

INTERNATIONAL®
Rotary Mowers

(38A, 44A, and 50A, 3-spindle)

SETTING UP INSTRUCTIONS

INTERNATIONAL®

OPERATOR'S MANUAL



To The Owner

Your new rotary mower is designed to meet today's exacting operating requirements. The ease of operation and ability to adjust to field conditions lighten your work and shorten your hours on the job.

Be sure to read the instructions for Adjusting and Operating in this manual. Check each item referred to and acquaint yourself with the adjustments required to obtain efficient operation and maximum trouble-free performance. Remember, a machine which is properly lubricated and adjusted saves time, labor, and fuel.

You are urged to consult your International Harvester dealer concerning unusual field conditions of special applications. Let the experience of your dealer and the organization associated with him serve you.

After the operating season, thoroughly clean your mower and inspect it. Preventive maintenance pays dividends. Your dealer has original-equipment parts which assure proper fit and best performance. He is able to recondition your equipment to a like new condition.

A Careful Operator

**IS THE BEST INSURANCE
AGAINST AN ACCIDENT**

DELIVERY SERVICE FOR INTERNATIONAL ROTARY MOWERS

This form must be filled out by the dealer and signed by both the dealer and the customer at the time of delivery.

Delivered to _____ Dealer _____

R.R. No. _____ Box No. _____ Town _____

Town _____ Serial No. _____

State _____ Zip _____ Engine Serial No. _____

I have thoroughly instructed the buyer on the above described equipment which review included the Operator's Manual content, equipment care, adjustments, and safe operation. The warranty policy provisions were also explained and reviewed.

DEALER'S SIGNATURE

Above equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

DATE

OWNER'S SIGNATURE

FOLD BACK HERE AND ADD CARBON

CUT ALONG THIS LINE FIRST

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REGIONAL OFFICE COPY

TECHNICAL PUBLICATIONS AVAILABLE

TO THE OWNER
 CONTENTS
 INTRODUCTION

Your International Harvester Dealer and his factory trained servicemen are best qualified to service your equipment. Up-to-date instructions and adequate special tools are also a part of your Dealer's service facilities.

This Operator's Manual was prepared to instruct you in proper operation and maintenance of your equipment. If you desire additional information you may purchase Service Manuals and/or Parts Catalogs. Additional copies of the Operator's Manual are also available.

Fill out the order blank and forward together with your check or money order in the appropriate amount (U.S. Funds) to:

International Harvester Company

PRINTING AND
 DISTRIBUTION SERVICES

807 Blackhawk Drive

Westmont, Illinois 60559

Attention: Cashier

----- Cut Along This Line -----

Title	Number	Qty.	Price Each
Operator's Manual			
International Rotary Mowers (38A, 44A, and 50A, 3-Spindle) For International Cub Cadet Tractors with Serial No. 530,000 and higher	1 084 372 R1		1.40
Parts Catalog			
International Cub Cadet Tractors and Equipment	TC-157		12.00

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Prices subject to change without notice.

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INTRODUCTION

The 3 spindle, center mounted 38A, 44A, and 50A rotary mowers are designed for use on International Cub Cadet Tractors having serial number 530,000 and higher, and 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 engaged and disengaged 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.

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

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 permit setting the cutting height to 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.



CAUTION

Read the Operator's Manual.

Learn to operate this machine SAFELY.

Be alert. Observe ALL Safety Practices.

Machines can be hazardous in the hands of an UNFAMILIAR, UNTRAINED or COMPLACENT operator.

Don't risk INJURY or DEATH.

MA-10034

WORK SAFELY – FOLLOW THESE RULES



CAUTION! This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow the precautionary instructions.

The discharge shield on the mower must be attached at all times while operating the mower.

Keep the machine in good operating condition and keep safety devices in place. Use guards or shields as instructed in Operator's Manual to avoid bodily injury.

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

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.

Never leave the tractor engine running unattended or permit it to be operated by persons not acquainted with its use and the rules for safe operation.

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

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.

Do not carry passengers or give rides, as serious injury could result.

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 causing serious injury.

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

It is recommended that the machine be stopped and inspected for damage after striking a foreign object and that any damage be repaired before restarting and operating the machine, as broken pieces could be thrown causing injury.

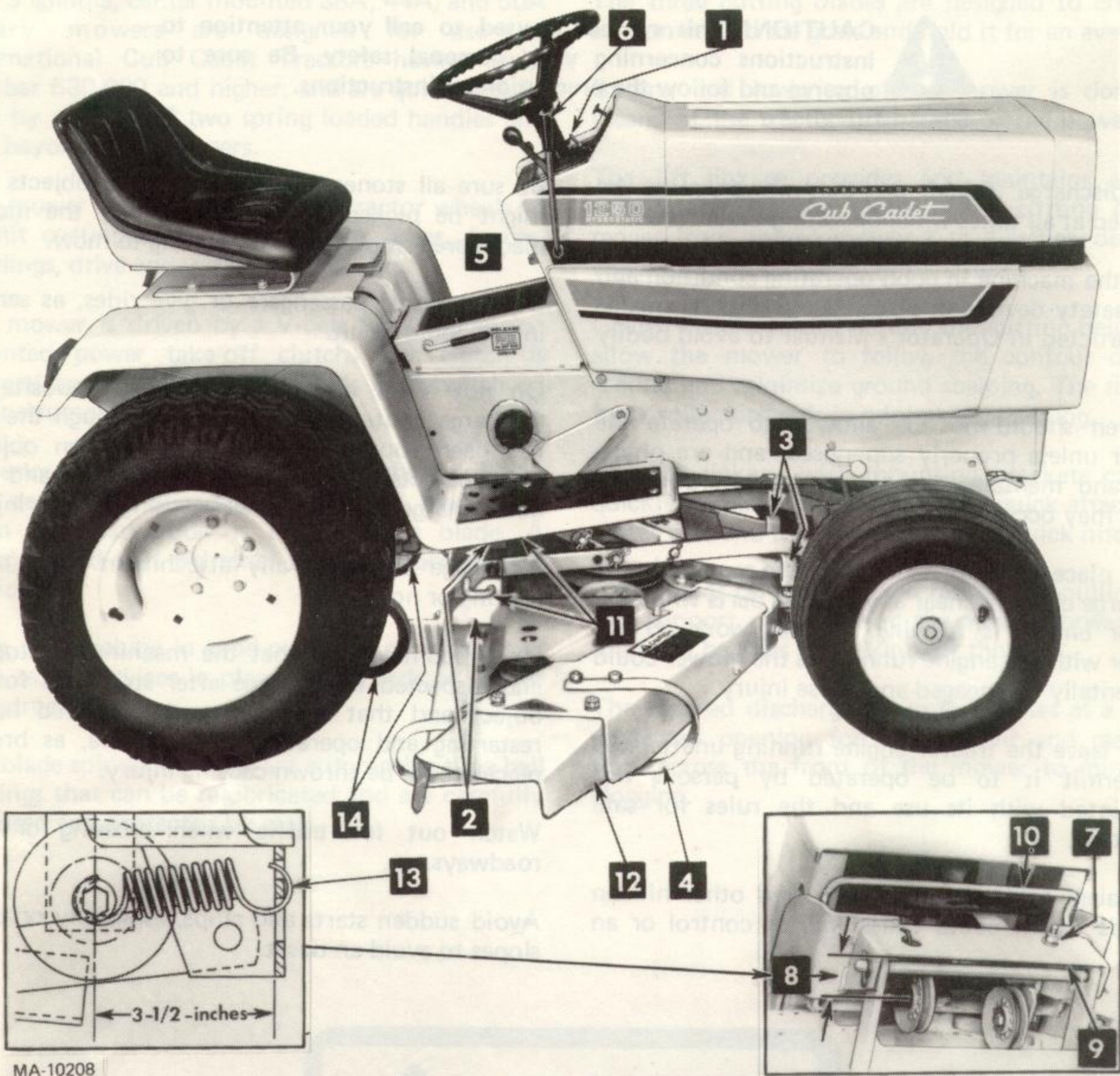
Watch out for traffic when crossing or near roadways.

Avoid sudden starts and stops, especially on steep slopes to avoid an upset.

OPERATING YOUR MOWER

1. Mower must be supported by the tractor.
2. Level the mower. See pages 5 and 6.
3. Engine Speed: Operate the engine at full throttle.
4. Ground Speed: Chose a ground speed that will satisfactorily handle the amount of material to be cut.

ADJUSTING AND OPERATING



MA-10208

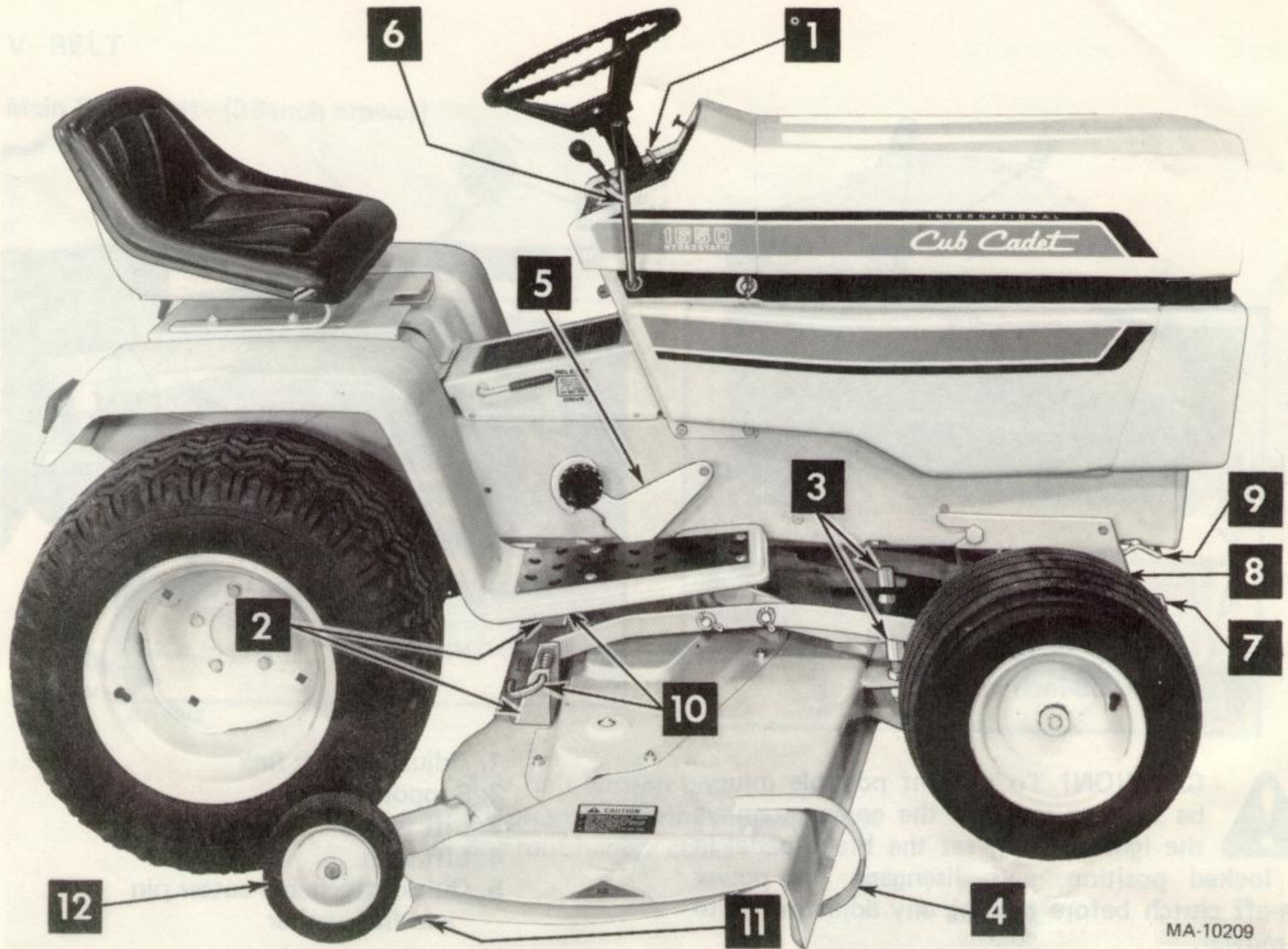
1. Power take-off clutch switch
2. Mower support brackets
3. Mower support clevises
4. Runners
5. Lift stop
6. Hydraulic lift handle
7. V-belt tension bolt

8. Extension spring measurement
9. Front hanger cover
10. Quick hitch
11. Support pins (spring loaded)
12. Deflector shield
13. Extension spring
14. Gauge wheels*

38-inch mower

*Optional Equipment

ADJUSTING AND OPERATING



MA-10209

1. Power take-off clutch switch
2. Mower support brackets
3. Mower support clevises
4. Runners
5. Lift stop
6. Hydraulic control lever

7. V-belt tension bolt
8. Idler spring tension release
9. Quick hitch
10. Support pins (spring loaded)
11. Deflector shield
13. Gauge wheels

44 and 50-inch mower

STARTING THE MOWER

With the engine running at idle speed, start the power take-off clutch. Advance the throttle to full throttle.

