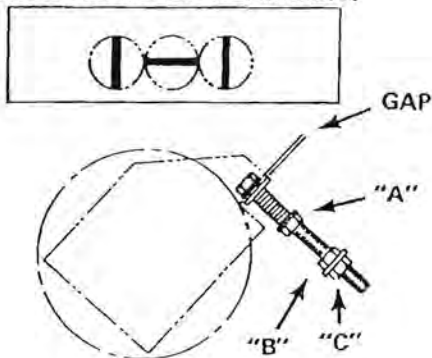


FIGURE 6

### NUTS FOR SPINDLE HOUSING FOUR EACH SPINDLE

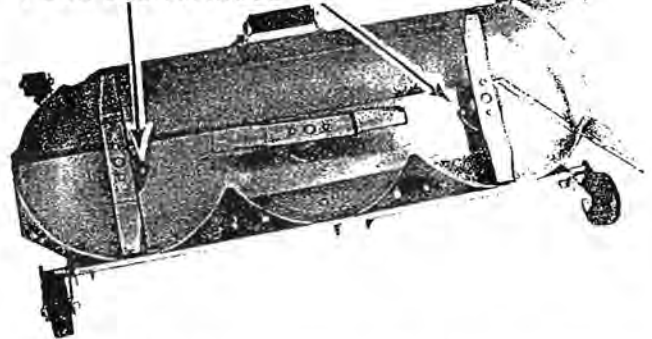


FIGURE 7 Underside of Mower Showing Correct Blade Alignment

### ADJUSTMENTS FOR BLADE BELT TENSION

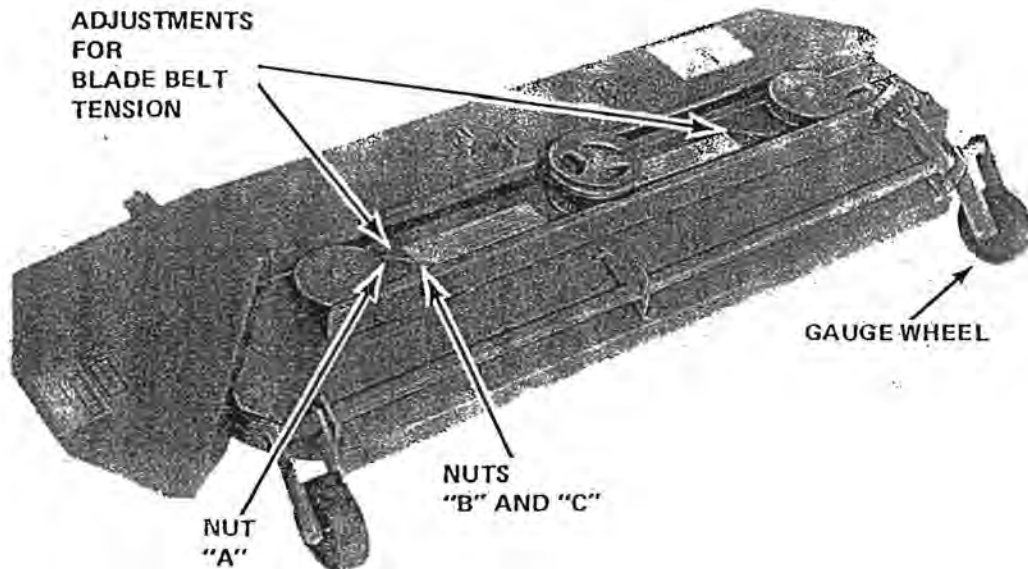


FIGURE 8 Mower Shown with Blade Belt Guards Removed

### LAWNMOWER FRONT TO REAR LEVEL. (See Figure 9.)

Smooth cutting and minimum horsepower consumption are a result of a level rotary mower.

#### BEFORE STARTING THE PROCEDURE:

1. Put the tractor and rotary mower on a level surface, like a concrete floor.
2. Put the height selector lever in the middle hole.

#### TO CHECK FOR LEVEL:

1. Lower the mower to the cutting position.
2. Rotate the blades until they are parallel to the tractor frame from front to rear.
3. Make sure the lock nuts on the leveler link are tight.
4. Measure the distance from the blade ends to the level surface. Make sure you measure as near the blade end as possible.

The lawn mower is level when both front and rear blade measurements are the same. The front end can be 1/8" (3 mm) lower than the rear end. Never permit the rear end to be lower than the front end. This will cause more than normal power consumption.

#### TO RAISE THE FRONT OF THE MOWER:

1. Loosen the lower lock nut.
2. Turn the upper lock nut several turns to make the leveler link shorter.
3. Retighten the lower lock nut.

