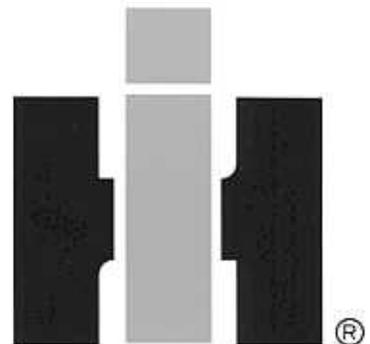


**INTERNATIONAL  
ROTARY MOWERS  
38C 44C AND  
50C 3-SPINDLE**

**INTERNATIONAL®**

**OPERATOR'S MANUAL**



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# INTRODUCTION

The 3 spindle, center mounted 38C, 44C, and 50C rotary mowers are designed for use on International Cub Cadet Tractors. The mowers are quick detachable by the use of two spring loaded handles and two bayonet type hangers.

The mower extends beyond the tractor wheels to permit cutting close to shrubbery, trees, fences, buildings, drive and walkway edges, etc.

The mower is driven by a V-belt from the engine mounted power take-off clutch. The clutch is operated by means of a switch on the instrument panel.

A heavy-duty V-belt connects the three spindles and permits independent turning of the blades when an obstruction is struck by a blade. A spring-loaded belt tightener maintains proper belt tension.

The blade spindle bearings are automotive type ball bearings that can be relubricated and are carefully enclosed and protected by seals.

The three cutting blades are designed to create a suction to lift the grass and hold it for an even cut.

Raising and lowering of the mower is done by means of the tractor lift handle or the power lift.

The lift linkage provides and maintains a true parallel lift for the mower. The cutting height ranges from approximately 1 to 4-inches, depending on tires and mower combination.

Gauge wheels allow the mower to follow the contour of the ground and minimize ground scalping. The mower front roller also aids in minimizing scalping.

The lift linkage with mounting brackets can be quickly detached by removing the quick-attachable cotter pins and releasing the tractor quick hitch.

The mower can be removed quickly by pulling the rear support pins, moving the mower forward off the front hangers and taking off the belt.

The tapered discharge chute terminates at a large, protected opening for efficient air and material flow across the front of the mower to minimize clogging.

An adapting package is required to mount the 50-inch mower.

The adapting package for the 482, 582, 682 and 782 tractors consists of an adjustable link, a lift link and a drive belt.

The adapting package for the 982 tractors consists of a different adjusting link, a longer lift link, a belt guide and attaching hardware and a longer drive belt.

Keep the machine in good operating condition and keep safety devices in place. Use guards or shields as instructed.



# WORK SAFELY

# FOLLOW THESE RULES



Instructions given with this symbol are for personal safety. Be sure you and your workers follow them.

## A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT

The mower discharge shield must be attached at all times.

Always keep safety shields in place.

Disengage all clutches and shift into neutral before starting the engine.

Never place hands or feet under the mower, in the discharge chute, or near any moving parts while the tractor engine is running. Do not work on the mower with the engine running as the mower could accidentally be engaged and cause injury.

Know the controls and how to stop quickly. **READ THE OPERATOR'S MANUAL.**

To prevent injury, do not carry passengers or give rides. (Keep children, pets and by-standers out of the area while mowing.) Only the operator should ride on the tractor and only in the seat.

Children should not be allowed to operate the tractor unless properly supervised, and are physically and mentally capable of safe operation or injury may occur.

Be sure all stones, branches, or other objects that might be picked up and thrown by the mower blades are removed before starting to mow.

Small objects may be discharged by the mower. To reduce the possibility of serious injury, never direct discharge toward by-standers nor allow anyone in the area of the machine while in operation.

Always wait for the tractor to come to a complete stop, disengage the PTO, lower equipment to the ground, place the transmission and all other controls in the neutral position, engage the brake lock so the tractor will not roll, and remove the key to avoid unauthorized operation of the tractor.



**CAUTION! No riders.**

MA-16888 A

Reduce speed on slopes and in sharp turns to prevent tipping or loss of control.

Always keep the tractor in gear when going down hills.

Stay alert for holes in terrain and other hidden hazards which could cause loss of control or an upset.

To avoid the possibility of an upset, always engage the clutch slowly, especially on steep slopes. Avoid quick starts and stops.

Avoid Overturns — Back the tractor up the steepest portion of the hill to be mowed. If the tractor cannot do this, the hill is too steep for safe operation. When mowing hills, cut down the face of the hill rather than across to avoid side tipping.

Disengage power to any attachment when transporting or not in use.

Stop the tractor, disengage all clutches, power take-off, shut off the engine, and lock the brakes. Inspect the machine for damage after striking a foreign object. Repair any damage before restarting the machine.

When making any adjustments to your mower, always disconnect the high tension wire to the spark plug, otherwise the engine may start causing serious injury.

Watch out for traffic when crossing or near roadways.

# ADJUSTING AND OPERATING

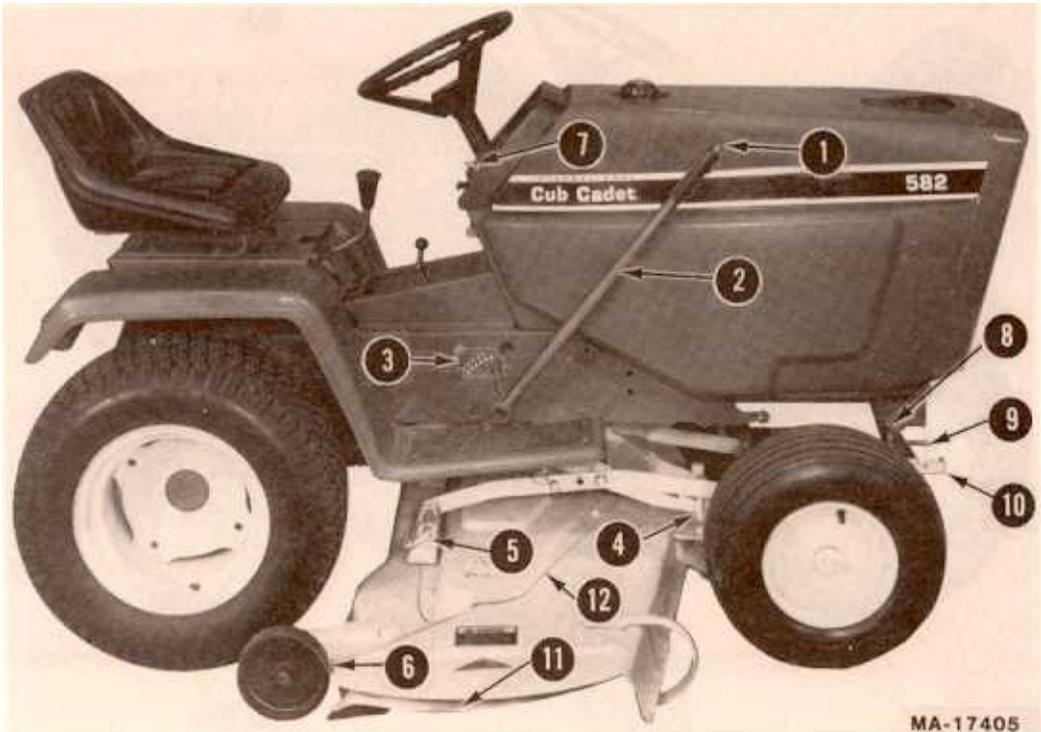


## 38-INCH MOWER

- 1 - Lift lever release button
- 2 - Lift lever
- 3 - Lift lever position decal
- 4 - Mower support hangers
- 5 - Mower support pins

- 6 - Belt shields -2-
- 7 - Deflector shield
- 8 - Quick hitch handle
- 9 - Idler ratchet handle
- 10 - Mower runners -2-