STOPPING THE MOWER

Disengage the power take-off clutch and reduce the engine speed.

LEVEL ADJUSTMENT

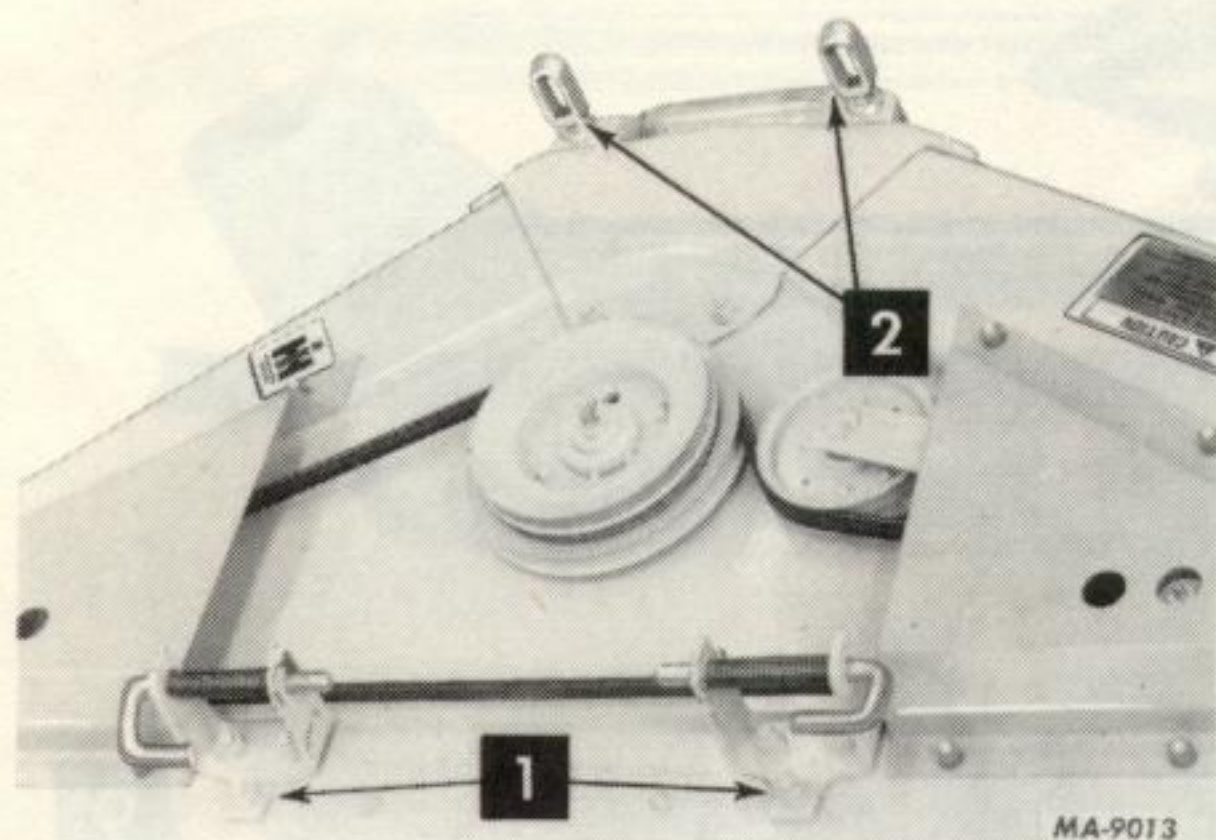
NOTE: Check the tires for proper inflation before making a level and height adjustment.



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

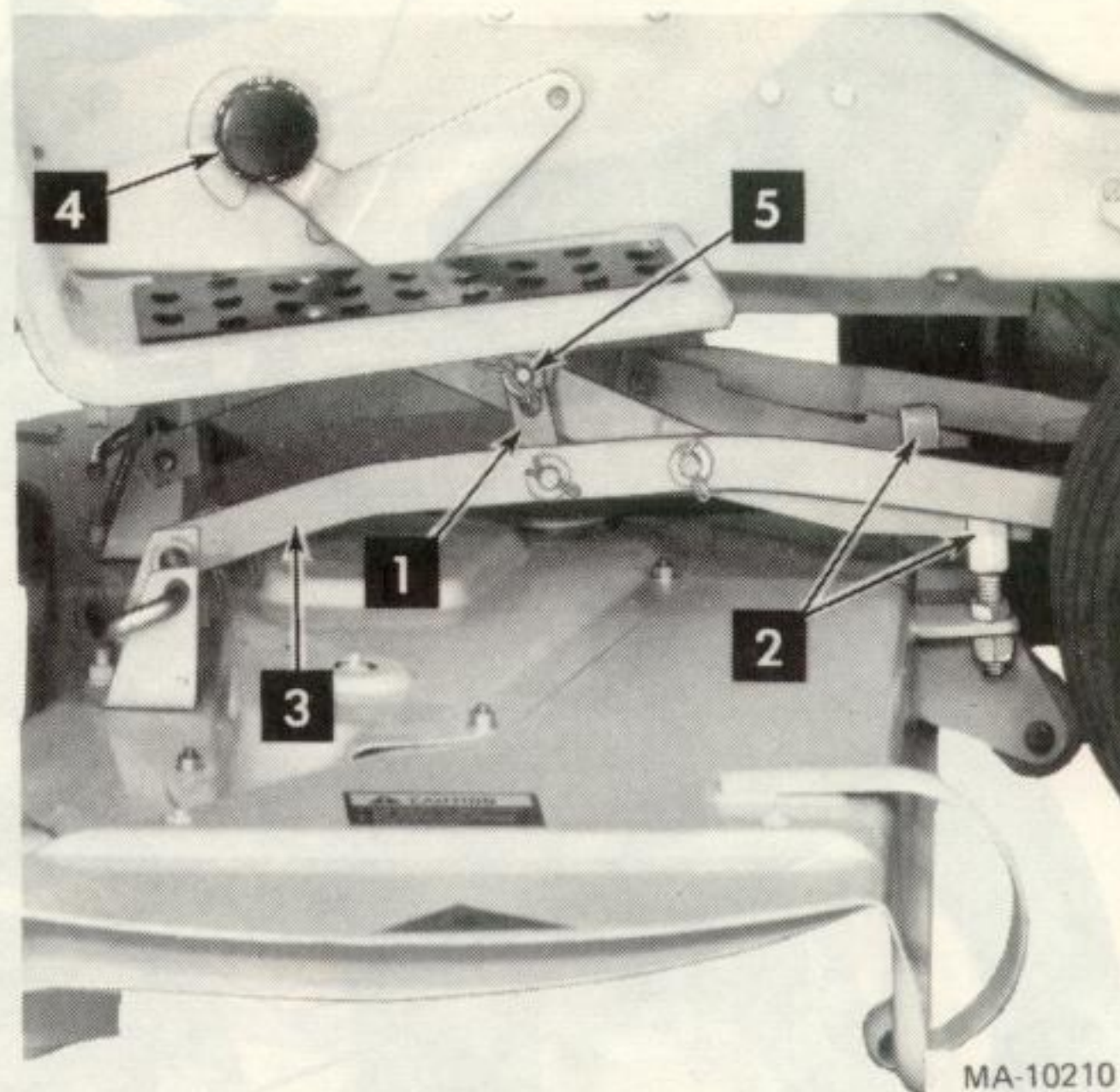
To adjust the mower for level, first place the tractor on a level surface, preferably a hard surface area such as a garage floor or sidewalk.

ADJUSTING AND OPERATING



1. Support brackets
2. Support clevises

38-inch mower



1. Adjustable lift link
2. Support clevises
3. Lift frame
4. Lift stop
5. Quick attachable cotter pin and flat washer

50-inch mower

CAUTION! To prevent possible injury, be sure to turn off the engine, remove the ignition key, set the brake pedal in the locked position, and disengage the power take-off clutch before making any adjustments to the mower.

Set the lift handle stop for the desired mowing height. To set the lift handle stop, raise the mower to the desired cutting height and adjust the stop so it contacts the lift handle. Then tighten the knob securely. The mower can then be raised to cross an obstacle, etc., and lowered, maintaining the preset height.

Side to Side

Lower the mower to the ground and remove the quick attachable cotter pin and flat washer securing the right lift link to the right tractor lift arm. Pitch the lift link back to clear the pin and turn the lift link clockwise or counterclockwise so the height from the top of the mower housing to the surface is equal on each side.

NOTE: (38-inch mower only) If correct side to side adjustment cannot be obtained after adjusting the lift link, proceed as follows:

Lower the mower almost to the surface making sure the gauge wheels do not touch. Add 13/32 x 13/16 x .065-inch flat washers, as many as required under the left or right mower support bracket.

