



OPERATOR'S MANUAL

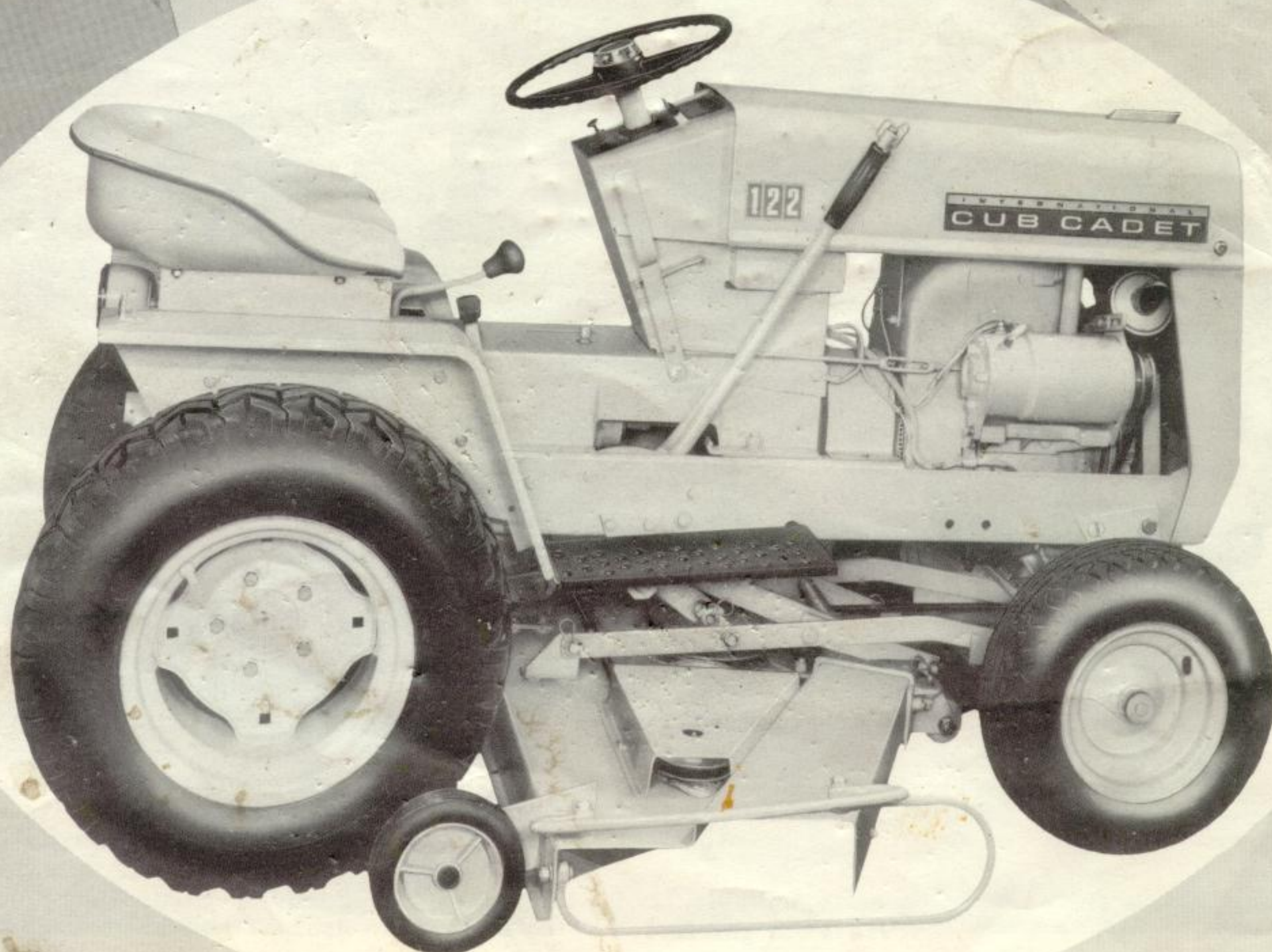
SETTING UP INSTRUCTIONS

INTERNATIONAL[®]

Rotary Mowers

(38-, 42-, and 48-inch, 3-spindle)

**OPERATION
MAINTENANCE
LUBRICATION**



To The Owner

Your new rotary mower is designed to meet today's exacting operating requirements. It is built for efficient, economical performance, ease of operation, and with the ability to adjust to various conditions. These features lighten your work and shorten your hours on the job.