## ADJUSTING AND OPERATING



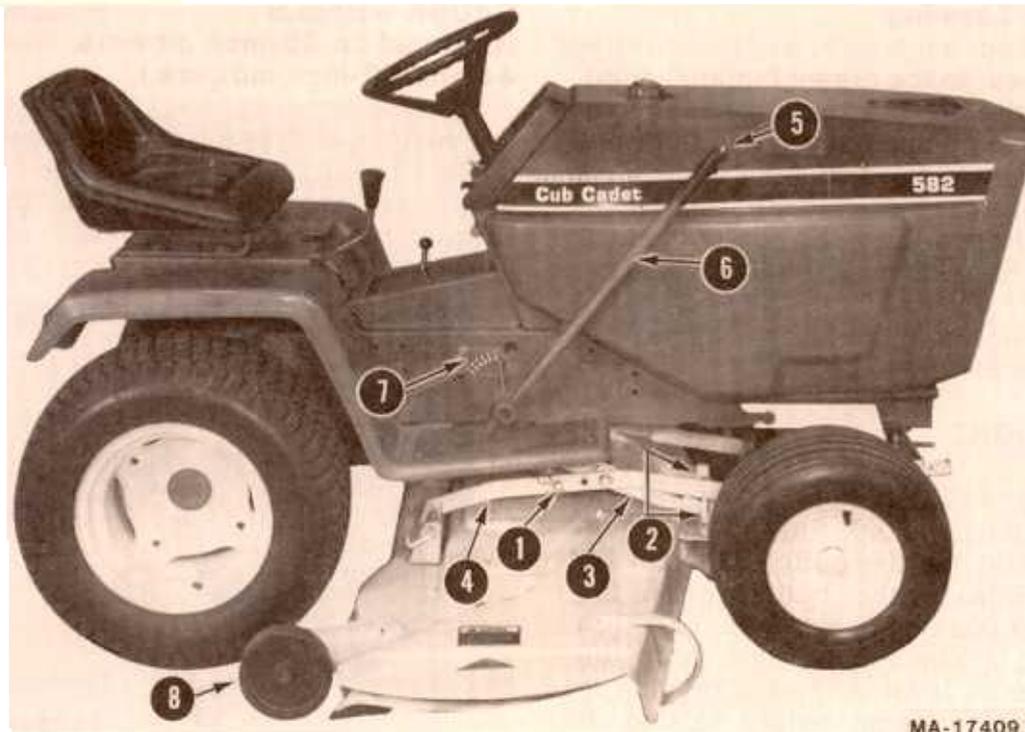
50-Inch Mower Shown  
44-Inch Mower is Similar

- 1 - Lift lever release button
- 2 - Lift lever
- 3 - Lift lever position decal
- 4 - Mower support hangers
- 5 - Mower support pins
- 6 - Gauge wheels

- 7 - Power take-off switch
- 8 - Quick hitch handle
- 9 - Idler adjusting bolt
- 10 - Idler ratchet handle
- 11 - Deflector shield
- 12 - Belt shield

## ADJUSTING AND OPERATING

### LEVEL ADJUSTMENT



44 and 50-Inch Mower Shown 38-Inch Similar

- |                           |                          |
|---------------------------|--------------------------|
| 1 - Adjustable lift link  | 5 - Release button       |
| 2 - Mower support hangers | 6 - Lift lever           |
| 3 - Center frame          | 7 - Lever position decal |
| 4 - Lift frame            | 8 - Gauge wheels         |



**CAUTION!** Before making any adjustments, turn off the machine, remove the key, and lock the parking brake to avoid accidental starting and injury.

**Remove the spark plug high tension leads.**

**NOTE:** Check the tires for proper inflation before making a level and height adjustment. To level the mower, put the tractor on a level surface. A hard surface such as a garage floor or sidewalk is preferable.

#### Side to Side Leveling

The 38-inch mower is equipped with two adjustable lift links and blocks. This feature allows the mower to be set to a very low cutting height.

On the 38-inch mower adjust left hand link so that end of threaded portion is flush with bottom of block. Adjust right hand link for side to side leveling of the mower.

The 44 and 50-inch mowers are equipped with one adjustable lift link and block and one non-adjustable lift link.

Lower the mower to the ground and remove the quick-attachable cotter pin(s) and flat washer(s) that secure the adjustable lift link(s) to the tractor lift arm. Move the link(s) back to clear the pin. Turn the link(s) right or left so the height measured at the bottom lip of the mower housing to the surface is equal on each side.

## ADJUSTING AND OPERATING

### Front to Rear Leveling

Lower the mower to the preset cutting height. Rotate the center and one outer blade so they are parallel and pointing straight to the front and rear. Then adjust the two support hangers the same amount at the front of the mower so the front edge of the center blade is level with the back edge of the outer blade.

**NOTE:** If the mower is not level, it will adversely affect the performance.

### CUTTING HEIGHT

On 482, 582 and 682 tractors the mower can be set in multiple positions. Pull the lift handle back slightly and depress button on top of the lift handle. Release the button when the desired mower position is obtained. To return the mower to a specific position, note the position of the lift lever pointer in relation to the lever position decal before raising or lowering the mower.

On the 782 and 982 tractors raise the mower to the desired height by moving the hydraulic lift lever located in the instrument panel. Loosen the cam lock knob, and turn the cam stop until it contacts the tang on the cross shaft.

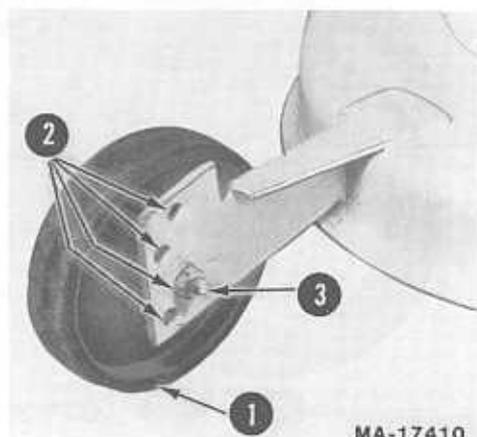
Tighten the cam lock knob securely.

The mower can now be raised to clear an obstacle and lowered to the previously set height.

### GAUGE WHEELS

(Optional on 38-inch mowers. Standard on 44 and 50-inch mowers.)

Set the gauge wheels just off the hard surface by locating in the proper holes. The gauge wheels prevent scalping and are not meant to set the cutting height.



- 1 - Gauge wheel
- 2 - Adjustment holes
- 3 - 3/8-inch nut and lock washer

### STARTING THE MOWER

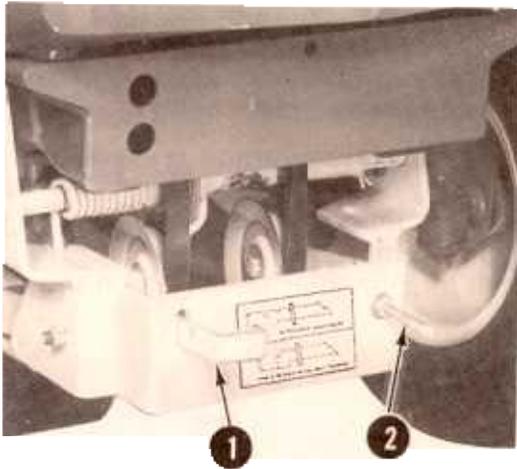
With the engine running at idle speed, start the power take-off clutch by moving the switch to "On". Starting the mower with the engine at idle will reduce wear on the drive belt. Increase engine speed to full throttle.

### STOPPING THE MOWER

Move the power take-off switch to "Off" and reduce the engine speed.