Front to Rear

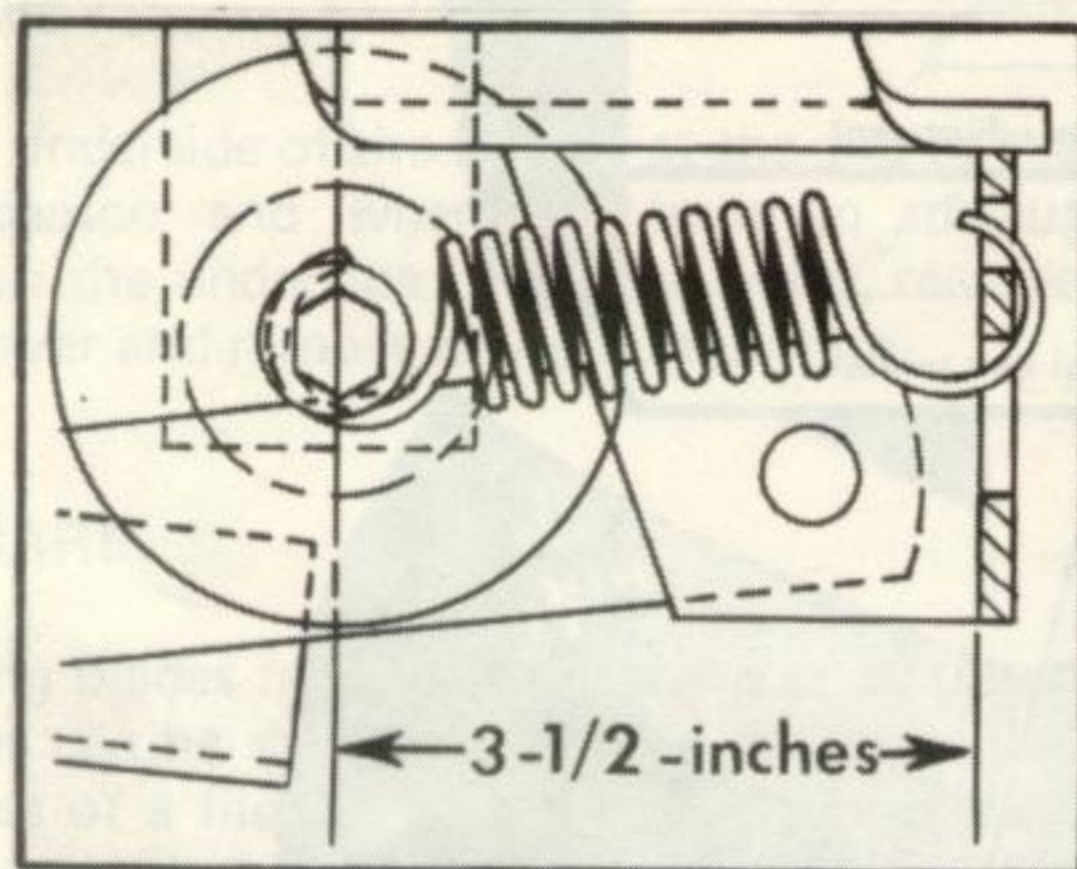
Lower the mower to the preset cutting height. Rotate the center and one outer blade so they are parallel and pointing straight to the front and rear. Then adjust the two support clevises at the front of the mower so the front edge of the center blade is level with the back edge of the outer blade.

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

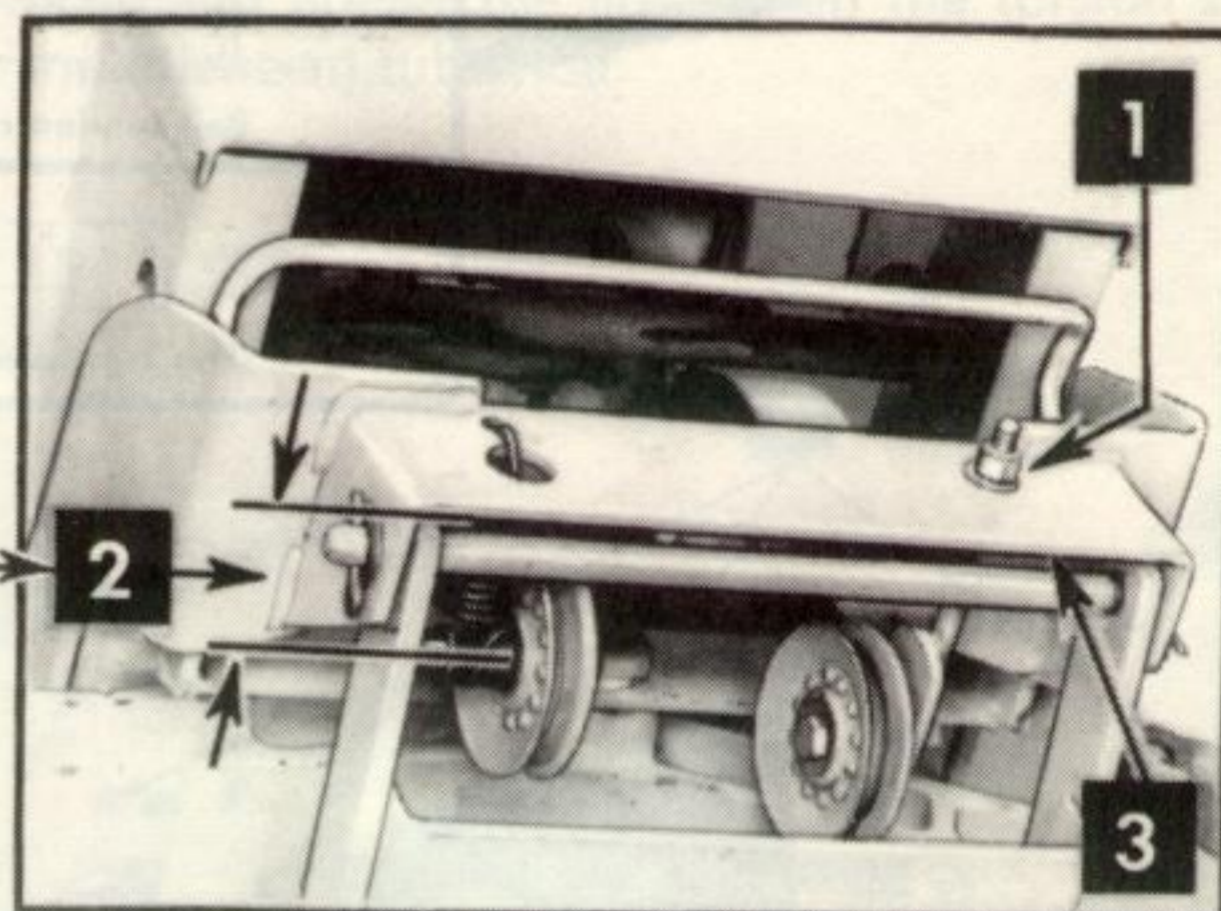
ADJUSTING AND OPERATING

V-BELT

Main Drive Belt--(38-inch mower)



MA-9015



1. V-belt tension bolt
2. Extension spring measurement
3. Front hanger cover

The main drive V-belt is adjusted for tension by the V-belt tension bolt. Tighten the locknut to increase belt tension and loosen the locknut to decrease the belt tension.

When installing a new belt, the initial tension is obtained by adjusting the bolt so the distance measure approximately 3-1/2-inches from the center of the pulley (at the extension spring) to the inner face of the front hanger cover.

The main drive belt is properly tensioned when the extension spring coils are spread approximately 1/16-inch.

NOTE: After the first half hour of mowing, readjust bolt to the 3-1/2-inch dimension.

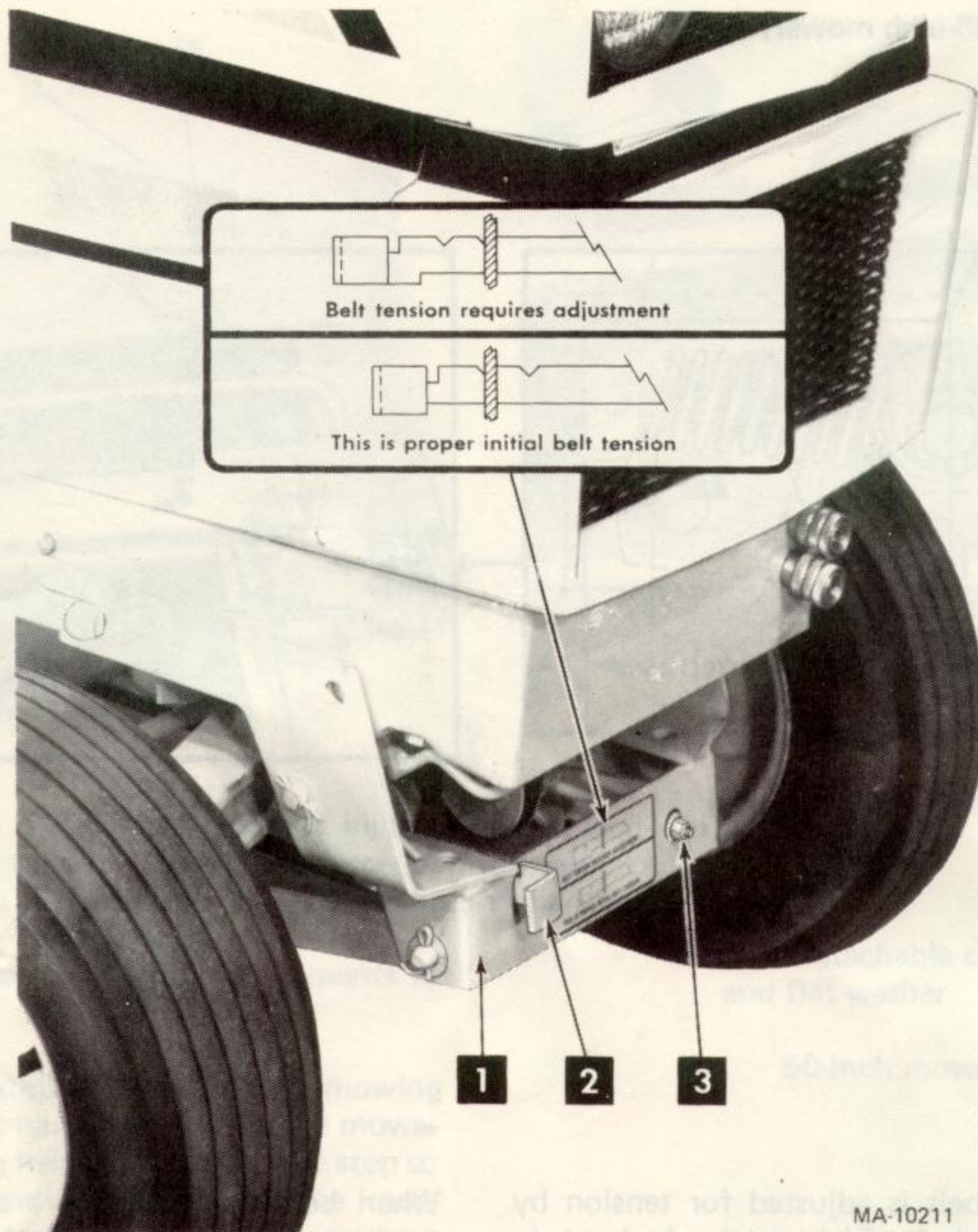
When belt slippage occurs or spring coils touch, readjust to 1/16-inch spread. Under no condition should the tension adjustment distance be allowed to fall under 3-1/8-inches.

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, loosen the V-belt tension bolt, raise the mower and disconnect the power take-off clutch lever rod. **NOTE:** Refer to the Front Power Take-off section of the Tractor Operator's Manual. This will provide sufficient clearance between the wear and thrust buttons on the clutch to allow V-belt to pass through. Readjust V-belt tension as previously described.

ADJUSTING AND OPERATING

(44-inch and 50-inch mowers)



1. Front cover
2. Idler ratchet
3. V-belt tension bolt

The main drive V-belt is properly tensioned when the idler ratchet is positioned as shown on the decal on the front cover of the lift frame.

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.

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, disengage the idler ratchet to take the tension off the belt. Readjust the V-belt tension as previously described.

MA-10211

ADJUSTING AND OPERATING

HEIGHT OF CUT

Set the lift stop for the desired height of cut.

Refer to the Tractor Operator's Manual with respect to the type of lift system on the tractor.

CLEANING

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.

BLADE CARE

The cutting blades must be kept sharp at all times. The blades can be sharpened on the mower with a few strokes of a file or they can be removed from the mower and sharpened on a grinding wheel. **NOTE:** Sharpen ends evenly so that the blades remain balanced. However, if the cutting edge of a blade is within 3/8-inch of the wind wing, it is recommended that new blades be installed. New blades are available at your IH dealer.



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

When removing the 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.