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

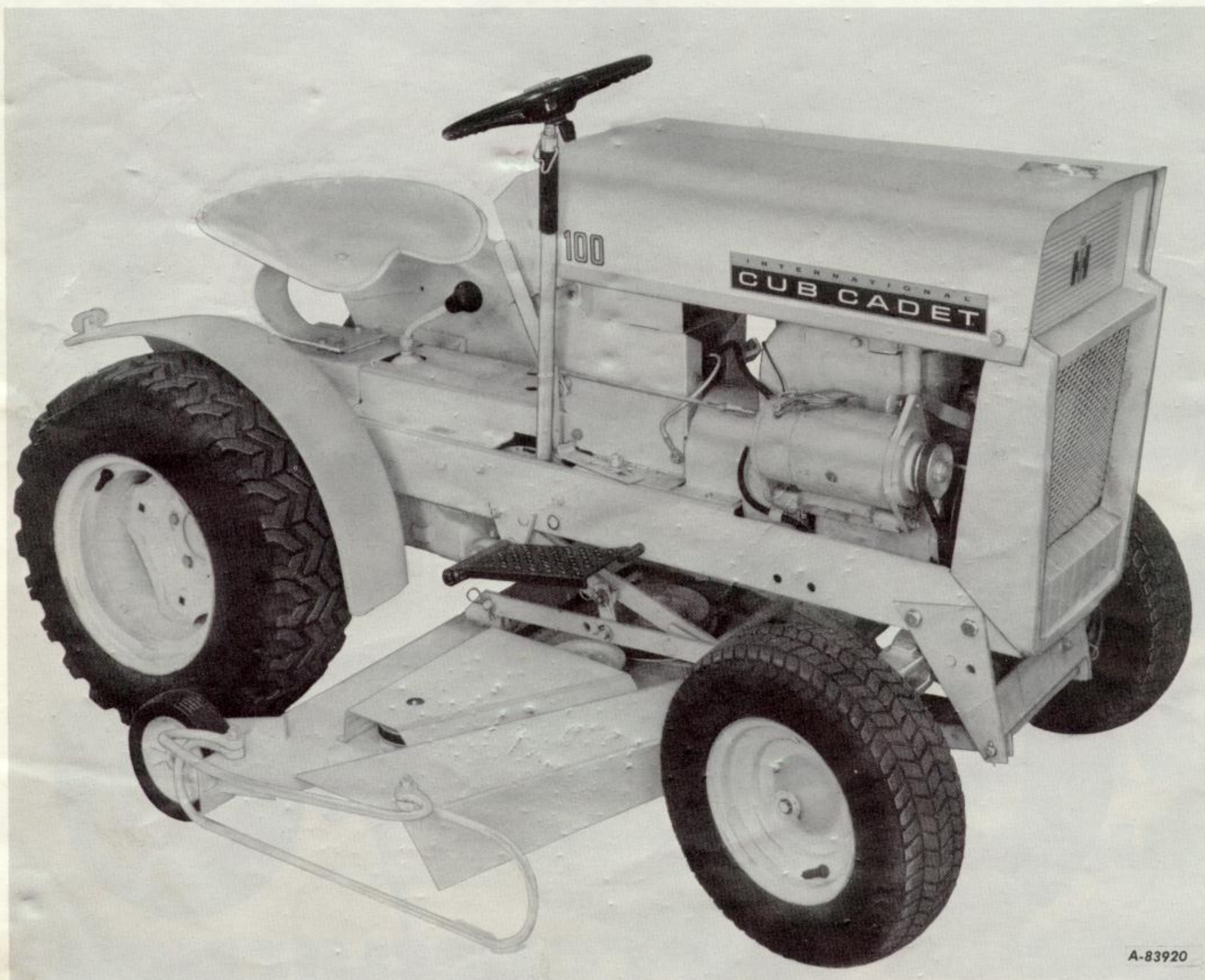
Be sure to read the instructions for Adjusting and Operating in this manual. Check each item referred to and acquaint yourself

with the adjustments required to obtain efficient operation and maximum trouble-free service. Remember, a rotary mower which is properly lubricated and adjusted saves time and labor.

After the cutting season, thoroughly clean your rotary 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 re-condition your equipment to a like new condition.

Additional copies of this manual may be ordered from your International Harvester dealer at a nominal price.

INTRODUCTION



A-83920

48-inch rotary mower shown.