## ADJUSTING AND OPERATING

### BELT TENSION



MA-17411A

**1 - Idler ratchet**

**2 - Tension bolt**

After first 1 hour and every 10 hours thereafter of running, check the V-belt tension and adjust if necessary.

To adjust the belt for proper tension tighten the V-belt tension bolt so the notch on the idler ratchet is in line with the slot on the cover as shown in the illustration.

See decal on front cover.

**NOTE:** After the first half hour of mowing, check the belt for proper tension.

**NOTE:** When installing a new belt always check the condition of the pulleys and if they are not in satisfactory condition, replace them with new pulleys available at your International Harvester dealer.

To install or remove the belt, the idler ratchet handle must be pushed in and up to lock handle in notch. This will provide the necessary clearance for the belt to be slipped over the pulley flanges. With the lift frame in the lowest position and the mower removed, the belt can be pulled between the idlers and off of the tractor.

After installing the drive belt, release the ratchet handle and adjust the belt as previously described.

**NOTE:** Be sure narrow dimension of belt is in bottom of all pulley grooves.

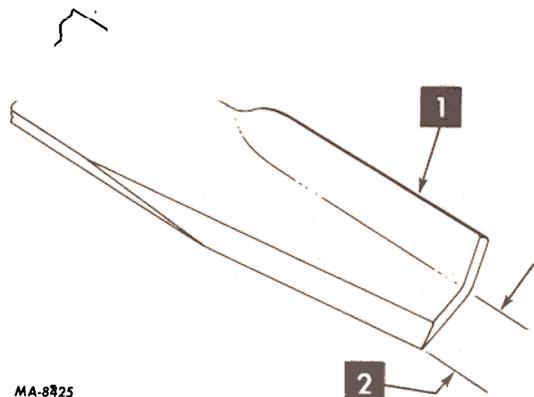
**CAUTION!** Stop the tractor, disengage the power take-off, place all controls in neutral, engage the brake lock and stop the engine before performing any maintenance.

After the first 10 hours of operation check and retighten, if necessary, all nuts and bolts on the machine. Tighten the hex. nuts used to attach the blades to the spindles to 50 to 60 lbf. ft. (68 to 81 N·m). Tighten the hex. nuts used to attach the pulleys to the spindles to 90 to 110 lbf. ft. (122 to 149 N·m). Check and retighten, if necessary, all nuts and bolts once a year thereafter.

### CLEANING AND BLADE CARE

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

Clean the underside of the mower at the end of the mowing season and when the build-up of cut material on the underside is noticed. Also, remove the belt cover and remove any accumulation.



MA-8825

**1 - Wind wing**

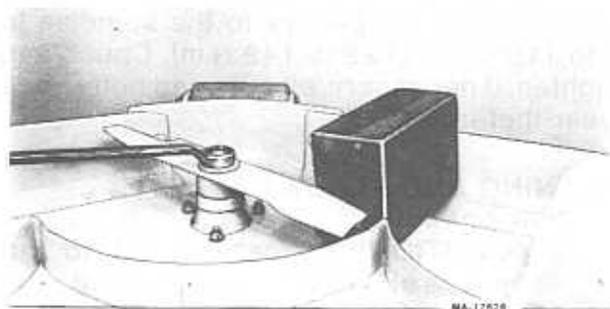
**2 - Dimension is 3/8-inch**

## ADJUSTING AND OPERATING

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. New blades are available at your IH dealer.

When removing the outer blades, hold the welded hex. nuts on the pulleys with a 1-1/4-inch socket wrench to remove the hex. nuts holding the blades. A block of wood may be placed between housing and cutting edge of blade to assist in removal of hex. nuts securing blades or pulleys.



**Wood Block in Position**

After replacing blades, grease the threaded end of the shaft to prevent rust build-up.

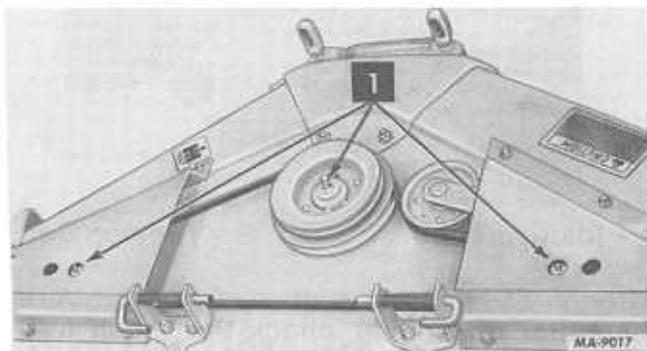
When replacing the blades, be sure they are assembled so the cutting edges are in the direction of rotation with the wind wings pointed upward. On the 44 and 50 inch mowers, assemble the washers on top and bottom of the blades. On the 38-inch mower, assemble the blades with two washers on top and one washer on the bottom of the blades. Tighten the nuts 50 to 60 lbf. ft. (68 to 81 N-m).

**NOTE:** If the spindle pulley nuts are removed for any reason, they should be retightened to 90 to 110 lbf. ft. (122 to 149 N-m) torque when replaced.

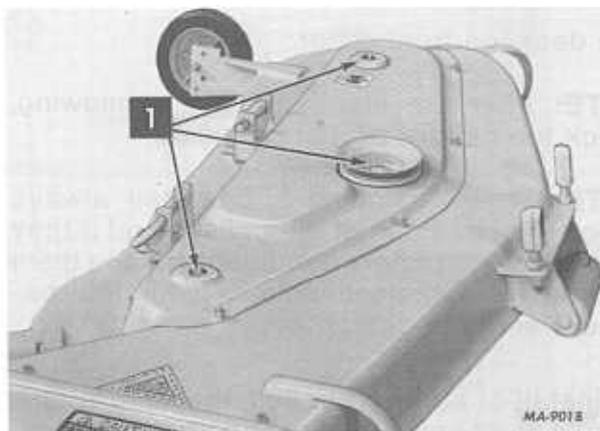
## LUBRICATION

After every 180 hours of operation, and/or before putting in winter storage, lubricate the spindle bearings using IH 251H EP grease or equivalent No. 2 multi-purpose lithium grease. Use a sufficient amount to flush out the old grease and dirt.

Also, before winter storage, remove idler pivot shaft and grease the area where the torsion spring and idler arm tube ride on the front hanger assembly. Apply a few drops of oil on the belt tension idler pivot hub on the mower deck.