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

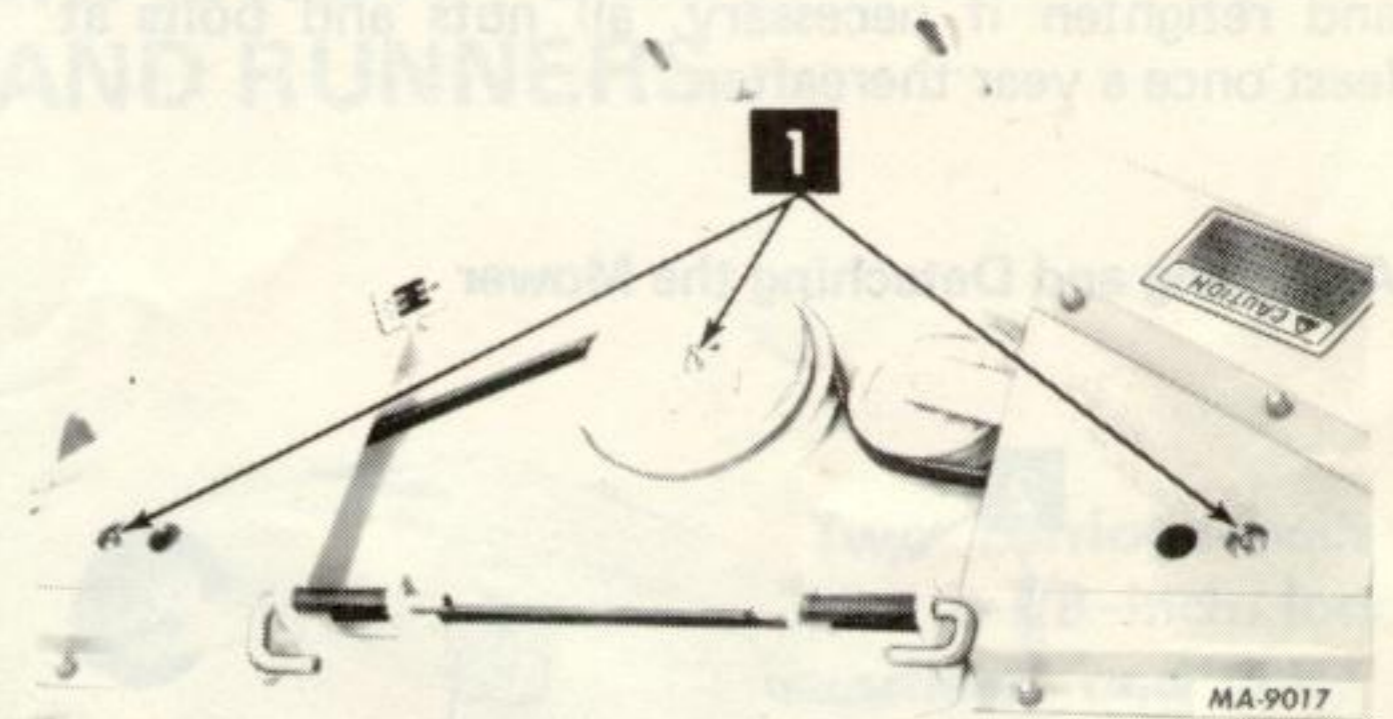
When replacing the blades, be sure they are assembled so the cutting edges are in the direction of rotation with the wind wings pointed upward and the washers assembled on top and bottom of blades, and tighten securely.

NOTE: If the spindle nuts are removed for any reason, they should be retightened to 55 to 60 foot-pounds torque when replaced.

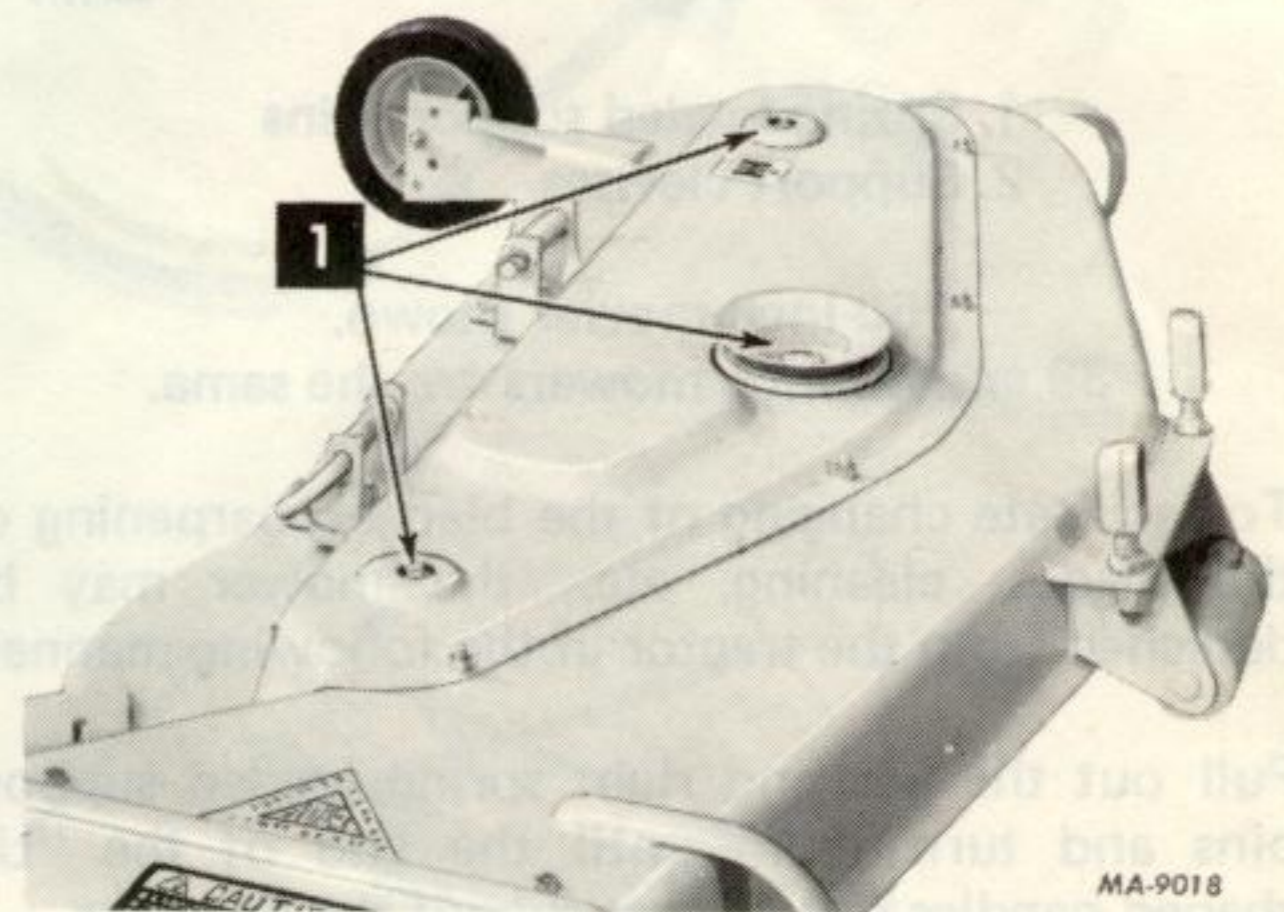
LUBRICATION

After every 200 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.

Also, before winter storage, remove idler pivot shaft and grease the area when the torsion spring and idler arm tube ride.



1. Spindle bearings
38-inch mower.



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

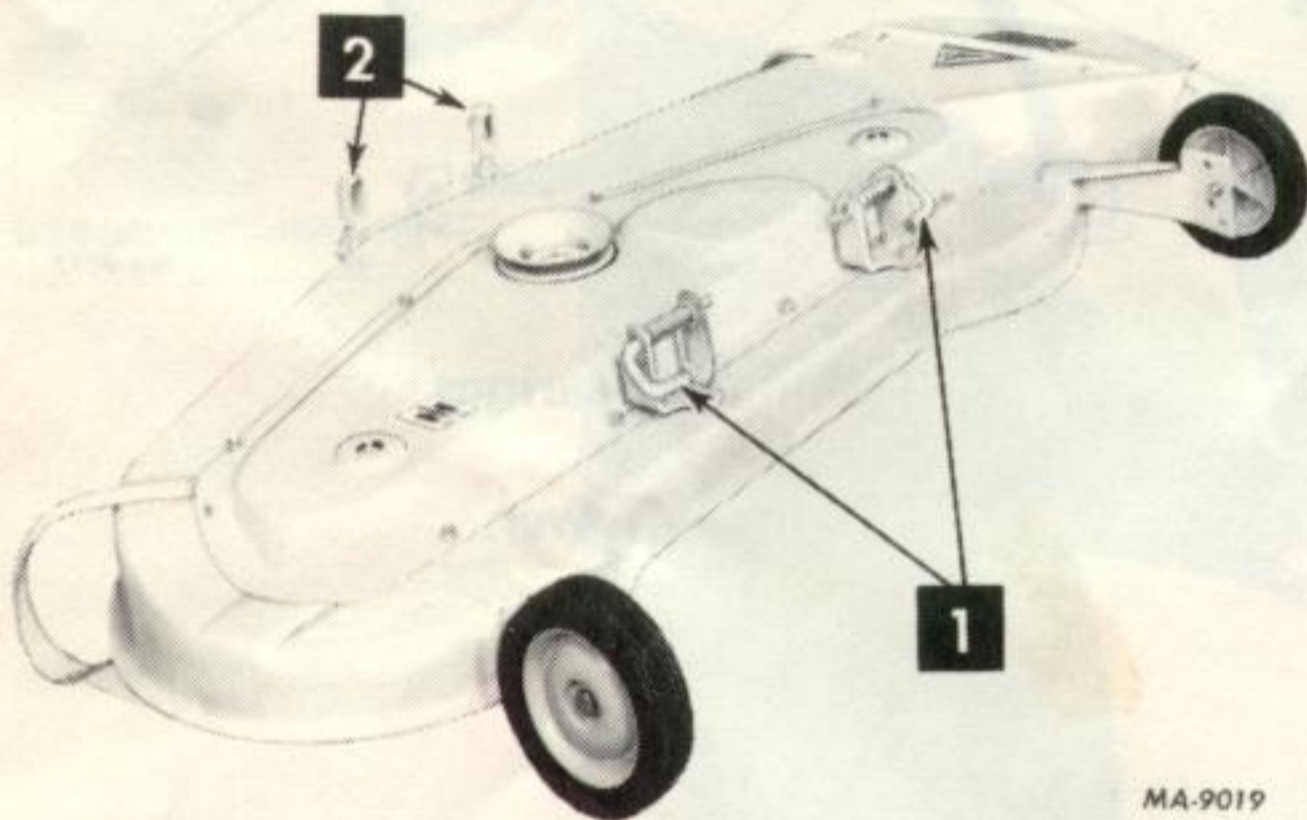
ADJUSTING AND OPERATING

GENERAL

After first 1/2 hour and every 4 hours thereafter of running, check the V-belt tension and adjust if necessary.

After the first 10 hours of operation check and retighten, if necessary, all nuts and bolts on the machine, paying particular attention to the hex. nuts, securing blades to the spindles and the cap screws or hex. nuts at the top of the spindle. These nuts and bolts should be tightened securely. Check and retighten if necessary, all nuts and bolts at least once a year thereafter.

Attaching and Detaching the Mower



1. Spring loaded support pins
2. Support clevises

50-inch mower shown.
38 and 44-inch mowers are the same.