#### TO LOWER THE FRONT OF THE MOWER:

1. Loosen the upper lock nut.
2. Turn the upper lock nut several turns to make the leveler link longer.
3. Tighten the lower lock nut.

### LAWN MOWER SIDE TO SIDE LEVEL

Make sure the problem is not unequal air pressure in the rear tires. The air pressure in both rear tires must be correct and equal. See your tractor operator's manual.

Lawn mower side to side level is not adjustable.

### GAUGE WHEELS

#### SMOOTH TERRAIN

1. Always operate the rotary mower with the gauge wheels on the ground. Make sure all weight is off the lift links for the rotary mower. The lift links must move freely to cut level and even.
2. The gauge wheels must not make contact with the ground while transporting the lawnmower.

#### ROUGH TERRAIN

1. Operate the rotary mower in the transport position and with the height selector lever in the middle position. This will keep the gauge wheels from making contact with the ground.
2. Reduce ground speed.

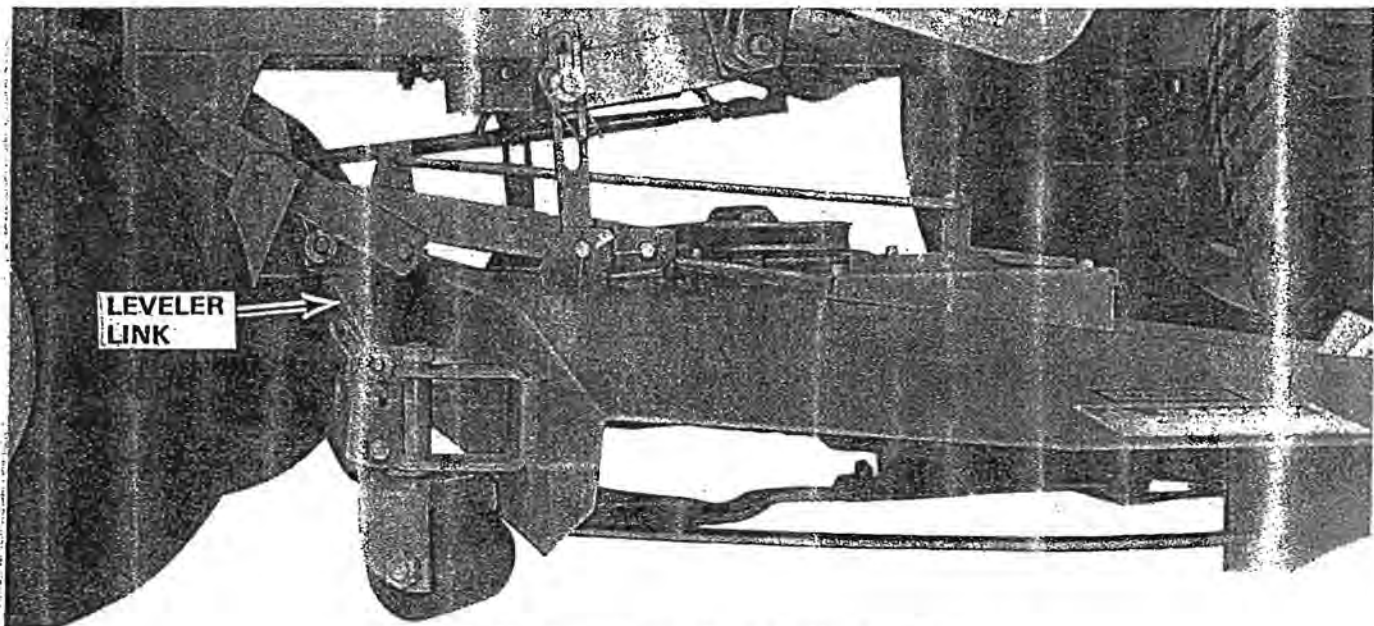


FIGURE 9 Lawnmower Front to Rear Level

## TROUBLESHOOTING CHART

### LAWN MOWER NOT CUTTING EVEN OR LEAVING A STRIP OF GRASS

POSSIBLE CAUSE	CORRECTION
1. Obstruction in bottom of mower deck.	1. Remove deck and clean.
2. Blades not sharp.	2. Cutting edge must be sharp and at least 2-1/2" (65 mm) long.
3. Engine speed too slow.	3. Adjust engine speed to 3600 RPM.
4. Travel speed too fast.	4. Decrease travel speed.
5. Grass too long.	5. Cut twice. First at highest position then at needed height.
6. Drive belt slippage.	6. Check belt. Adjust tension or replace.
7. Attachment drive clutch slippage.	7. Adjust or repair attachment drive clutch.