**1 - Spindle bearings  
38-inch mower.**

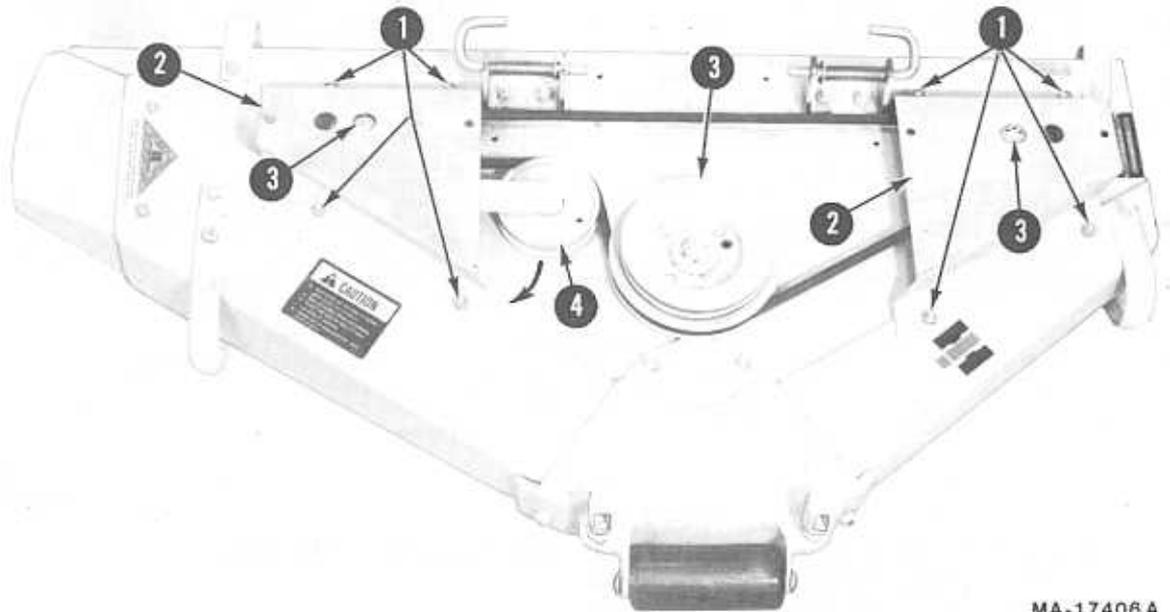


**1 - Spindle bearings  
44-inch and 50-inch mowers.**

## ADJUSTING AND OPERATING

### SPINDLE BELT 38 INCH MOWERS

To replace spindle drive belt, remove both belt covers. Move idler pulley in direction of arrow. Remove the old belt. Install the new belt around pulleys. Be sure belt is in the lower groove of the center pulley. Release the pressure on the idler pulley. Reinstall both belt covers.



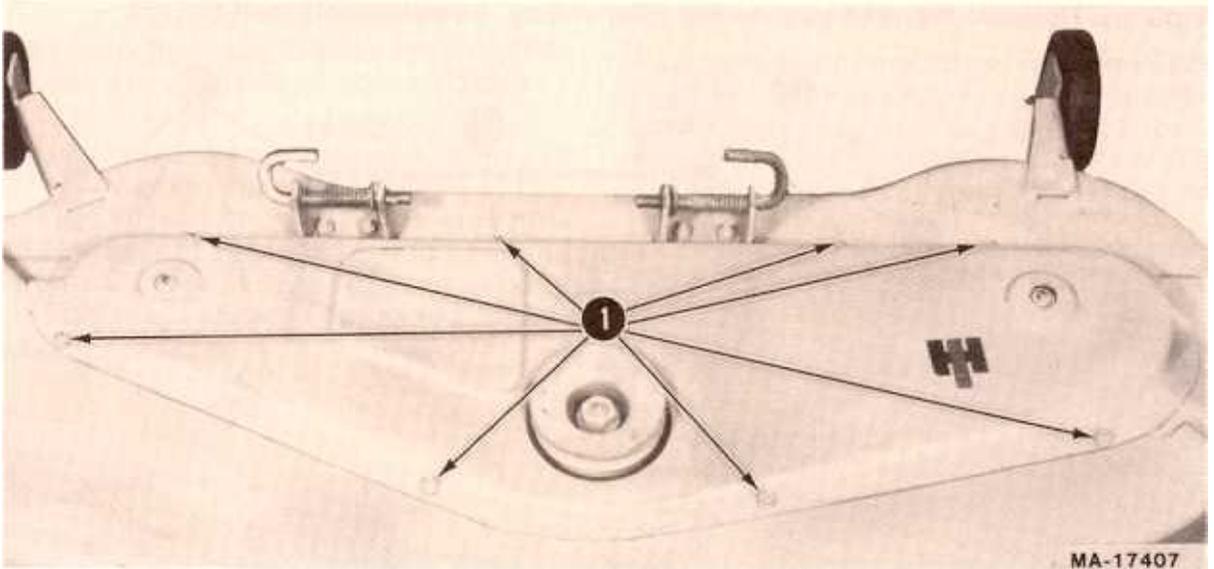
MA-17406A

- 1 - Nut, 5/16 and lockwasher -8-
- 2 - Belt shield -2-
- 3 - Belt pulleys -3-
- 4 - Idler pulley

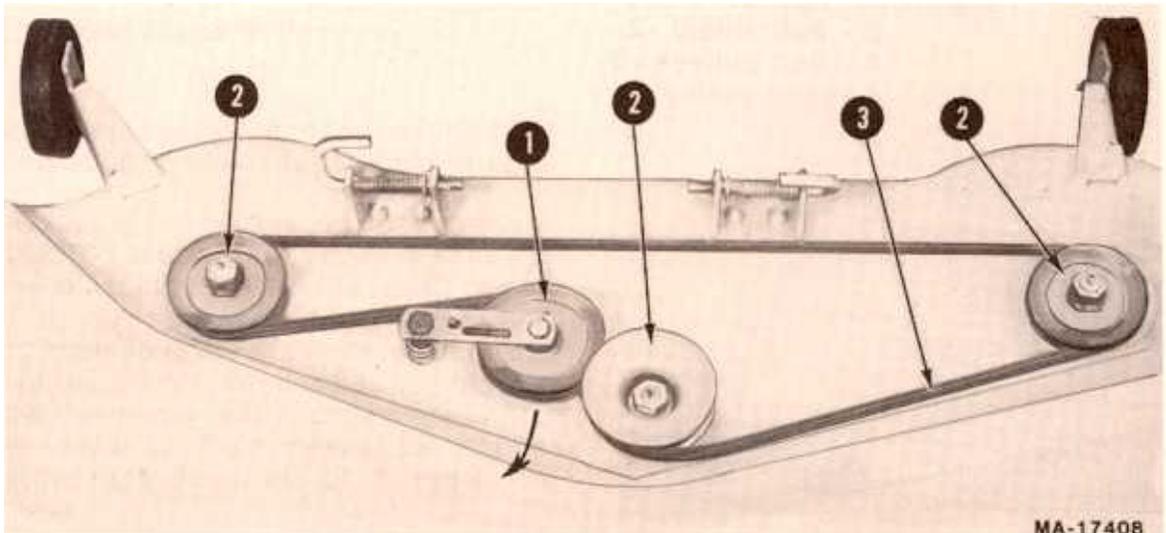
## ADJUSTING AND OPERATING

### SPINDLE BELTS 44 AND 50 INCH MOWERS

To replace spindle drive belt, remove belt cover. Move idler pulley in direction of arrow. Remove the old belt. Install the new belt around pulleys. Be sure belt is in lower groove of the center pulley. Replace belt cover.



- 1** Nut, 5/16-inch and washers, 11/32 x 11/16 x .065-inch  
7 required for 44-inch mowers  
8 required for 50-inch mowers



- 1** - Idler pulley  
**2** - Spindle pulleys  
**3** - Spindle drive belt

## ADJUSTING AND OPERATING

### MOWING

 **CAUTION!** To avoid possible injury, do not allow anyone in the area opposite the discharge chute while mowing. Although the area has been supposedly cleared of foreign objects, small objects may have been overlooked and may be discharged by the mower.

For best results it is recommended that the first two laps should be cut with the discharge being thrown towards the center. After the first two laps, reverse the direction to throw the discharge to the outside for the balance of cutting. This will give a better appearance to the lawn.

Do not cut the grass too short, as the mower will tend to scalp the grass. Short grass invites weed growth, and yellows quickly in dry weather.

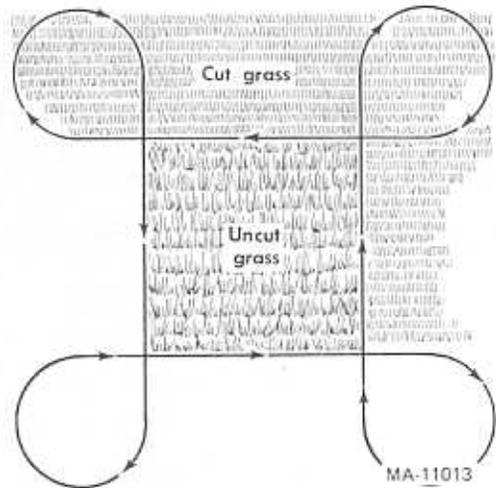
Mowing should be done with the engine at full throttle. Do not mow at high ground speed.