To facilitate changing of the blades, sharpening of the blades, cleaning, etc., the mower may be detached from the tractor in the following manner:

Pull out the left and right spring loaded support pins and turn them until the end of the "U" shaped handles rest against side of the brackets.

Move mower forward so left and right support clevises are free of the front pivot links and lower the mower to the ground. Remove the V-belt from the center pulley.



CAUTION! To prevent injury keep the machine in good operating condition and keep safety devices in place. Use guards or shields as instructed in Operator's Manual.

Raise the lift linkage for clearance and slide the mower out from under the tractor on the right side. To aid in removing the mower, turn the tractor front wheels to the right.

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.

To attach the mower to the tractor, reverse the above procedure.

Install the belt before attaching mower to tractor.

Readjust the tension of the main drive belt as previously described under V-Belt (depending on the size mower on the tractor).

MOWING

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 it will give a scalping effect and invite weak growth.



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.

SETTING UP

Remove all wires. Sort out all hardware by sizes and types in a convenient and orderly manner.

Bolts must be used in the holes in which they are found, or in the parts to which they are attached unless otherwise shown.

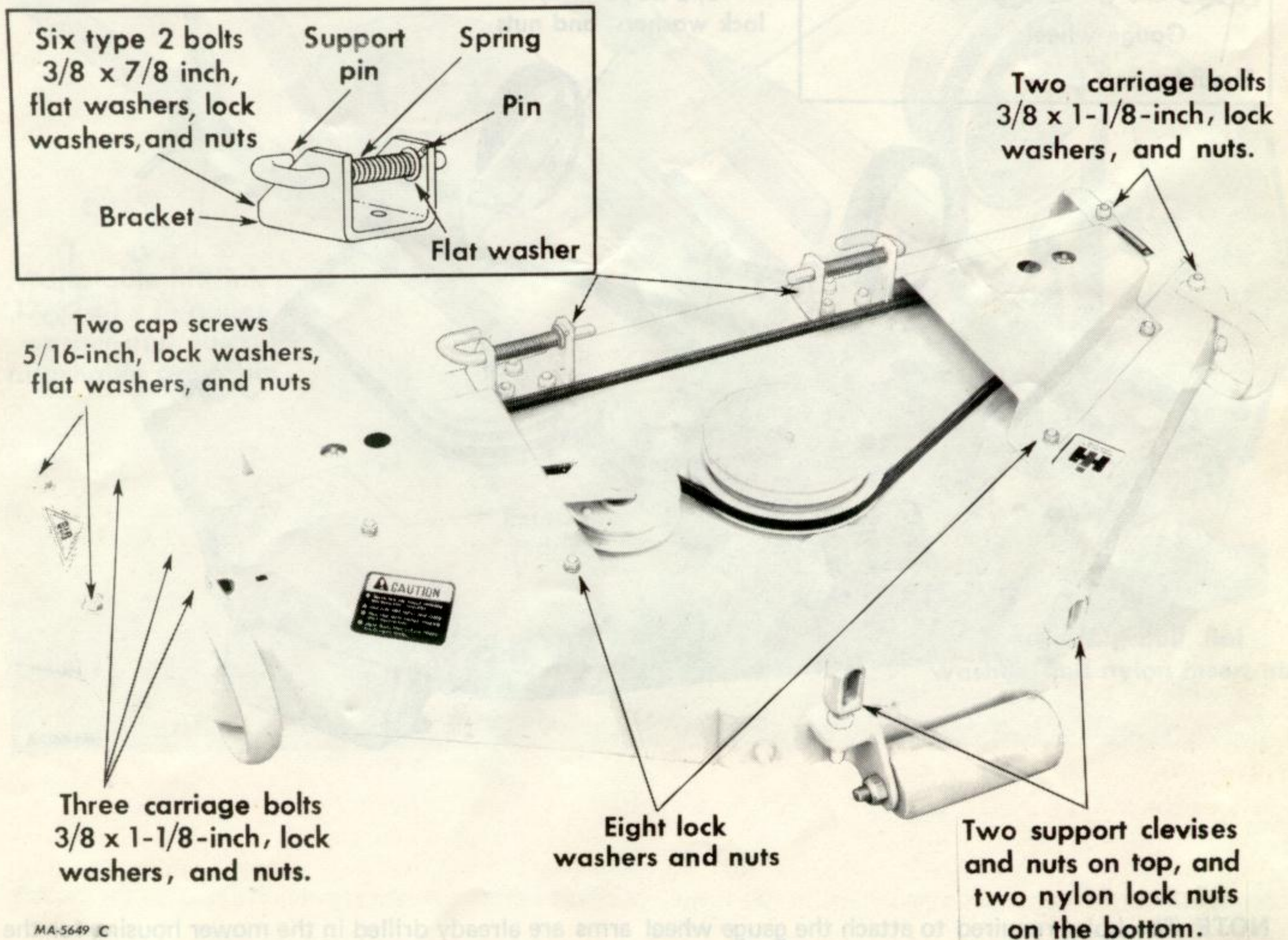
Lubricate all working parts as you proceed, and see that they work freely.

Whenever the terms "left" and "right" are use, it should be understood to mean from a position behind and facing the machine.

Bolts furnished with the mower are identified by three radial lines on the heads. Bolts without radial lines are type 1.

STEP 1. SUPPORT CLEVISES, BRACKETS, BELT SHIELDS, DISCHARGE SHIELD, AND RUNNERS

38-INCH MOWER



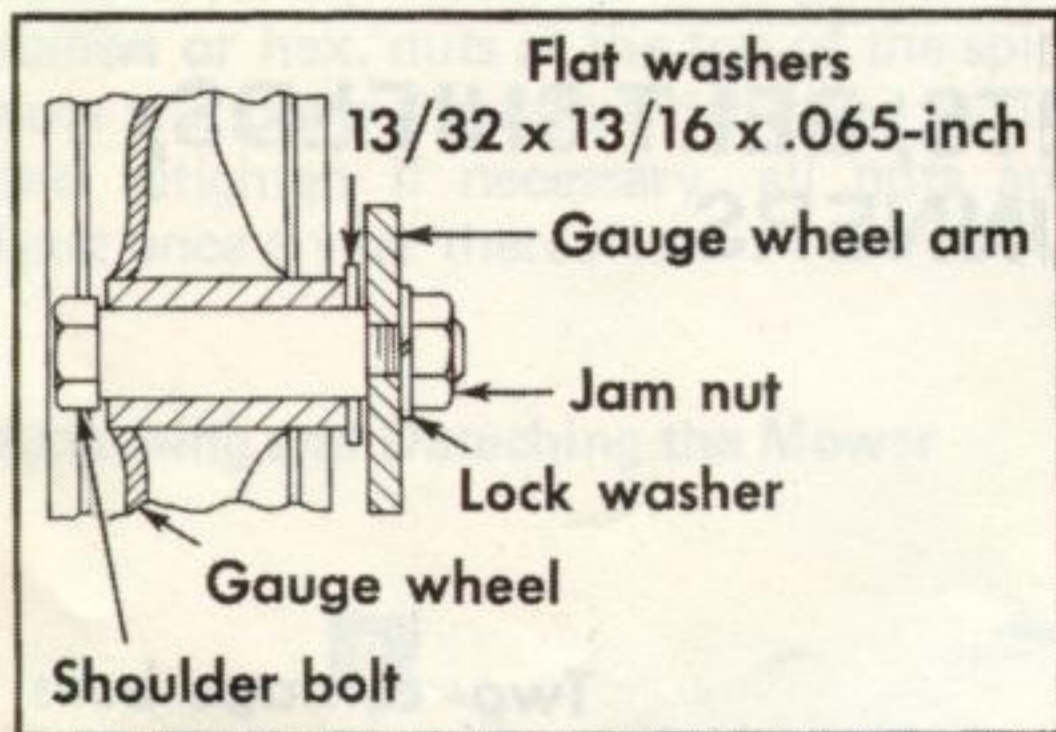
MA-5649 C

NOTE: Insert discharge shield into discharge opening of the mower as shown. Be sure all guards and shields are properly installed before operating the mower.

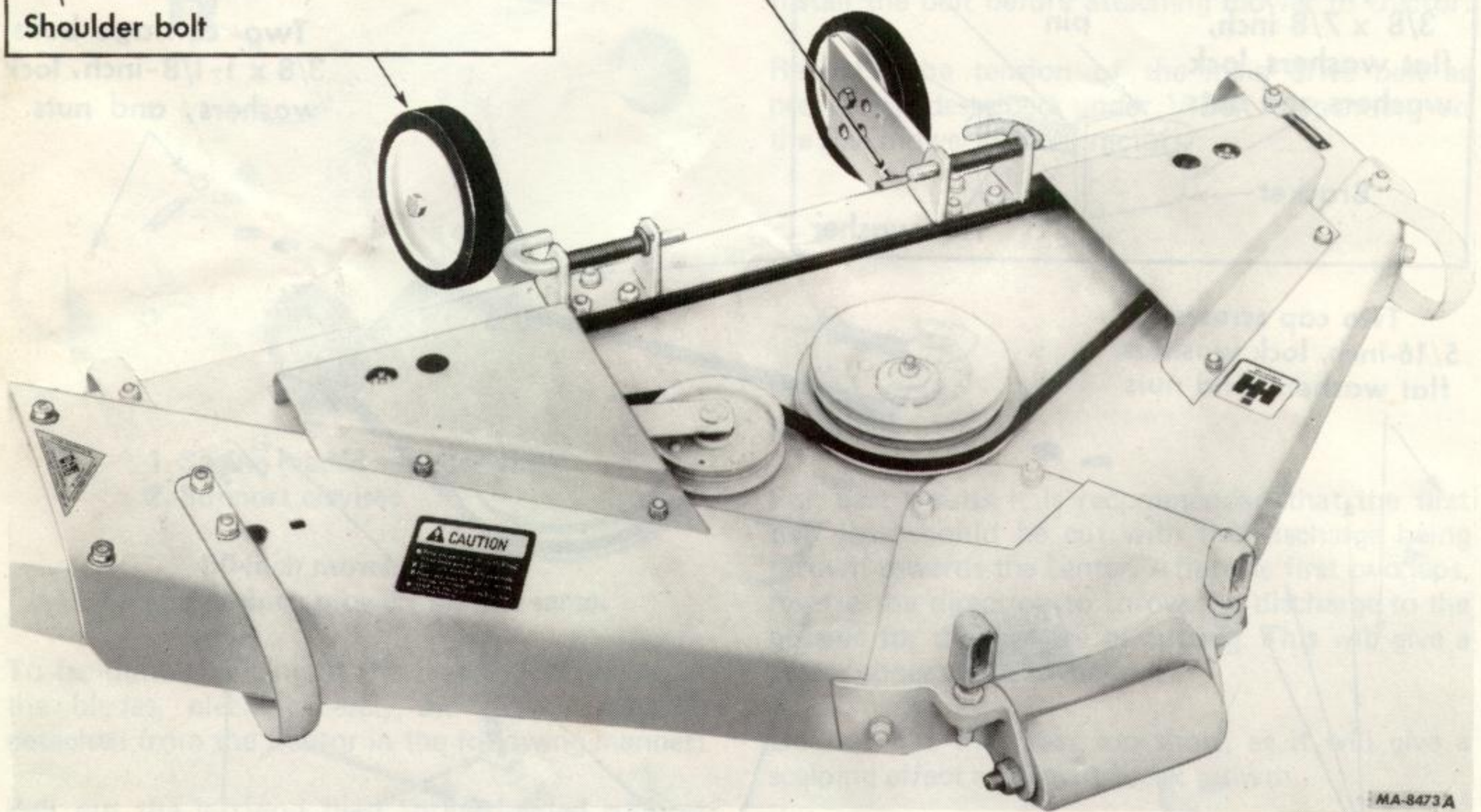
SETTING UP

STEP 2. GAUGE WHEEL ARMS AND GAUGE WHEELS

(Optional Equipment)