The 3 spindle, center mounted, 38-, 42-, and 48-inch rotary mowers, are designed for use on International® Cub Cadet® Tractors having serial number 65458 and higher.

Tractors having serial numbers 65457 and lower use the 38-inch mower only. This combination cannot be used when the tractor is equipped with underdrive.

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

The blade spindle bearings are automotive type tapered roller bearings that can be re-lubricated 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.

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

A heavy-duty V-belt connects and drives the three spindles and permits independent turning of the blades when an obstruction is struck by a blade.

Raising and lowering of the mower is done by means of the tractor lift lever.

Gauge wheels permit setting of the cutting height to allow the mower to follow the contour of the ground and preventing scalping of the ground.

The leaf mulcher plate (special) bolts to the mower at the discharge opening. Do not use this plate when mowing grass.

The lift linkage can be easily detached from the mower by removing four pins and from the tractor by removing three pins. It provides and maintains a true parallel lift for the mower throughout the cutting height range of 1 inch to 5-1/4 inches on 38 and 42-inch mowers; 1 to

4 inches on 48-inch mower. When the 38-inch mower is used on Cub Cadet Tractors having serial numbers 65 457 and lower, the cutting height range is from 1 inch to 3-1/4 inches.

A power take-off clutch package (473 487 R92) is required but not included with the mower. This package is available at your International Harvester dealer.

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 hand lever mounted on the steering wheel standard.

The main drive V-belt idler pulleys do not require detaching when mounting a 42-inch spring trip blade.

Illustrations are numbered to correspond with the page number on which they are located. Therefore, if reference is made to **Illust. 6A** for example, you know the illustration appears on page 6. The letter "A" indicates that it is the second illustration on that particular page.



SAFETY RULES

No minor should be allowed to operate the mower unless properly supervised.

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.

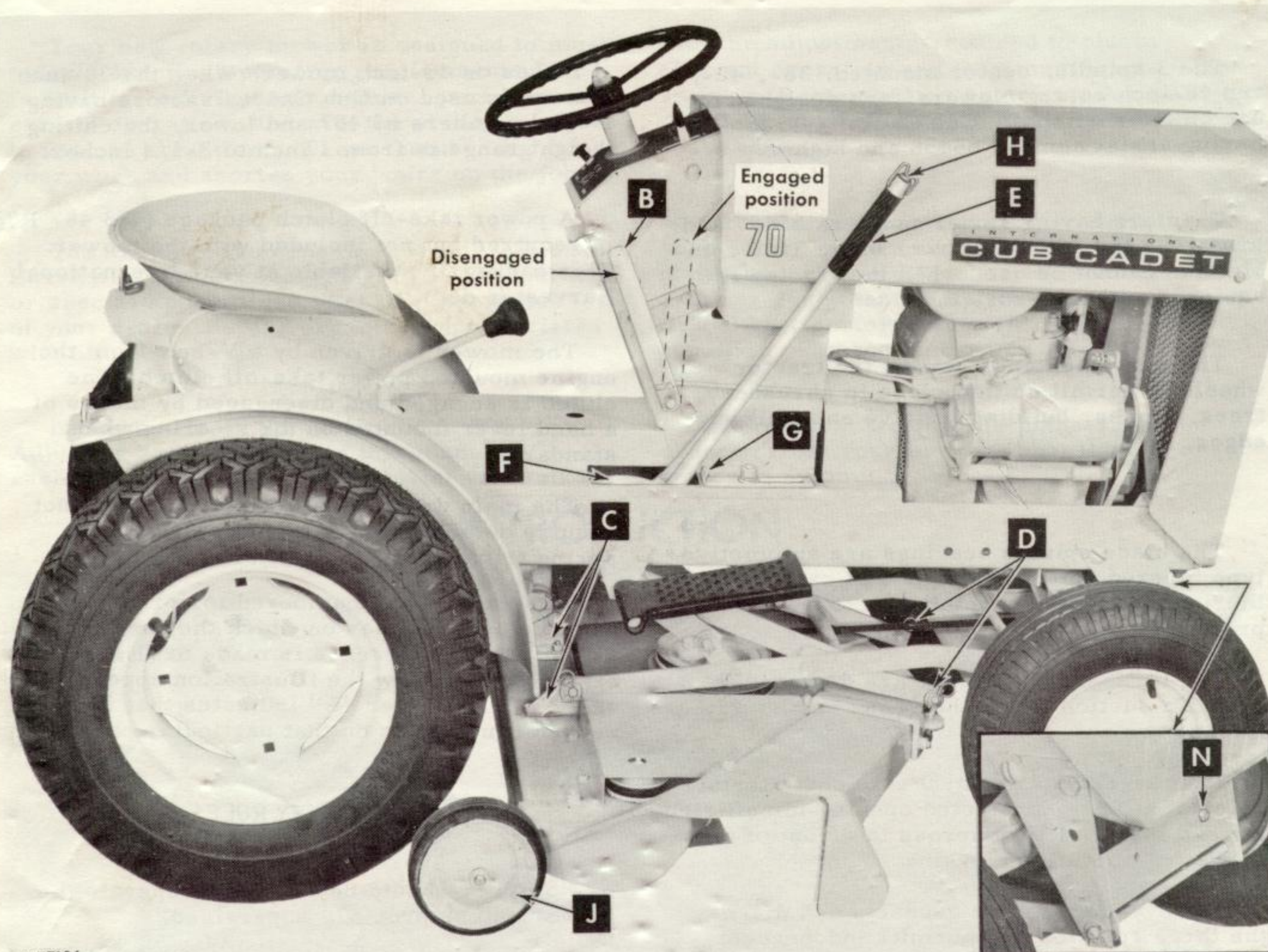
Never leave the tractor engine running unattended or permit it to be operated by persons not acquainted with its use and the rules for safe operation.