During certain times of the year and under some conditions, the mower may leave streaks of uncut material.

Streaking may occur when attempting to mow heavy weeds and tall grass. Under these conditions it may be necessary to go back over the cut area a second time to get a clean cut.

The following practices will help eliminate streaking:

1. Mow the area more often so the grass doesn't get too tall and heavy.
2. Operate the tractor at full throttle and lower forward speeds.
3. Keep the blades sharp and replace blades when worn. Refer to section on blade care on page 15.
4. Follow the mowing procedure shown in the illustration.



 **CAUTION!** Never direct discharge of material toward by-standers nor allow anyone near the machine while in operation.

MA-16878

# SETTING UP

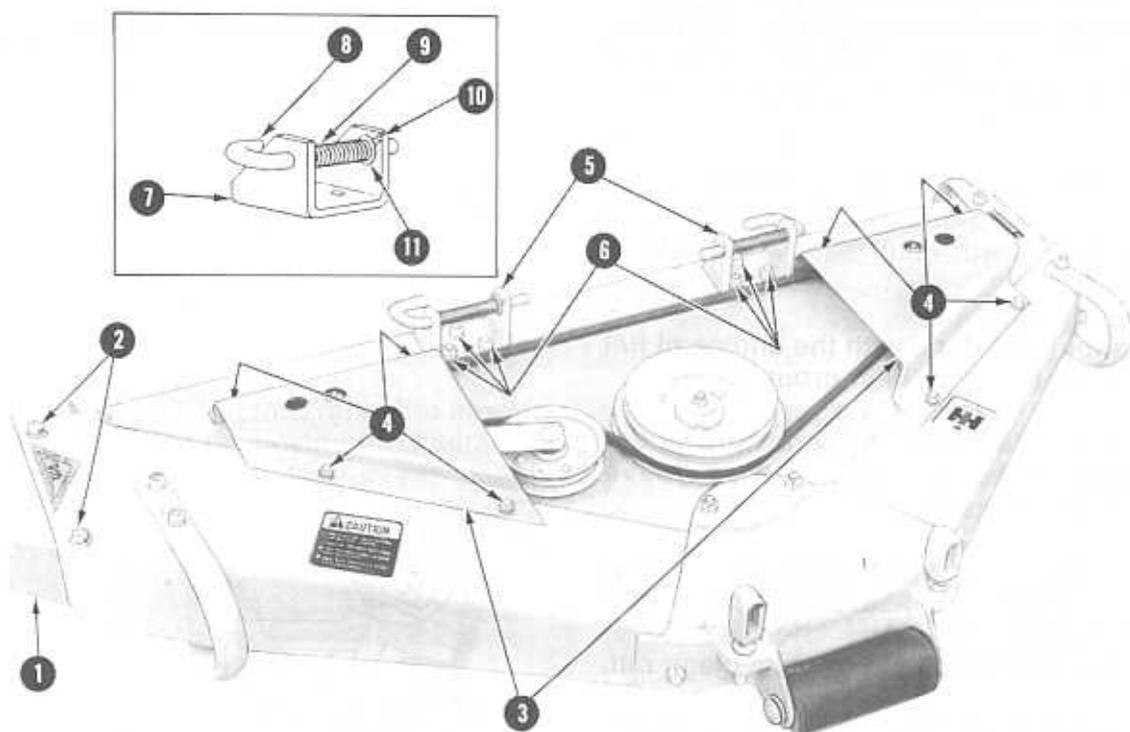
## STEP 1. MOWER PREPARATION

### 38 INCH MOWERS

Attach deflector shield to the mower housing.

Attach mower belt covers to the mower housing.

Attach support pin bracket assemblies to the mower housing.



MA-17397 A

- 1 - Deflector shield
- 2 - 5/16-inch bolts -2-  
.344 x .688 x .051-inch washers -2-  
5/16-inch lock washers -2-  
5/16-inch nuts -2-
- 3 - Belt covers -2-
- 4 - 5/16-inch lockwashers -8-  
5/16-inch nuts -8-
- 5 - Support pin brackets -2-

- 6 - 3/8 x 1-1/8-inch bolts -6-  
.406 x .812 x .051-inch washers -6-  
3/8-inch lock washers -6-  
3/8-inch nuts -6-
- 7 - Bracket
- 8 - Support pin
- 9 - Spring
- 10 - Pin
- 11 - Flatwasher

## SETTING UP

### STEP 1. MOWER PREPARATION (continued)

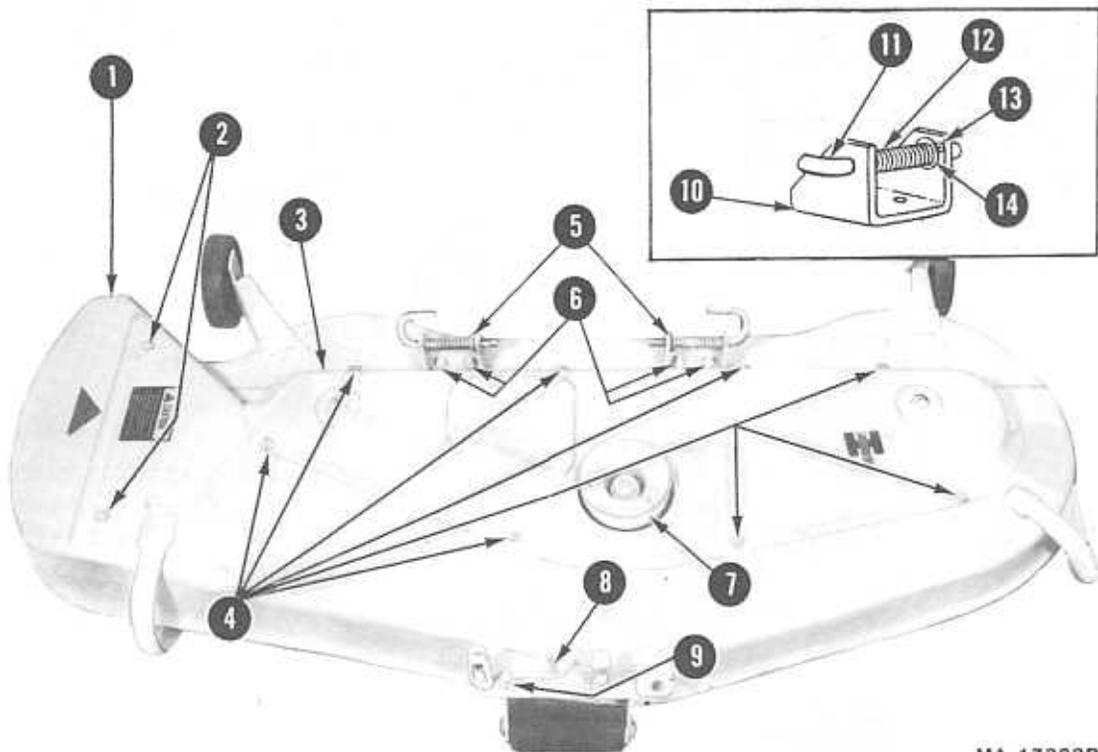
#### 44 and 50 INCH MOWERS

Attach deflector shield to the mower housing.

Attach mower belt cover to the mower housing.

On 982 tractors equipped with 50 inch mowers, attach drive belt guide to the mower housing. Adjust guide to within 1/8-inch of belt after mower is mounted.

Attach support pin bracket assemblies to the mower housing.