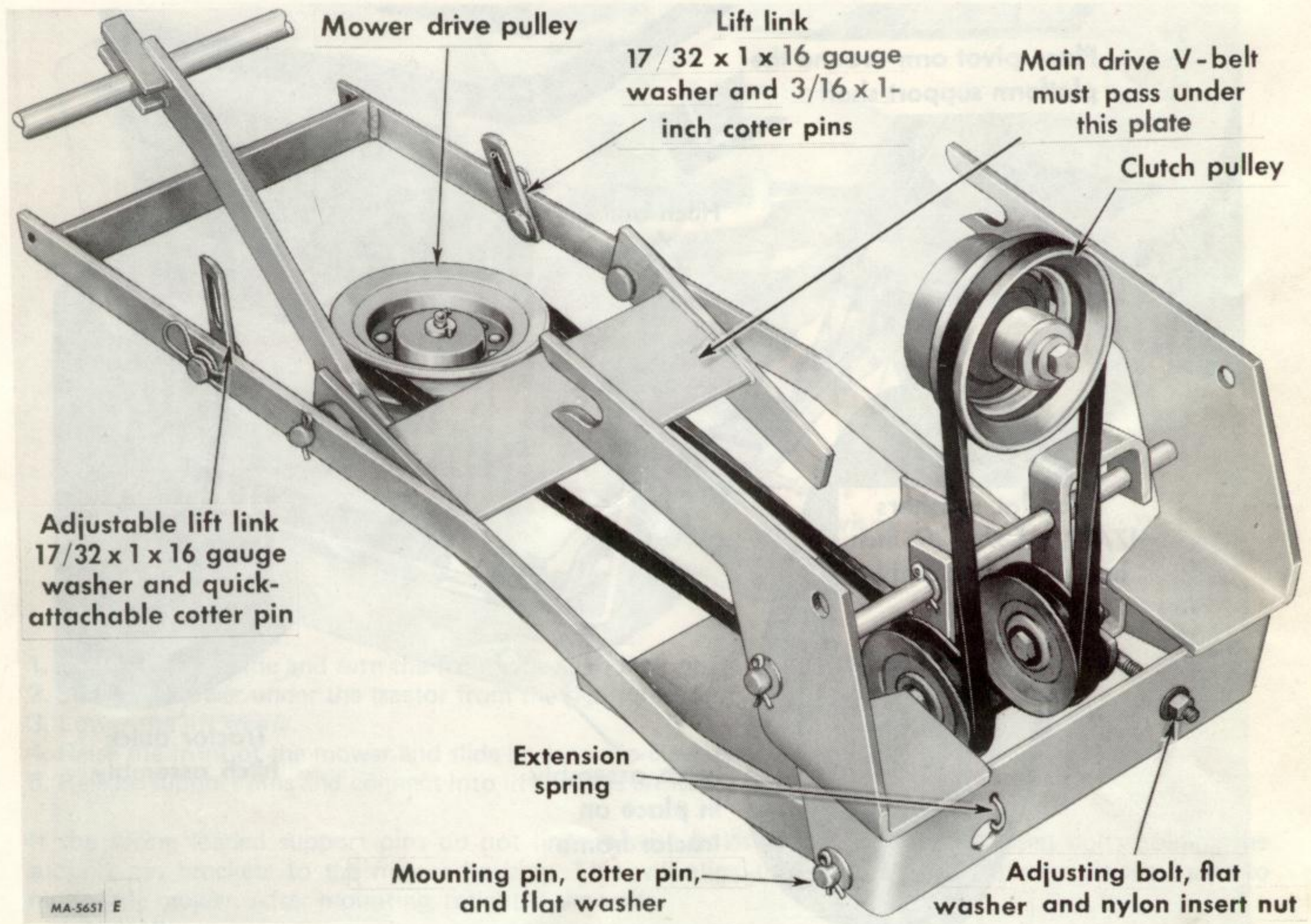
Four cap screws
3/8 x 7/8-inch,
lock washers, and nuts



NOTE: The holes required to attach the gauge wheel arms are already drilled in the mower housing for the 38-inch mower. Attach the arms to the mower with the heads of the cap screws on the inside of the mower housing.

SETTING UP

STEP 3. LIFT FRAME AND FRONT HANGER ASSEMBLY

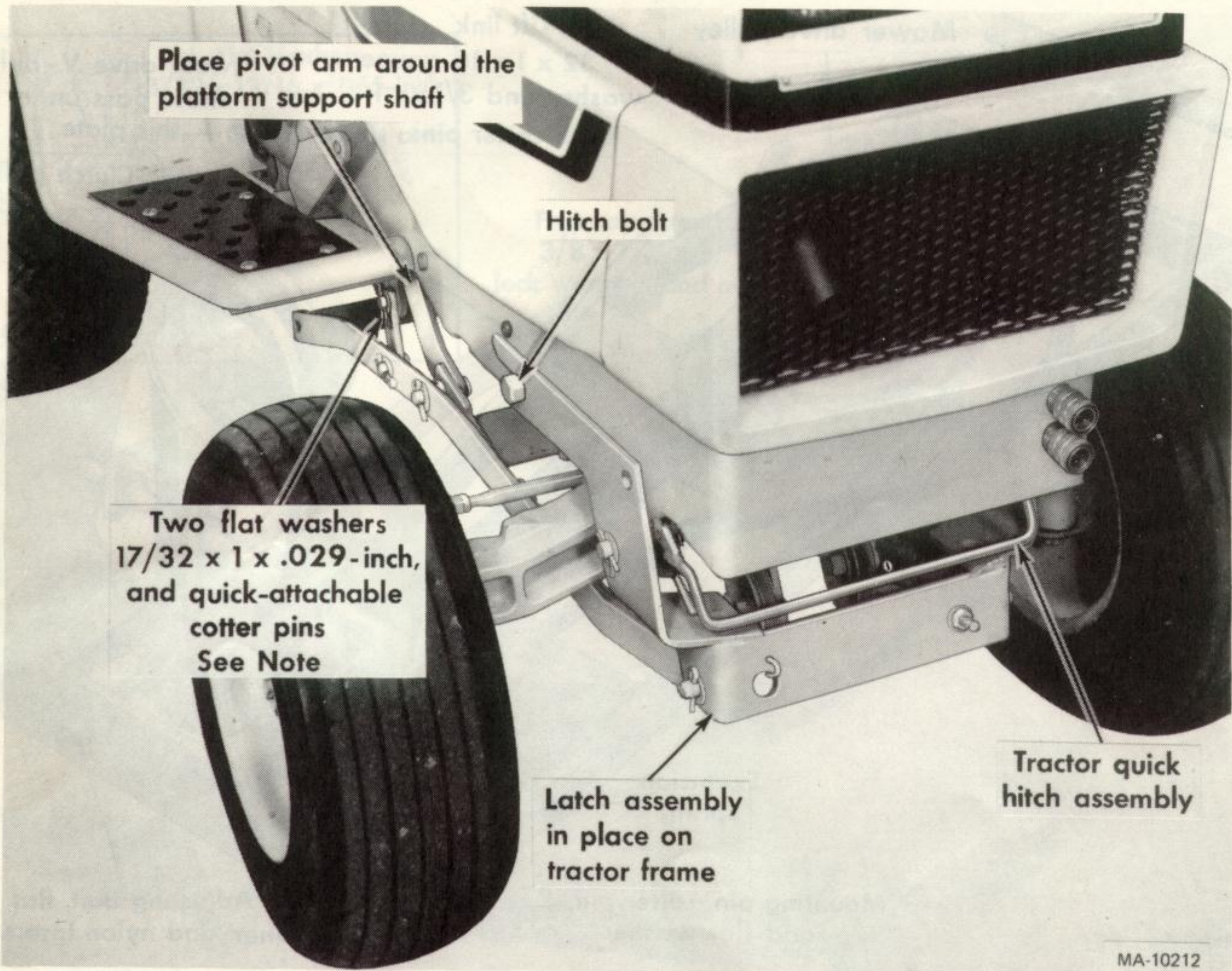


Refer to the ADJUSTING AND OPERATING under "Level Adjustment", "Height of Cut", and "V-Belt Adjustment" for the necessary adjustments.

NOTE: Set the tractor lift mechanism in the lowest position before connecting the lift links to the tractor lift arms.
Check mower for correct level. If more than 1/4-inch difference (side to side) correct. Refer to leveling instructions.

SETTING UP

STEP 4. ATTACHING LIFT FRAME ASSEMBLY TO TRACTOR

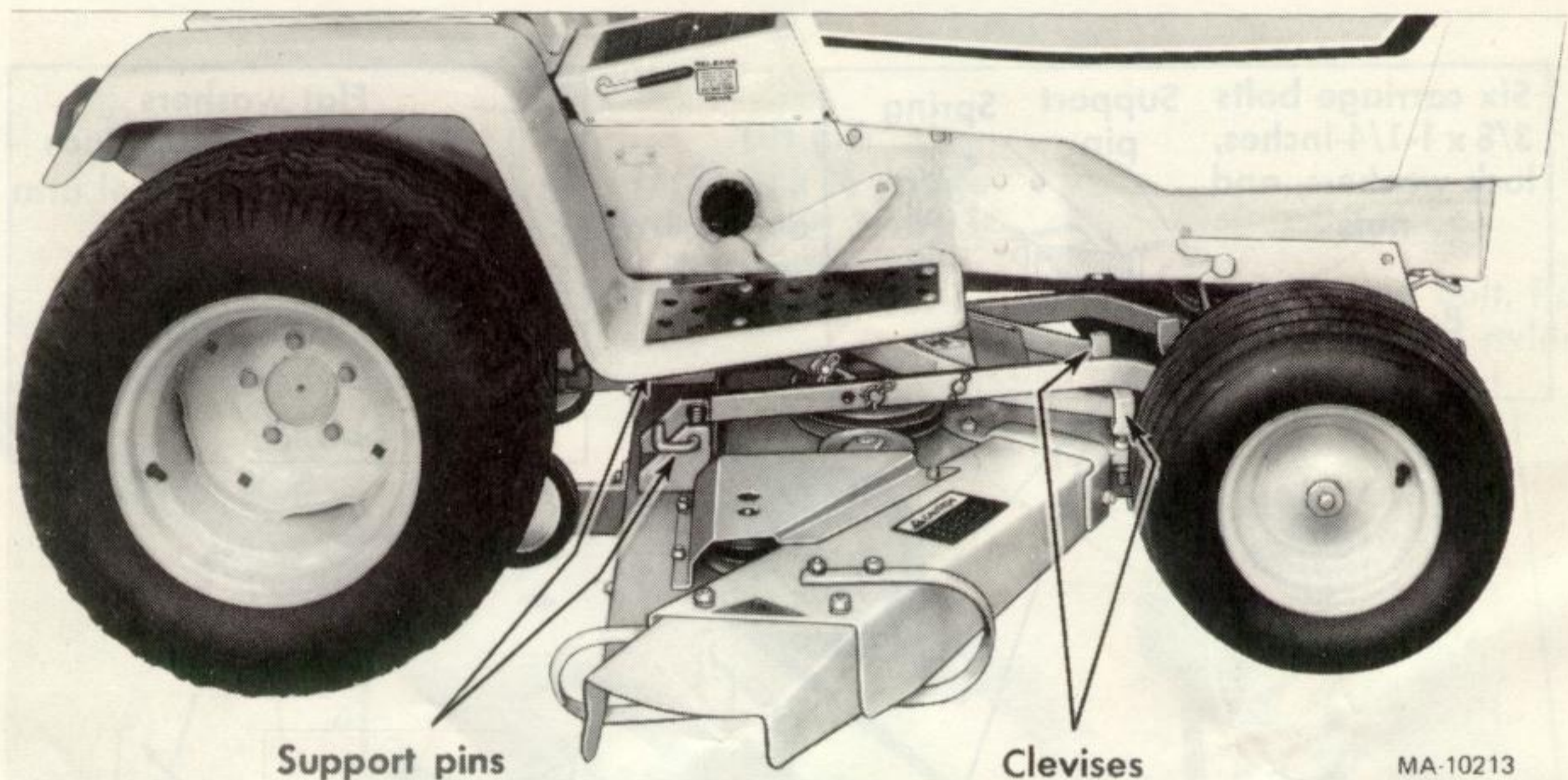


NOTE: Set the tractor lift mechanism in the lowest position before connecting the lift links to the tractor lift arms.