### TOO MUCH POWER CONSUMPTION AND CUTS BADLY

POSSIBLE CAUSE	CORRECTION
1. Blades not sharp.	1. Make blades sharp.
2. Lawn mower deck not level front to rear.	2. Deck must be level or no lower than 1/8" (3 mm) in front (first check air pressure in tires).
3. Blades installed upside down.	3. Install correctly. Blades rotate counterclockwise. Cutting edge must lead.
4. Blade not straight.	4. Replace blade.

### BLADES MAKING CONTACT WITH EACH OTHER

POSSIBLE CAUSE	CORRECTION
1. Deck belt broken or blades out of alignment.	1. Replace belt. Align blades correctly.
2. Blade key broken.	2. Replace key. Align blades correctly.



## MAINTENANCE



**CAUTION:** Disengage attachment drive lever, stop engine and remove key and spark plug wire(s) before making adjustments.

### BLADE BOLTS. (See Figure 10.)

Before you operate the lawn mower for the first time, check the bolts holding the blades. The bolts must be tightened to a torque of 30 lb. ft. (41 Nm). After the first eight hours of operation, check the bolts again.

Each time the blades are removed, install new lock nuts. Tighten the bolts to a torque of 30 lb. ft. (41 Nm) and check again after the first 8 hours of operation.

### BENT BLADES. (See Figure 10.)

Check for a bent blade before you install the lawn mower on the tractor. Check the blades for damage after you hit foreign material.

The ends of the blades must be aligned horizontally. A 1/8" (3 mm) difference is acceptable. Use a straight edge to check alignment.

Bent blades will leave strips of grass not cut.

### BLADE ALIGNMENT. (See Figure 10.)

Check for proper blade alignment before you install the lawn mower on the tractor.

Check for proper blade alignment after you hit foreign material.

**IMPORTANT:** Improperly aligned blades can contact each other and cause damage to the blades and other mower parts.

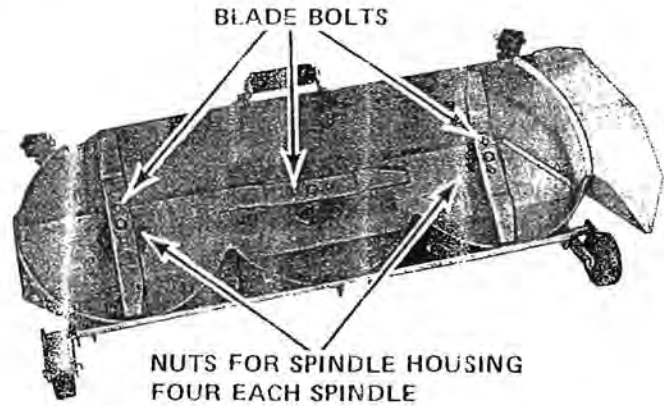


FIGURE 10 Underside of Mower Showing Correct Blade Alignment

### MOWER GAUGE WHEELS. (See Figure 11.)

Use method a. or b. below to lubricate the mower gauge wheels.

- Lubricate the gauge wheels every eight hours. Remove the gauge wheels to apply grease to the bushings.
- Apply oil every four hours to the bolts and bushings of the gauge wheels. You do not need to remove the gauge wheels to apply oil. Tilt the lawn mower deck. Let the oil flow into the bushings.

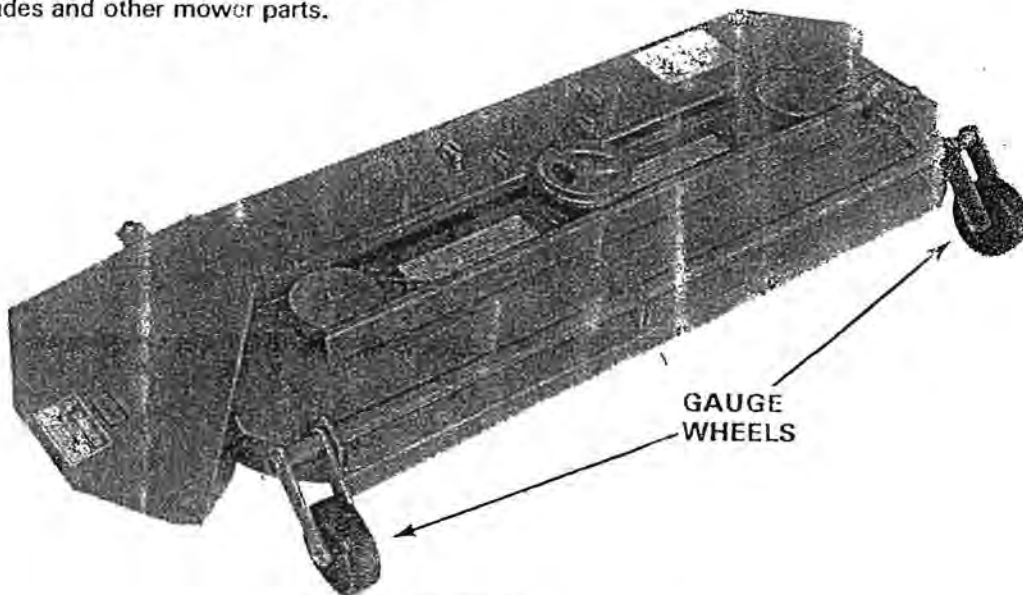


FIGURE 11



### SHARP BLADES. (See Figure 12.)

Stop the engine. Wait for all motion to stop. Be careful while you check the lawn mower blades. After each job check for damage or blade wear.