MA-17398B

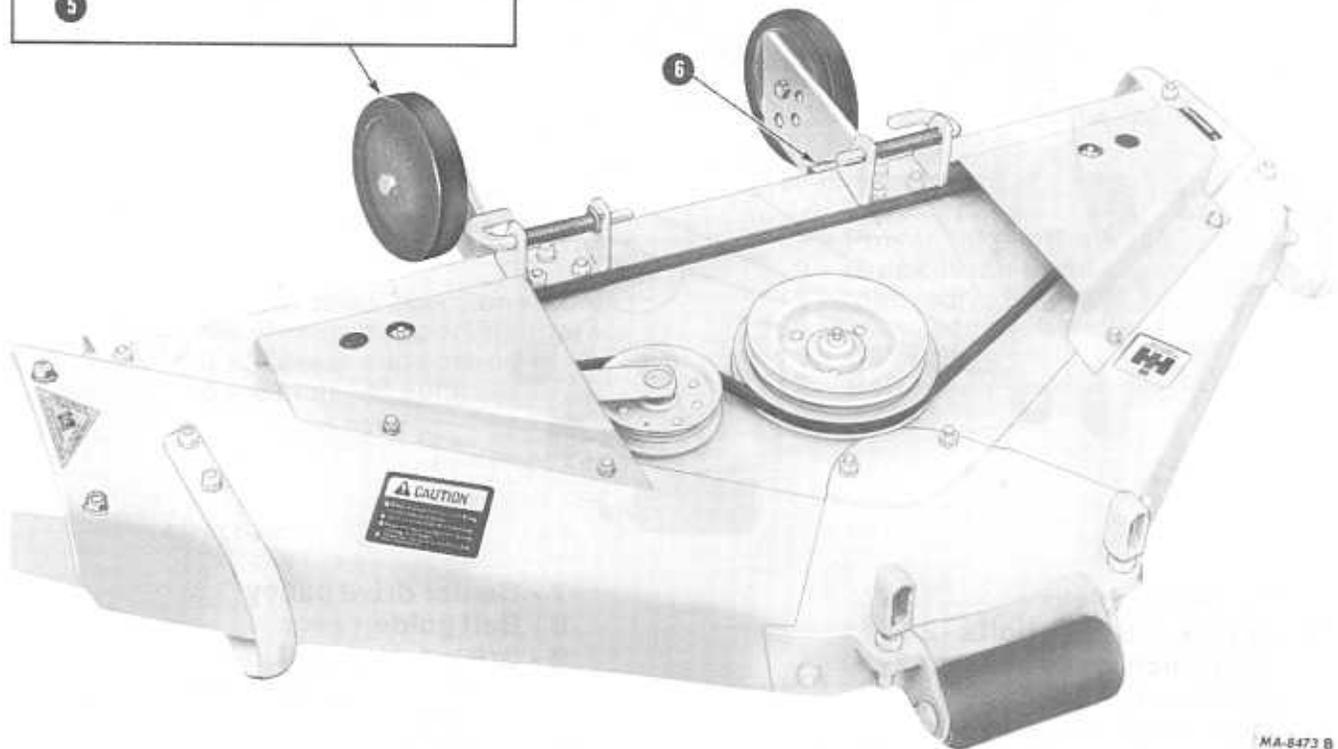
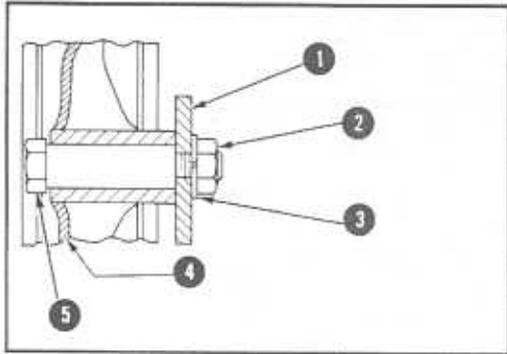
- |   |   |
|---|---|
| 1 - Deflector shield  | 7 - Center drive pulley   |
| 2 - 5/16 x 5/8-inch bolts -2-<br>5/16-inch lockwashers -2-<br>5/16-inch nuts -2-  | 8 - Belt guide  |
| 3 - Mower belt cover  | 9 - 3/8 x 1-inch bolt<br>.406 x .812 x .051-inch washer<br>3/8-inch nut |
| 4 - .344 x .688 x .051-inch washers<br>5/16-inch nuts<br>(7 used on 44-inch mowers)<br>(8 used on 50-inch mowers)           | 10 - Bracket  |
| 5 - Support pin brackets -2-  | 11 - Support pin  |
| 6 - 3/8 x 1-inch carriage bolts -6-<br>.406 x .812 x .051-inch washers -6-<br>3/8-inch lockwashers -6-<br>3/8-inch nuts -6- | 12 - Spring   |
|   | 13 - Spiral roll pin  |
|   | 14 - Washer   |

## STEP 2. GAUGE WHEEL ARMS AND GAUGE WHEELS

### (Optional Equipment) 38-INCH MOWER

Attach the arms to the mower with the heads of the cap screws on the inside of the mower housing.

**NOTE:** The holes required to attach the gauge wheel arms are already drilled in the mower housing for the 38-inch mower.



MA-5473 B

- 1 - Gauge wheel arms -2-
- 2 - 3/8-inch hex. jam nuts -2-
- 3 - 3/8-inch lockwashers -2-
- 4 - Gauge wheels -2-

- 5 - Shoulder bolts -2-
- 6 - 3/8 x 7/8-inch bolts -4-
- 3/8-inch lockwashers -4-
- 3/8-inch nuts -4-

## SETTING UP

### STEP 3. LIFT FRAME PREPARATION

Attach the front hanger to mower frame with shoulder bolts, lock washers and nuts.

On the 482, 582, 682 and 782 tractors with 38-inch mowers use "Position 1" in the front hanger.

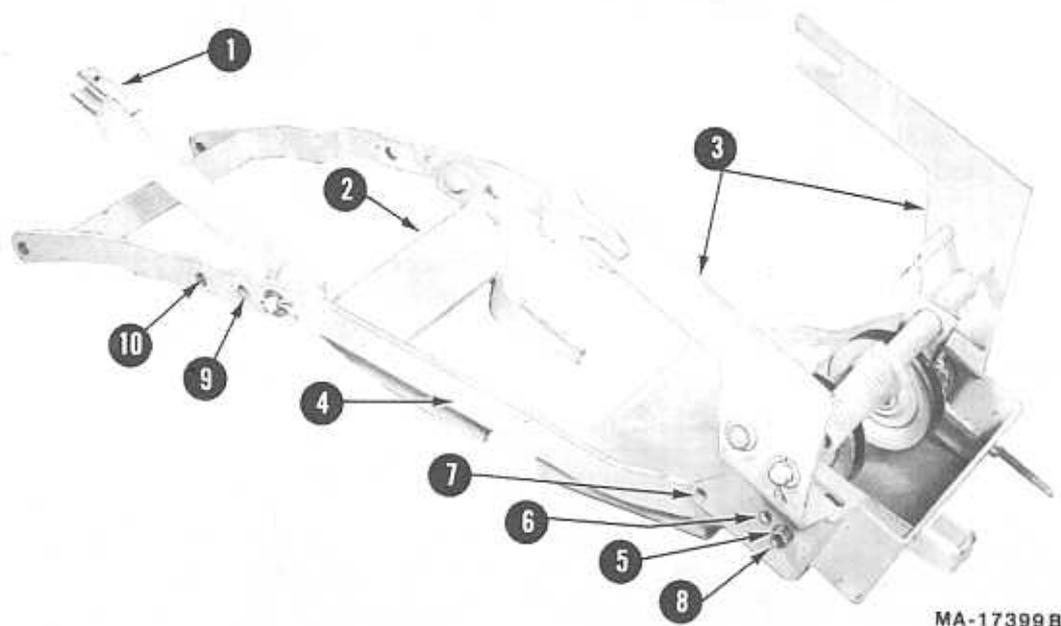
On the 482, 582, 682 and 782 tractors with 44 and 50-inch mowers use "Position 2" in the front hanger.