Check mower for correct level. If more than 1/4-inch difference, (side to side) correct. Refer to leveling instructions.

SETTING UP

STEP 5. ATTACHING MOWER TO LIFT FRAME ASSEMBLY ON TRACTOR



MA-10213

1. Raise the lift frame and turn the front wheels to the right.
2. Slide the mower under the tractor from the right until centered.
3. Lower the lift frame.
4. Raise the front of the mower and slide back to slip clevises over pivot links.
5. Release support pins and connect into lift linkage arms.

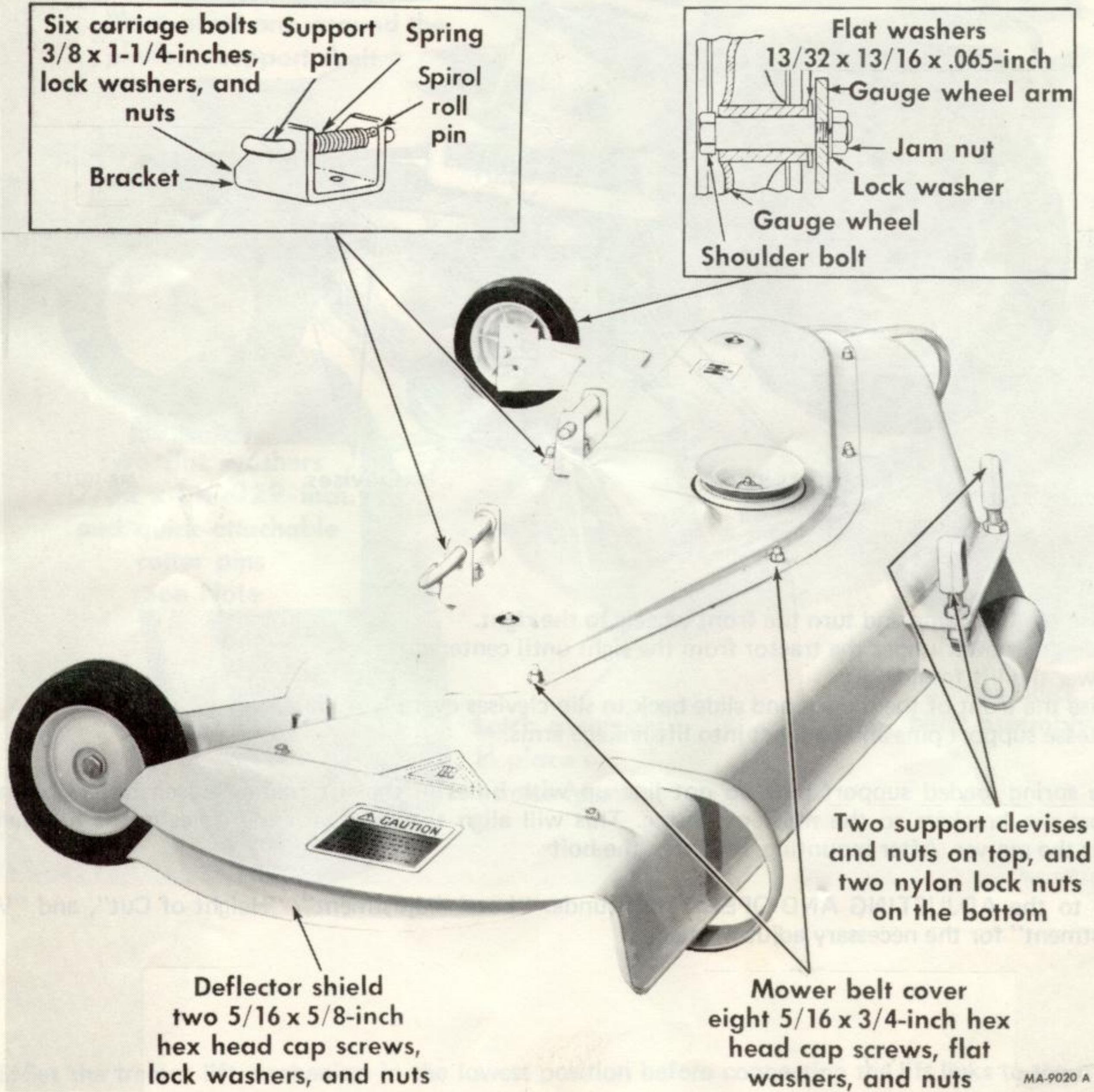
If the spring loaded support pins do not line up with holes in the lift frame, loosen bolts holding the support pin brackets to the mower housing. This will align the pins with the holes in the lift frame to mount the mower. After mounting, retighten the bolts.

Refer to the ADJUSTING AND OPERATING under "Level Adjustment", "Height of Cut", and "V-Belt Adjustment" for the necessary adjustments.

SETTING UP

STEP 1. GAUGE WHEELS, BRACKETS, DEFLECTOR SHIELD, MOWER BELT COVER, AND SUPPORT CLEVISES

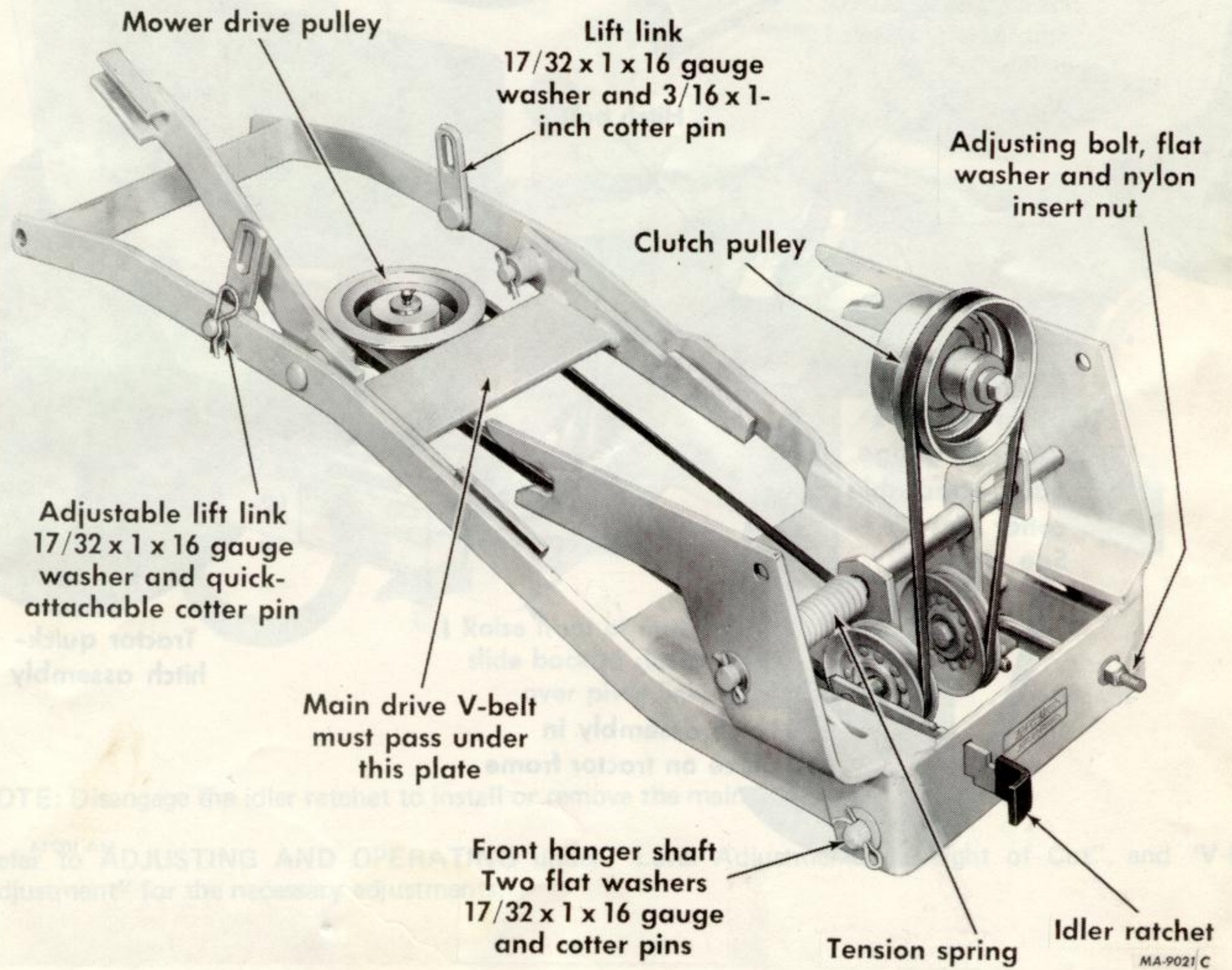
44 AND 50-INCH MOWER (50-INCH SHOWN)



NOTE: The 44-inch mower belt cover requires only seven cap screws.