A blade that is worn can give a rough cut and brown areas of grass can result.

See Figure 12 for the correct angle of the cutting edge. The cutting edge must be at least 2-1/2" (65 mm) long.

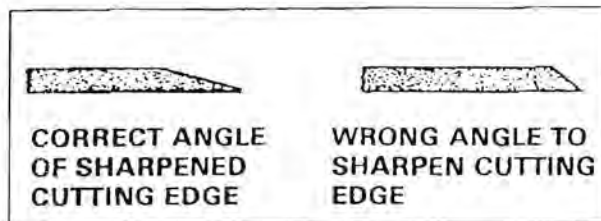


FIGURE 12

After grinding a blade, check for balance. Use a balance tool as shown. A balanced blade will stay in a horizontal position.



**CAUTION:** Sharp mower blades. Wear gloves or wrap the mower blade with a rag when handling blades. Improper handling can cause cuts to the skin.

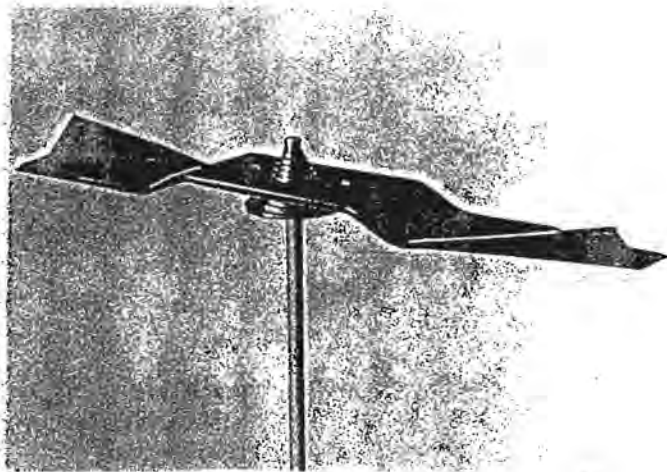


FIGURE 13

**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, replace them with new ones.



### CLEANING THE LAWN MOWER DECK

Large amount of grass in the lawn mower deck will:

1. cause more than normal horsepower consumption
2. cause an obstruction
3. cause a bad cutting job
4. cause corrosion
5. damage bearings or seals

Stop the engine. Wait for all motion to stop. Use caution when you check the lawn mower deck. Periodically check and clean the deck. Remove the grass wound between the blade mounting plates and spindle housings.



**DANGER:** Spinning Blade. Keep clear. Contact can injure.

### TRACTOR AND ENGINE MAINTENANCE

Complete instructions for tractor and engine maintenance are in your tractor operator's manual.

#### CHECK AND CLEAN DAILY:

1. Fins of the heat exchanger.
2. Air intake screen of the engine.
3. Air cleaner element.

**NOTE:** Keep the hydraulic oil cooler and engine air screen clean. This will lower the temperature of the engine and oil and prevent damage to the engine and the hydraulic system.

For commercial use: check and clean the hydraulic oil cooler and engine air screen at one hour intervals.

To clean the hydraulic oil cooler and engine air screen use one of the following methods:

1. brush
2. compressed air
3. wash with water.



Maintain your tractor and rotary mower in top operating condition.

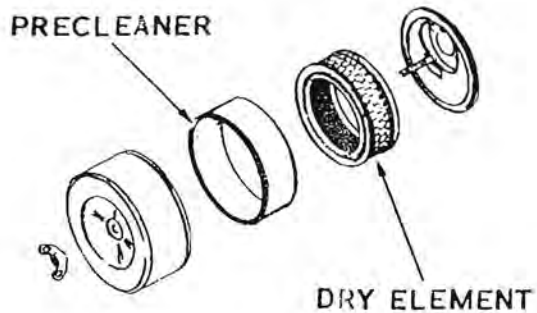


FIGURE 14

During dusty conditions use a pre-cleaner. The pre-cleaner fits over the air cleaner element and gives the element a longer life.

The pre-cleaner can be washed with detergent and water.

### TIRE AIR PRESSURE

Keep the tires at the correct air pressures. See your tractor operator's manual.