On the 982 tractors use "Position 3" in the front hanger.

Torque shoulder bolts, lockwashers and nuts to 33 to 37 lbf. ft. (45-50 N·m).

On 982 tractors use "Position 4" in the mower frame to attach the lift links.

On 482, 582, 682 and 782 tractors use "Position 5" in the mower frame to attach the lift links.



- 1 - Center frame bar
- 2 - Center frame
- 3 - Front hanger
- 4 - Mower frame
- 5 - Position 1

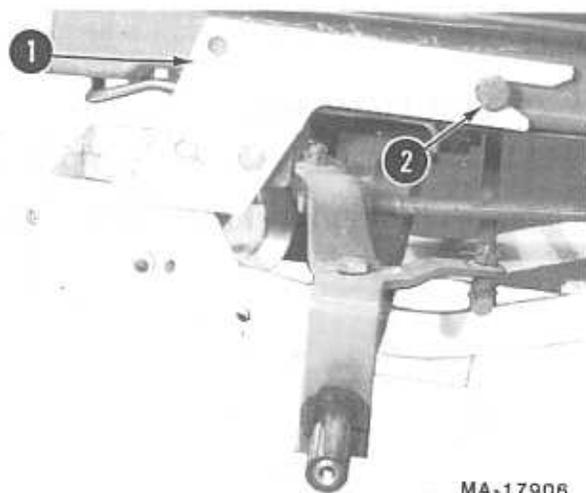
- 6 - Position 2
- 7 - Position 3
- 8 - Shoulder bolt -2-
- 3/8-inch lockwasher -2-
- 3/8-inch nut -2-
- 9 - Position 4
- 10 - Position 5

## SETTING UP

### STEP 4. ATTACHING FRONT HANGERS, QUICK LATCH PINS, CENTER FRAME BAR AND LIFT FRAME

#### FRONT HANGERS AND QUICK LATCH PINS

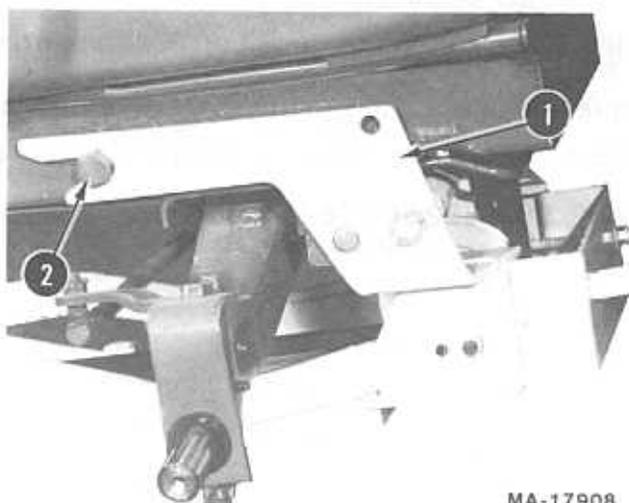
Pull the quick hitch handle downward to the unlocked position. Slide the mower frame assembly under the tractor. Lift the front of the mower frame assembly and push the front hangers against the shoulder bolts. At the same time, push the quick latch pins into the latch receiver. Push the quick hitch handle upward into the lock position.



MA-17906

Right Side

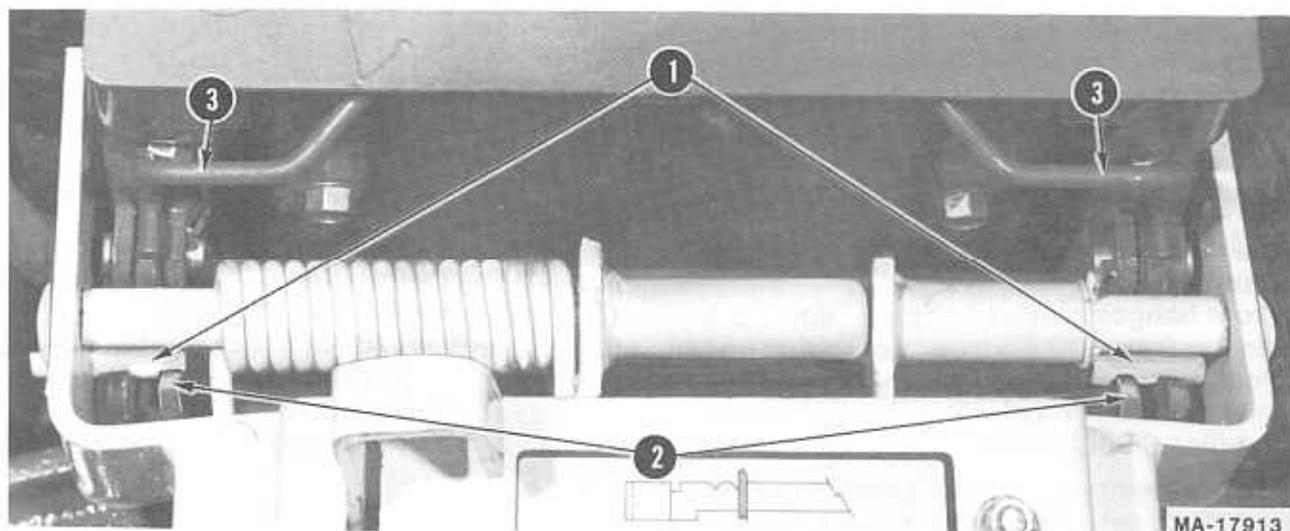
- 1 - Front hanger
- 2 - Shoulder bolt



MA-17908

Left Side

- 1 - Front hanger
- 2 - Shoulder bolt



MA-17913

Front of Tractor

- 1 - Quick latch pins
- 2 - Latch receiver
- 3 - Quick latch handle

## SETTING UP

# STEP 4. ATTACHING FRONT HANGERS, QUICK LATCH PINS, CENTER FRAME BAR AND LIFT FRAME (Continued)

### CENTER FRAME BAR

Engage the center frame bar with the cross shaft located under the tractor.

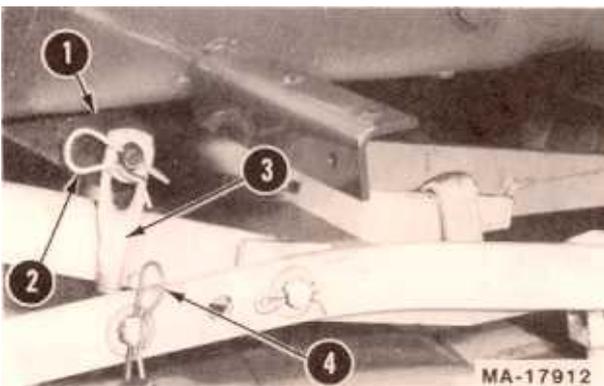


Right Side

- 1 - Cross shaft
- 2 - Center frame bar

### LIFT FRAME -RIGHT SIDE-

For 38 and 44-inch mowers use the adjustable link. For 50-inch mowers use the adjusting bolt from either adapting package.