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 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.

Disengage the power take-off clutch before starting the tractor.

ADJUSTING AND OPERATING



A-77136

Illustr. 4
42-inch rotary mower shown.

GENERAL

After 4 hours of running, check and adjust for V-belt tension in both belts. Refer to "V-BELT TIGHTENER" on page 6.

After 8 to 10 hours of operation check and retighten, if necessary, all nuts and bolts on the machine paying particular attention to the hex. nuts securing the blades to the spindles and the cap screws 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.

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 blade remains balanced. However, if the cutting edge of the 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.

Flats are provided on outside pulleys to keep spindles from rotating when blade nuts are removed. A hole is provided in center pulley and housing so a screw driver can be used to keep the center spindle from rotating.

When replacing the blades, be sure they are assembled on the friction discs so the cutting edges are in the direction of rotation with the wind wings pointed upward and the cap screws tightened securely.

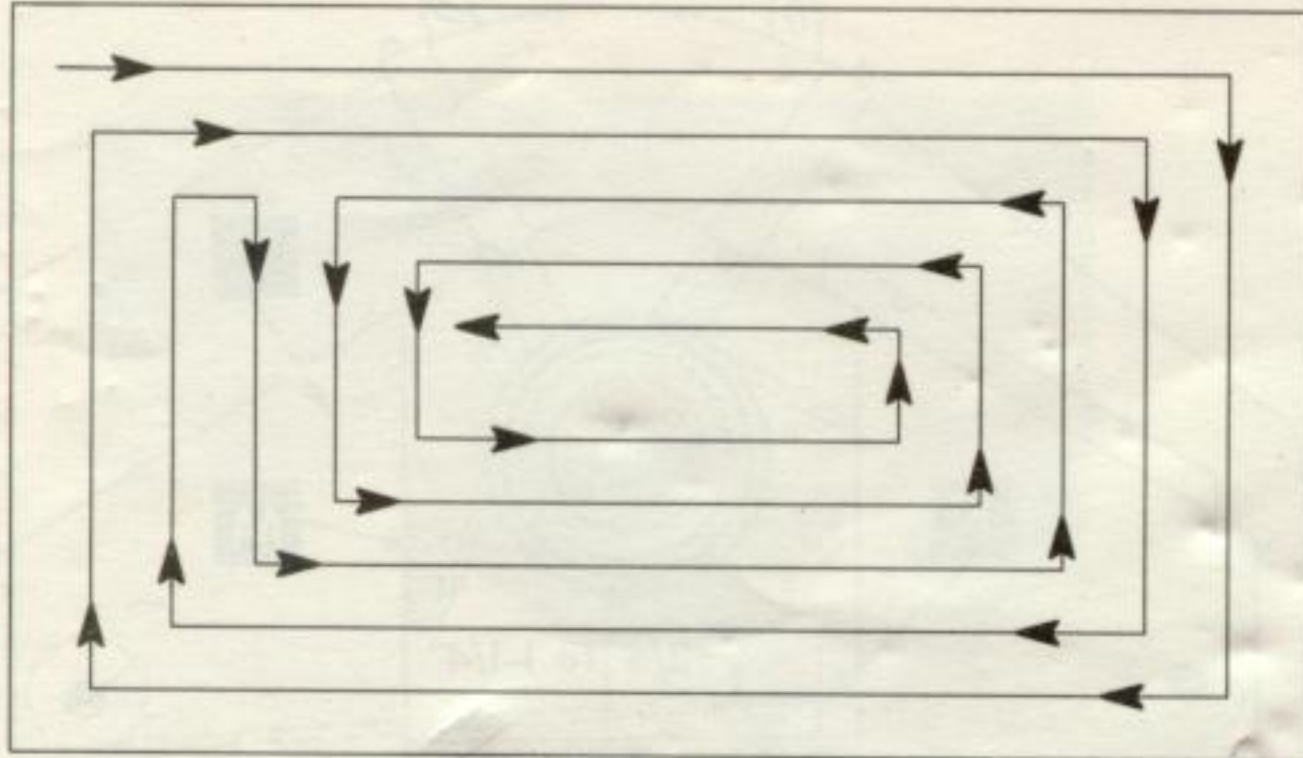
Note: If the spindle nuts are removed for any reason, they should be tightened to 55 to 60 foot-pounds torque when replaced.