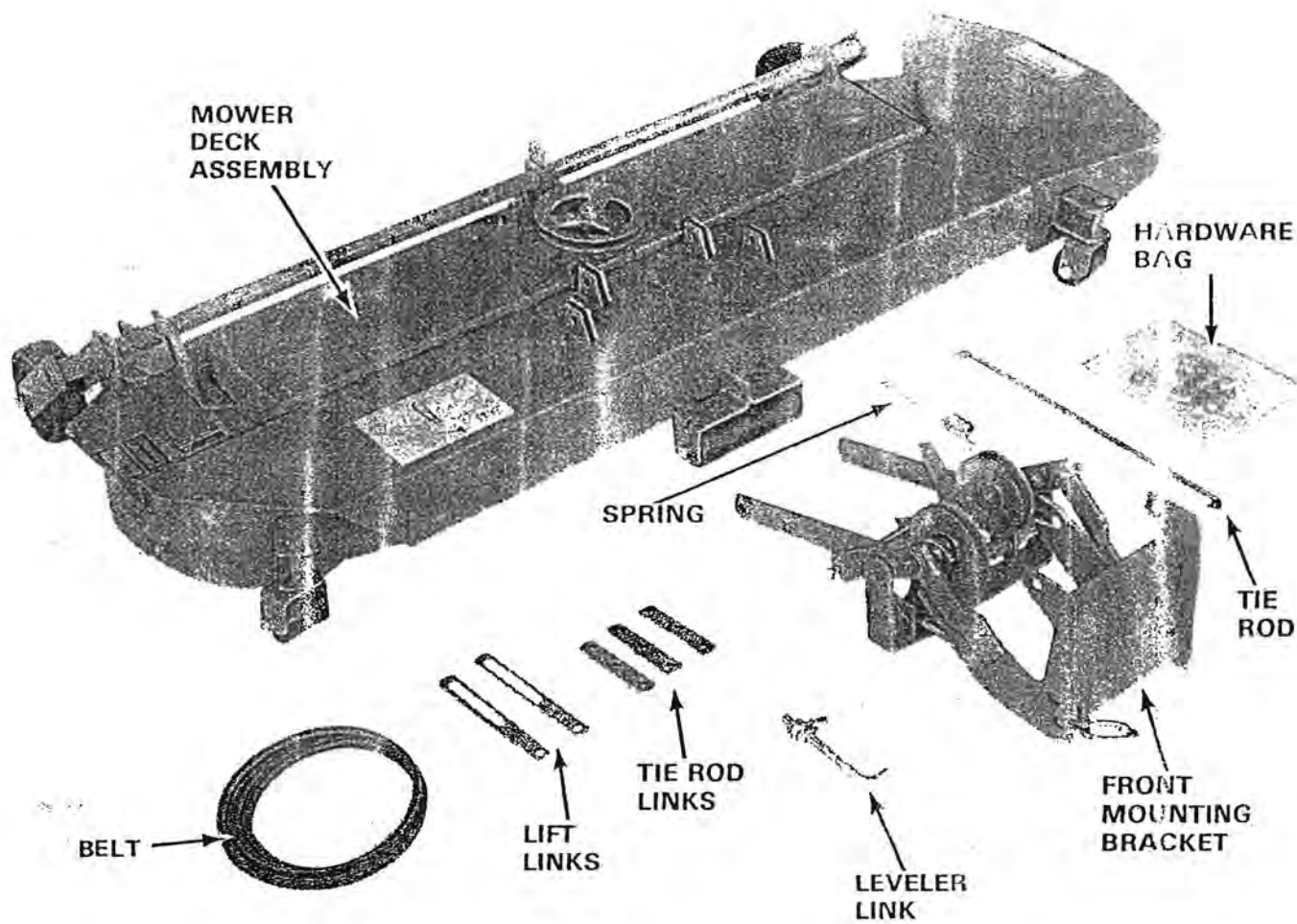


FIGURE 15 Mower - Disassembled

## INSTALLATION

### ASSEMBLY

1. Remove the components from the box. Check for damage or missing parts.
2. Do not assemble the mounting bracket to the lawn mower deck as shown in Figure 16. It is easier to first position the deck under the tractor, then install the mounting bracket.
3. Assemble the 3 tie rod links to the tab on the gauge wheel axle as shown in Figure 16.
4. Install the tie rod through the rear link from the left. Secure with a washer and cotter pin.
5. Install the lift links to the two outer brackets. Insert the clevis pins from the inside out and secure with cotter pins.