SETTING UP

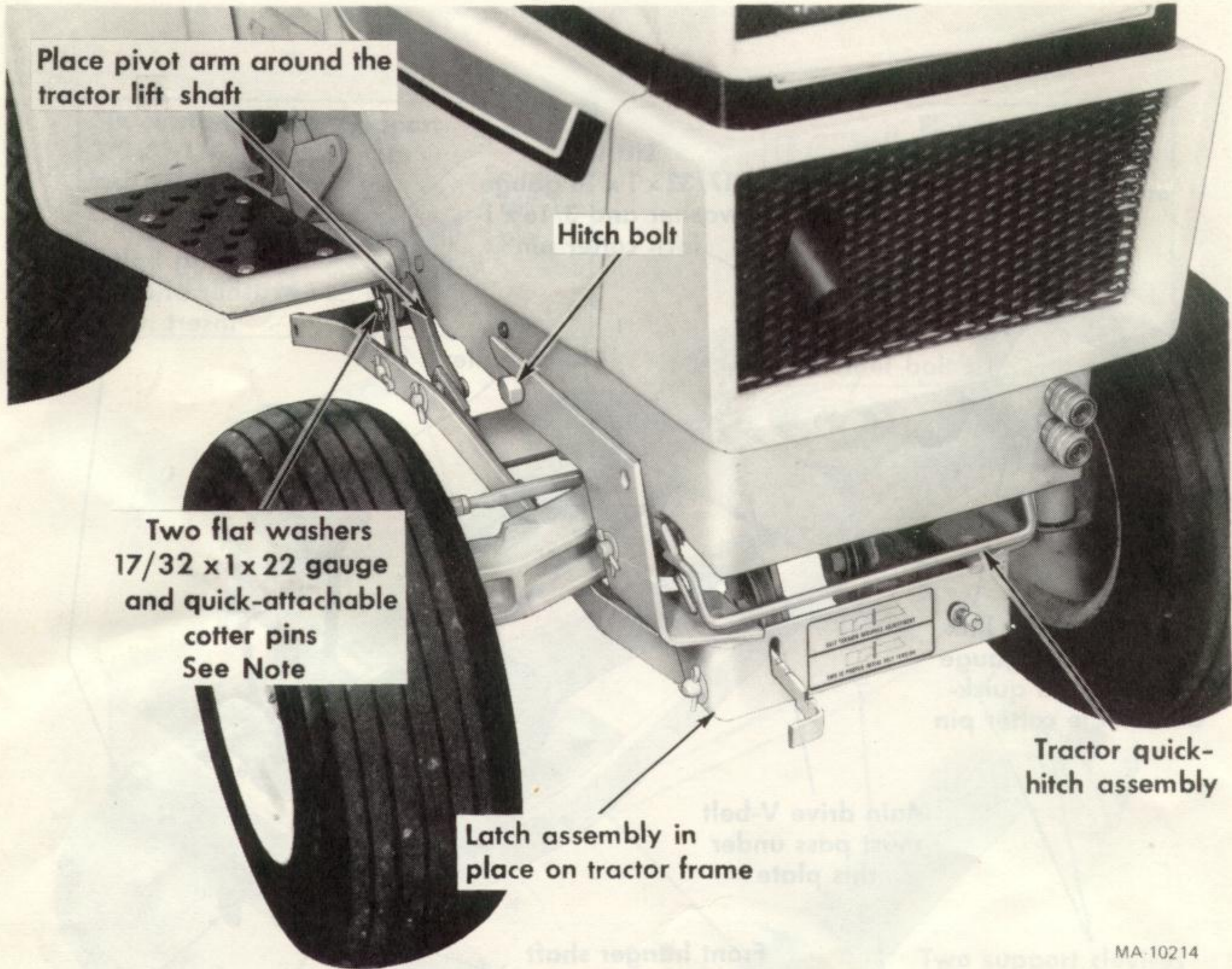
STEP 2. LIFT FRAME AND FRONT HANGER ASSEMBLY



SETTING UP

STEP 3. ATTACHING LIFT FRAME ASSEMBLY TO TRACTOR SHIELD, MOWER BELT COVER, AND SUPPORT CLEVISES

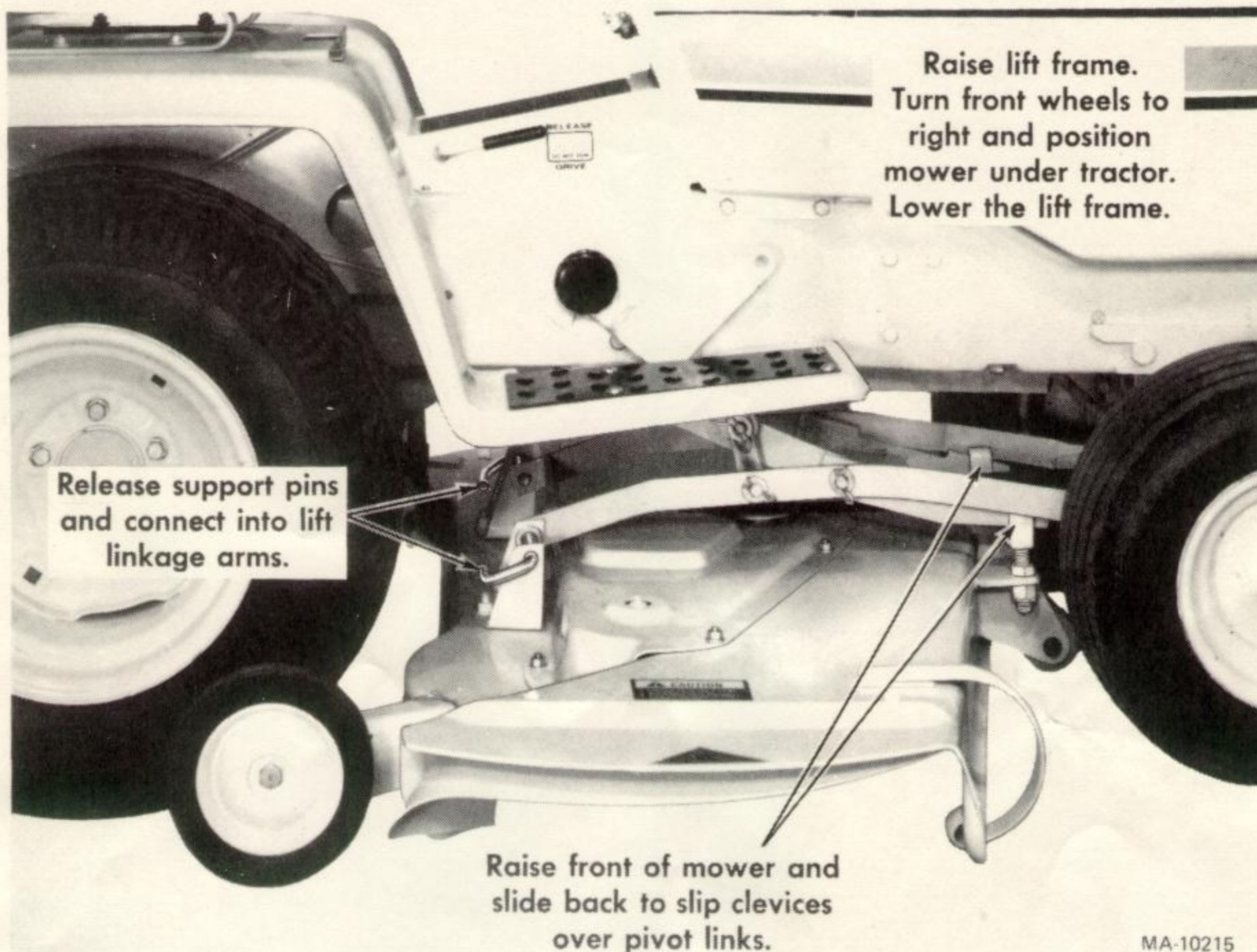
44 AND 50-INCH MOWER (50-INCH SHOWN)



MA-10214

NOTE: Set the tractor lift in the lowest position before connecting the lift links to the tractor lift arms.

STEP 4. ATTACHING MOWER TO LIFT FRAME ASSEMBLY ON TRACTOR

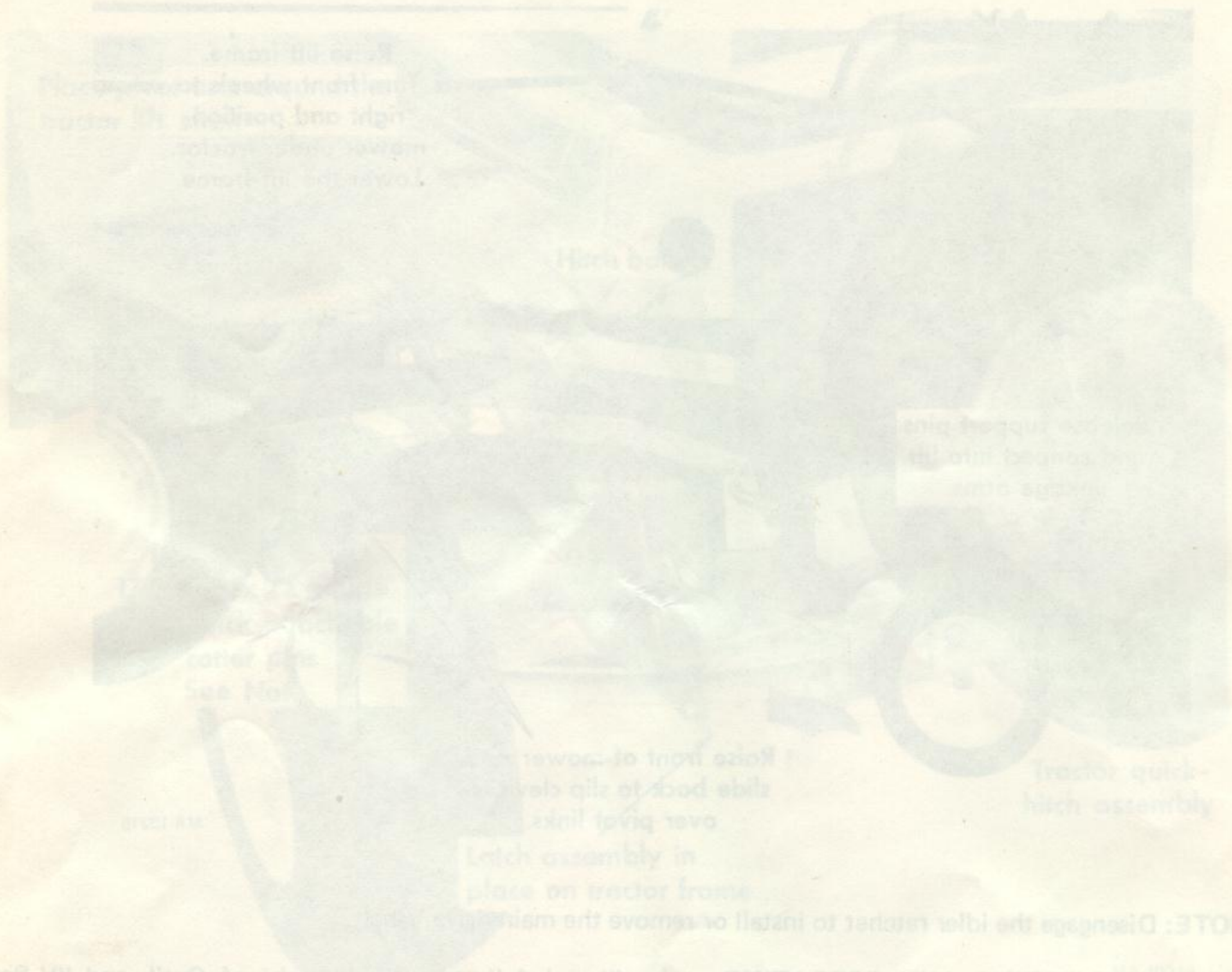


NOTE: Disengage the idler ratchet to install or remove the main drive V-belt.

Refer to ADJUSTING AND OPERATING under "Level Adjustment", "Height of Cut", and "V-Belt Adjustment" for the necessary adjustments.

MEMORANDA

STEP 3 ATTACHING MOWER TO LIFT FRAME
ASSEMBLY ON TRACTOR



NOTE: Disengage the PTO to install or remove the mower deck.
Refer to ADJUSTING AND OPERATING under "Level Adjustment," "Height of Cut," and "V-Belt Adjustment" for the necessary adjustments.

NOTE: Set the tractor lift in the lowest position before connecting the lift links to the tractor lift arms.

Accidents can be prevented with your help

No accident-prevention program can be successful without the wholehearted co-operation of the person who is directly responsible for the operation of equipment.

To read accident reports from all over the country is to be convinced that a large number of accidents can be prevented only by the operator anticipating the result before the accident is caused and doing something about it. No power-driven equipment, whether it be transportation or processing, whether it be on the highway, in the harvest field or in the

industrial plant, can be safer than the man who is at the controls. If accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

It is true that the designer, the manufacturer, the safety engineer can help; and they will help, but their combined efforts can be wiped out by a single careless act of the operator.

It is said that "*the best kind of a safety device is a careful operator.*" We ask you to be that kind of an operator.

Accidents can be prevented with your help

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