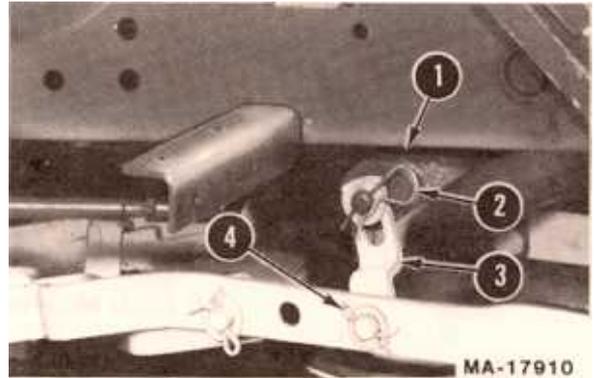


Right Side

- 1 - Rockshaft
- 2 - Quick attachable cotter pin and washer, 17/32 x 1-inch x 22 gauge
- 3 - Adjustable lift link
- 4 - Quick attachable cotter pin and washer, 17/32 x 1-inch x 22 gauge

### LIFT FRAME -LEFT SIDE-

For 38-inch mowers use the adjustable link. For 44-inch mowers use the non-adjustable link. For 50-inch mowers use the non-adjustable link from either adapting package.



Left Side

- 1 - Rockshaft
- 2 - Quick attachable cotter pin and washer, 17/32 x 1-inch x 22 gauge
- 3 - Lift link (non adjustable shown)
- 4 - Cotter pin, 3/16 x 1-inch and washer, 17/32 x 1-inch x 22 gauge

## SETTING UP

### STEP 5. ATTACHING MOWER ASSEMBLY

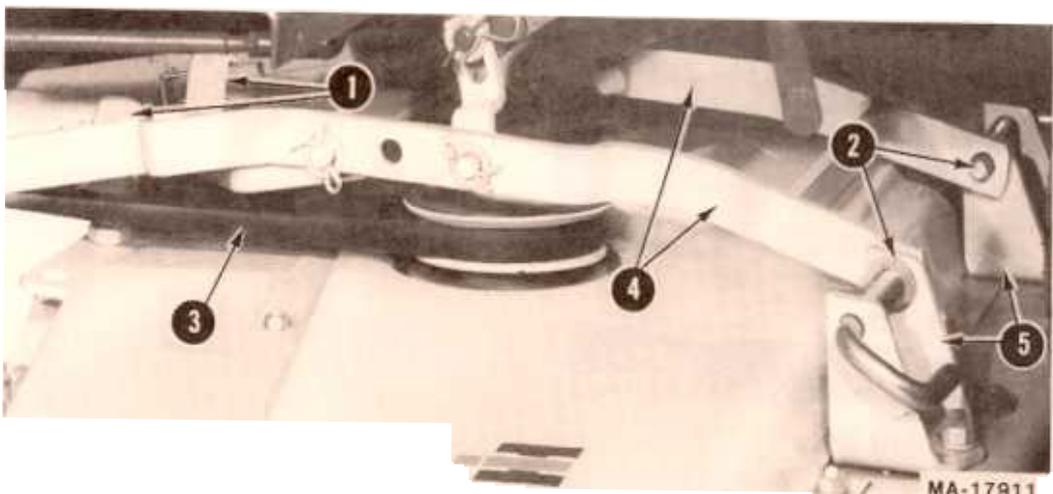
On 38-inch mowers slide mower front support hangers over each leg of center frame. Align and release the mower support pins into the hitch linkage arms. The mower drive belt must be routed inside of the front support hangers.



**38 Inch Mower (Left Side Shown)**

- 1 - Front support hangers**
- 2 - Mower support pins**
- 3 - Drive belt**

On 44 and 50-inch mowers put the drive belt over the center pulley. Pull on the left side of the belt so that the belt is on the outside of the left front support hanger. On the right side the belt must be on the inside of the right front support hanger. When installing a 50-inch mower use the longer drive belt provided in the adapting package. Slide mower front support hangers over each leg of center frame. Pull and turn the support pins away from the support pin brackets. Align the support pin holes in the support brackets with the holes in the hitch linkage arms. Release the support pins into the hitch linkage arms.



**44 and 50 Inch Mower (Left Side Shown)**

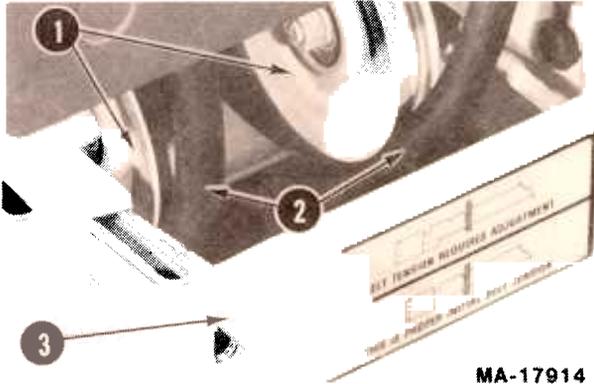
- 1 - Front support hangers**
- 2 - Mower support pins**
- 3 - Drive belt**
- 4 - Hitch linkage arms**
- 5 - Support pin brackets**

## SETTING UP

### STEP 6. DRIVE BELT INSTALLATION

To install the belt, the idler ratchet handle must be pushed in and up to lock handle in notch. This will provide the necessary clearance for the belt to be slipped over the pulley flanges.

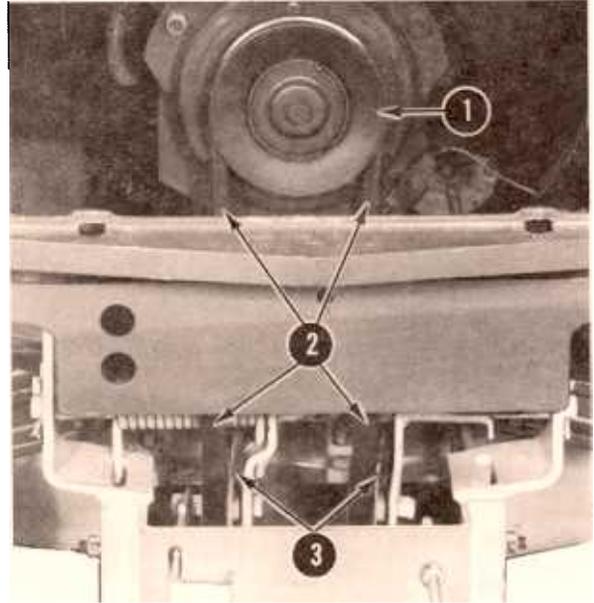
Pull the drive belt forward and route the belt around the idler pulleys. The narrow dimension of the belt must be in the bottom of the pulley grooves.



MA-17914

- 1 - Idler pulleys
- 2 - Drive belt
- 3 - Idler ratchet

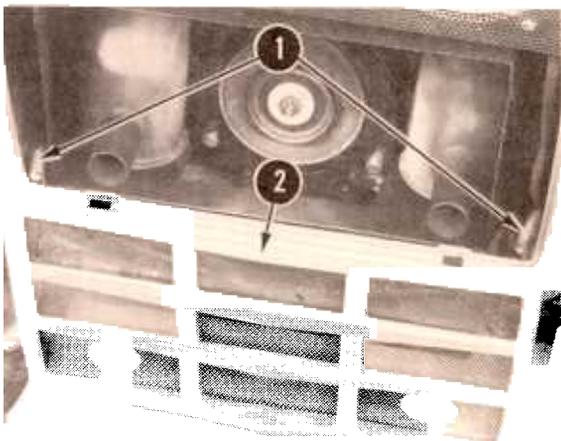
Pull the drive belt upward from the idler pulleys and over the power take-off pulley.



MA-17403 A

- 1 - Power take-off pulley
- 2 - Drive belt
- 3 - Idler pulleys

Pull the grille insert up and away from the grille housing. Pull the top of the grille down until it rests against the front of the tractor. The retaining springs will keep the grille in this position. Do not remove the springs.



MA-17412 A

- 1 - Retaining springs
- 2 - Grille insert

Replace the grille insert in reverse order of removal.

After installing the drive belt, release the ratchet handle.

For adjustments, proper operating procedures and maintenance refer to the "Work Safely – Follow These Rules" and "Adjusting and Operating" sections of this manual.



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