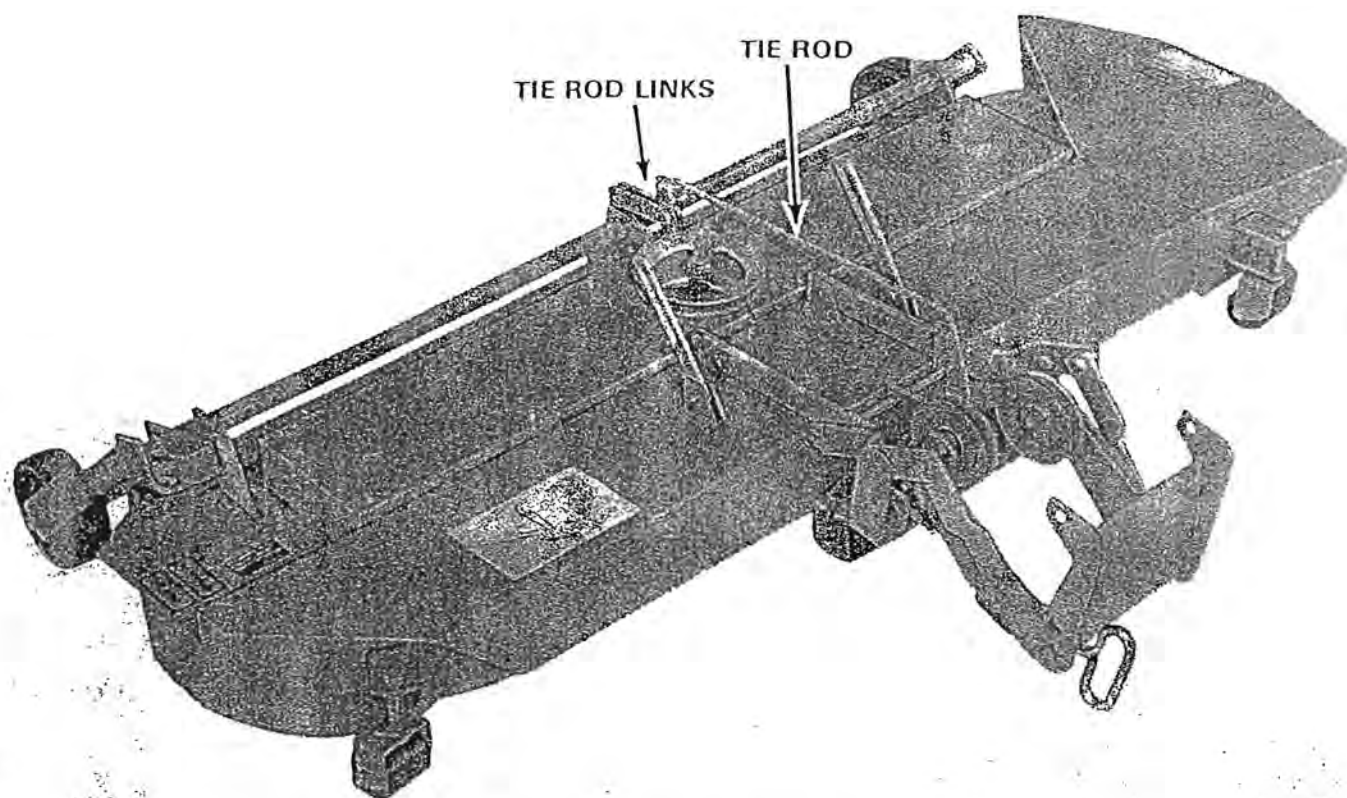


FIGURE 16 Mower - Assembled

**NOTE:** This illustration is for your reference only. Do not assemble the mower before mounting to tractor.

## INSTALLING THE MOWER:

1. Turn the front wheels full left as shown in Figure 17 and slide the deck under the tractor from the right hand side. When the left caster contacts the left front tire, turn the front wheels full right. Center the deck under the tractor.

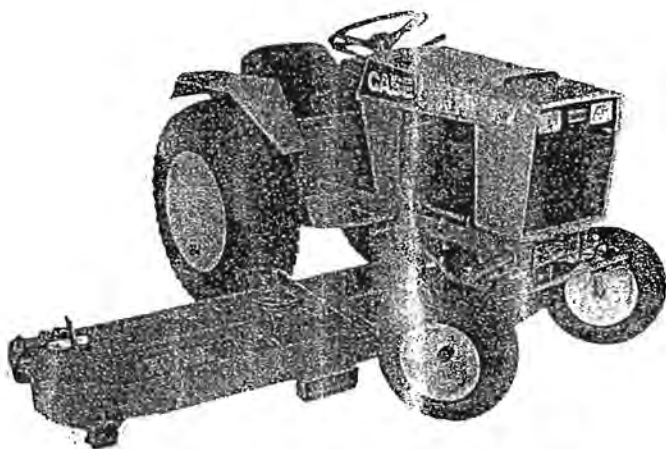


FIGURE 17 Sliding Deck Assembly Under Tractor

2. Turn the key on the front mounting bracket assembly fully counterclockwise.
3. Install the front mounting bracket by lifting the front of the mounting bracket high while guiding the nuts that secure the anchor pins between the two bolts on the bracket. See Figure 18.