Caution! Never look into the discharge opening while the blades are in motion.

ADJUSTING AND OPERATING

MOWING



A-62943

Illust. 5

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. See Illust. 5.

Do not cut the grass too short, as it will give a scalping effect and invite weed growth.

Under some conditions, particularly heavy cutting, improved mowing will result if tractor is operated in first gear with wide open throttle.

Note: The right hand cutting edge of the mower is in line with the inner edge of the mower shoe at "A" (Illust. 7).

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.



Caution! Stop the tractor motor before attempting to clean or work on the mower.

LUBRICATION

After every 16 hours of operation, lubricate the three spindle bearings (one fitting in each spindle), using chassis lubricant (pressure gun grease). Only one or two strokes of the applicator is required.

Once each season or when they become noisy, oil the V-belt idler pulley bearings using a good grade engine oil.

STARTING AND STOPPING THE MOWER

To start the mower, push hand lever "B" (Illust. 4) to the notch in the forward position. To stop the mower, pull the lever to the notch in the rearward position.

LEVEL ADJUSTMENT

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

Side to Side

Lower the mower almost to the ground making sure the gauge wheels do not touch the ground. Add or remove spacers, as required, under the left and right rear hanger brackets "C" (Illust. 4) so the height from the top of the mower housing to the ground is equal on each side. Then tighten hanger brackets securely.

Front to Rear

Push the tractor lift lever all the way forward to lower the mower to the ground, with the gauge wheels adjusted to the desired cutting height. Rotate the center and one outer blade so they are parallel and pointing straight to the front and rear. Then adjust the left and right eyebolts "D" (Illust. 4) so the rear tip of the outer blade is 1/4 inch higher than the front tip of the center blade. If the mower is to be used for close cutting of fine lawns, the front tip of the center blade should be set at the same height as the rear tip of the outer blades. Approximately the same number of threads should show below each stop nut.

HEIGHT OF CUT

When gauge wheels are not used to control the cutting heights above 2-1/2 inches, the tractor lift lever "E" (Illust. 4) is used to control the height.

The cutting height can be adjusted from 1 inch to 5-1/4 inches easily and quickly and is maintained at a set level by securing the lift lever in a notch in the quadrant "F" (Illust. 4).

A lift arm stop "G" (Illust. 4) is provided with the tractor. The stop is used so the mower can be raised, as for an obstacle, and then lowered after the obstacle is crossed, thereby, maintaining the preset cutting height. Also, by means of the stop, an infinite number of cutting heights are available within the 1 inch to 5-1/4 inch range.

When using the lift arm stop, move the wire bail over the push button "H" (Illust. 4) to prevent the lever from accidentally becoming latched in a position other than the one desired.

Raise the mower to the desired cutting height; then adjust the stop so it contacts the lift lever. Tighten the bolt securely.

ADJUSTING AND OPERATING

GAUGE WHEELS

Using the gauge wheels for setting of the cutting height allows the mower to follow the contour of the ground and aids in preventing scalping of the ground.

When using the gauge wheels to control the cutting height, lock push button "H" (Illustr. 4) on the tractor lift lever with the wire bail to the inoperative position so the mower is free to float up and down.