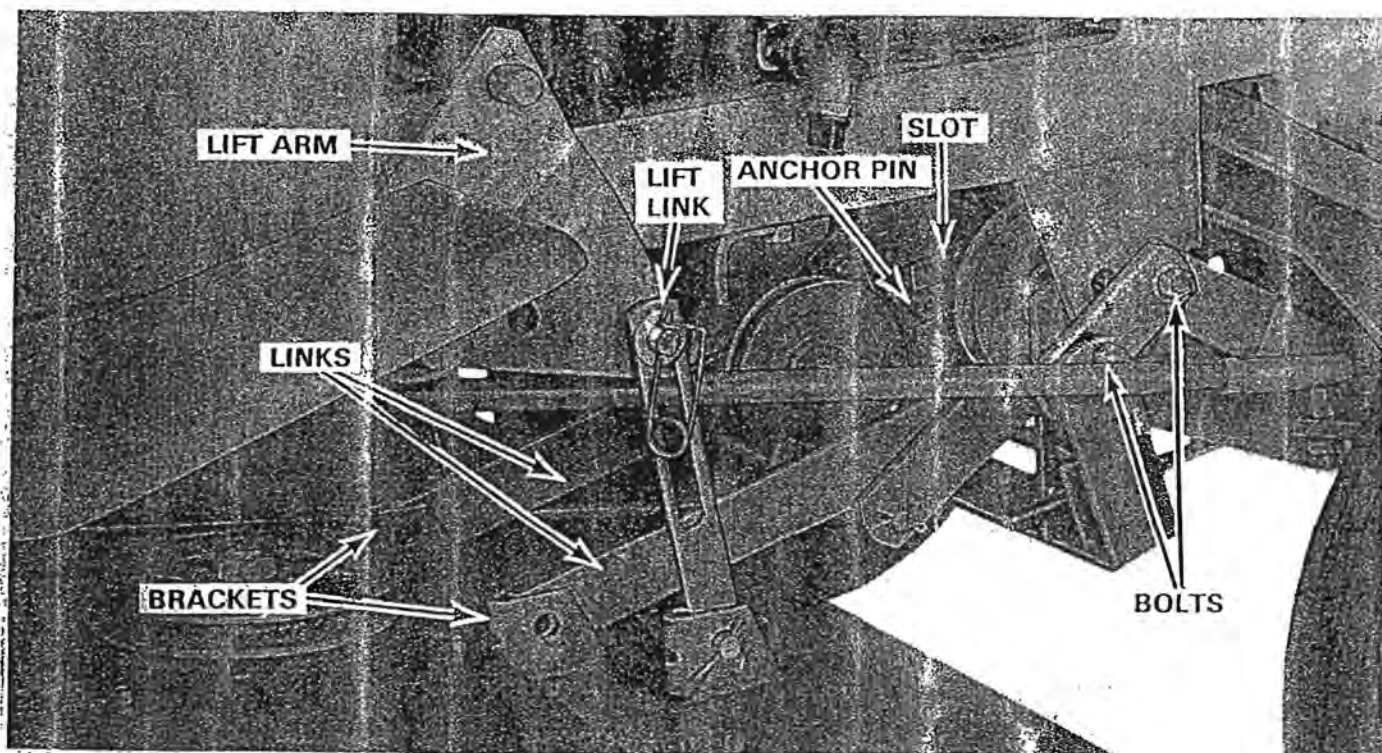


FIGURE 18

4. Push the slots over the anchor pins. Lower the front and engage the snap fast pins.
5. Guide the two links into the two inner brackets on the deck. Insert the clevis pins from the inside out and secure with safety pins.
6. Connect the lift links to the outside of the lift arms. Insert the clevis pins through from the inside and secure with a washer and safety pin.
7. Insert the leveler link through the holes from the right hand side and with the threaded end up. Secure the top with a washer and cotter pin. Secure the bottom with a washer and safety pin. See Figure 19.
8. Carefully raise the hydraulic lift until the tie rod aligns with hole "A". Insert the rod and secure with a flat washer and safety pin. Shut off the engine.
9. Install the belt:
  - a. stop the engine
  - b. remove the ignition key
  - c. permit the engine to cool
  - d. engage the attachment drive clutch
  - e. raise the hood and remove the spark plug wire
  - f. pull the belt up in front of the idler pulleys



- g. pull the belt up and between the heat exchanger and the fan
- h. put the belt on the pulley of the attachment drive clutch
- i. disengage the attachment drive clutch
- j. turn the belt adjusting handle fully clockwise to allow the belt to go around the idler pulleys
- k. hook the long straight end of the spring into the hole in the tab for the left idler pulley. Hook the other end of the spring in the upper hole in the left side plate of the front mounting bracket.
- l. align the belt on the idler pulleys
- m. put the belt on the pulley of the lawn mower. Make sure the belt is correctly located on each pulley. See Figure 5.
- n. turn the adjusting handle counterclockwise for belt tension. The gap between spring coils must be equivalent to one wire diameter.