For 38 and 42-inch mowers: Four adjusting holes are provided in the housing casting for setting gauge wheels "J" (Illustr. 4).

For 48-inch mowers: Five adjusting holes are provided in the gauge wheel arm for setting the gauge wheels. See Ref. 1, Illustr. 9.

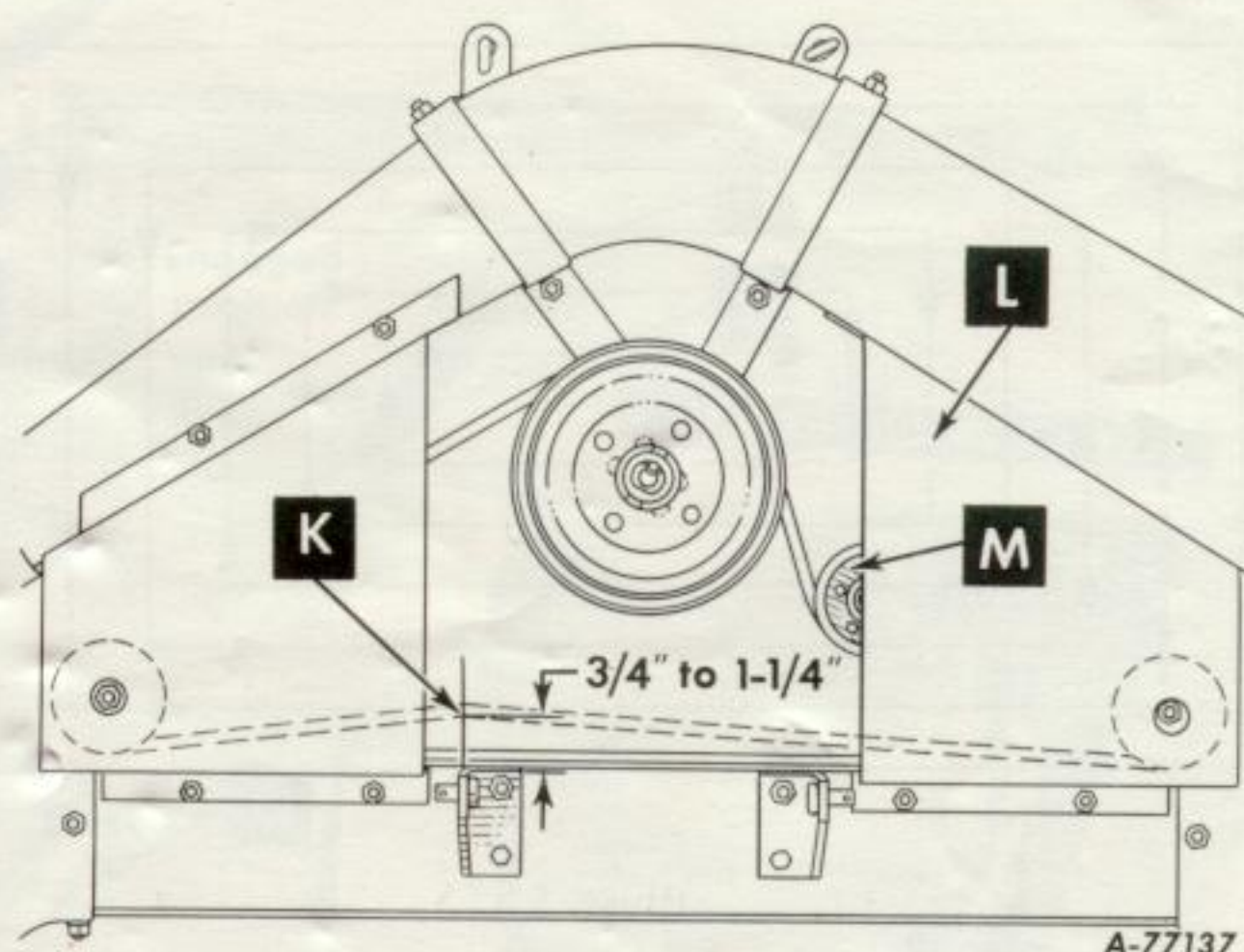
V-BELT TIGHTENER

Spindle V-Belt

Adjust belt tightener so that with slight thumb pressure (10-pounds maximum) at point "K" (Illustr. 6), the belt will depress $\frac{3}{4}$ inch to 1- $\frac{1}{4}$ inches.