**IMPORTANT:** Before operating the lawn mower, read and follow the Adjustments and Maintenance sections of this manual.

10. Make the mower blades level. See page 12.

#### REMOVING THE MOWER:

1. Remove the drive belt.
2. Raise the mower into the "transport" position.
3. Remove the forward end of the tie rod from hole "A" Figure 19.
4. Lower the mower so weight is removed from the lift links.
5. Remove the leveler link from the mower.
6. Remove the clevis pins which secure the links to the two inner brackets.
7. Remove the lift links from the lift arms.
8. Pull out the snap fast pins and remove the front mounting bracket assembly.
9. Slide the mower deck from under the tractor.

Ingersoll Equipment Company reserves the right to make improvement in design or changes in specifications at any time without incurring any obligations to install them on units previously sold.

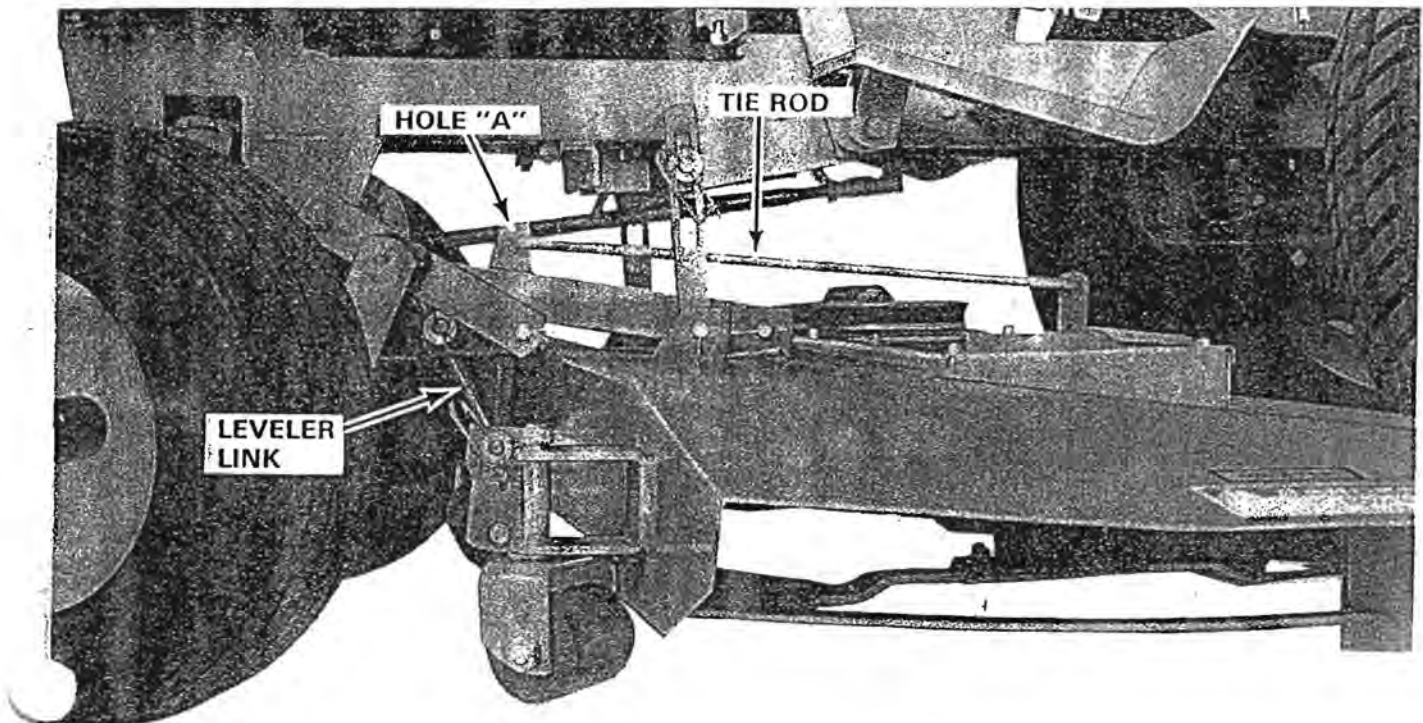


FIGURE 19