To adjust the spindle V-belt for proper tension as shown in Illustr. 6, remove shield "L" and slide idler pulley "M" in the slot as required. Tighten the idler pulley and reinstall the shield.

Note: Keep the V-belts properly tightened, especially under tough mowing conditions, to prevent premature belt, pulley, and bearing failure. Care should be taken not to over-tighten belts as this can also lead to premature failures.

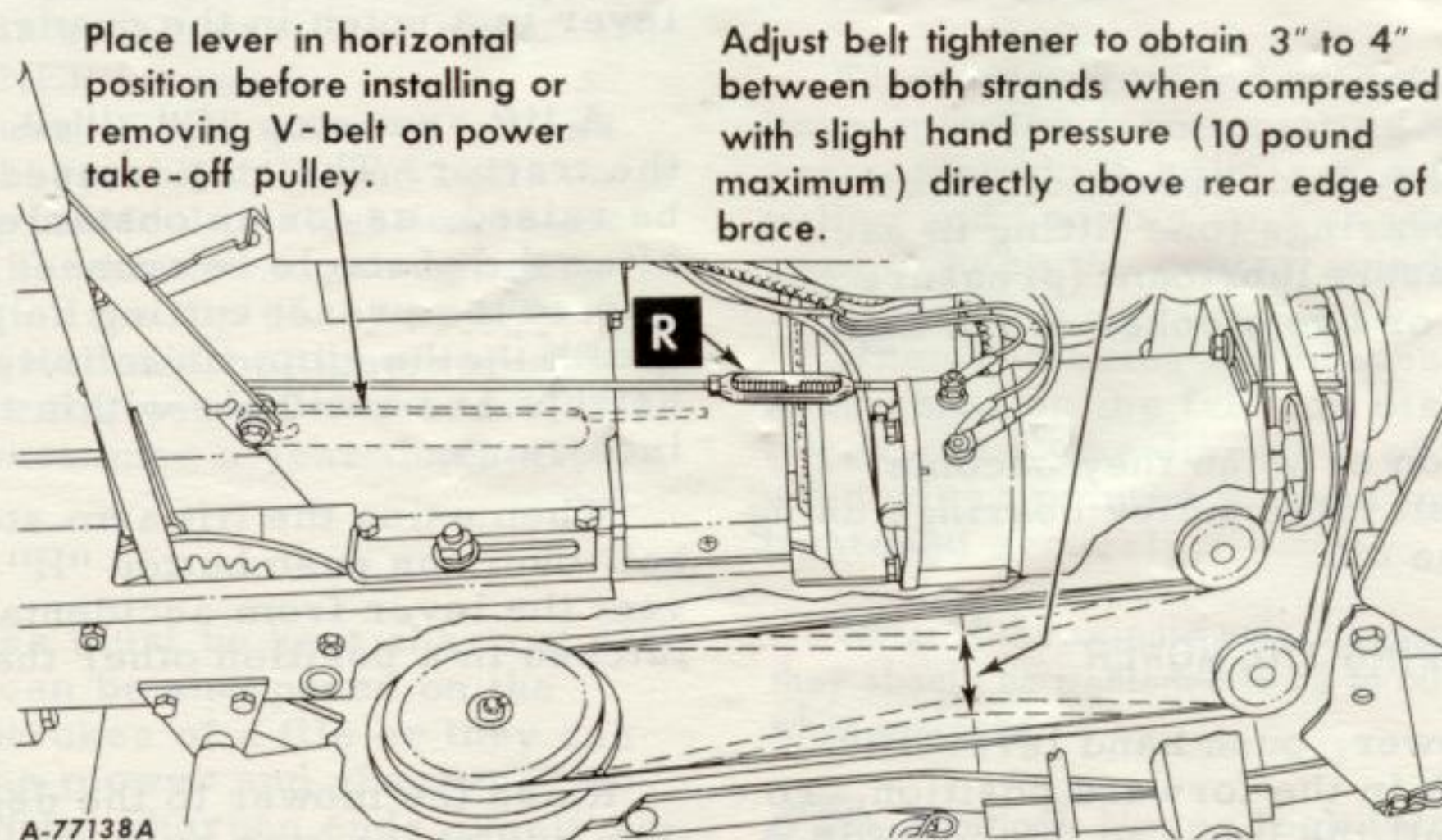


Illustr. 6
42-inch rotary mower shown

Main Drive V-Belt

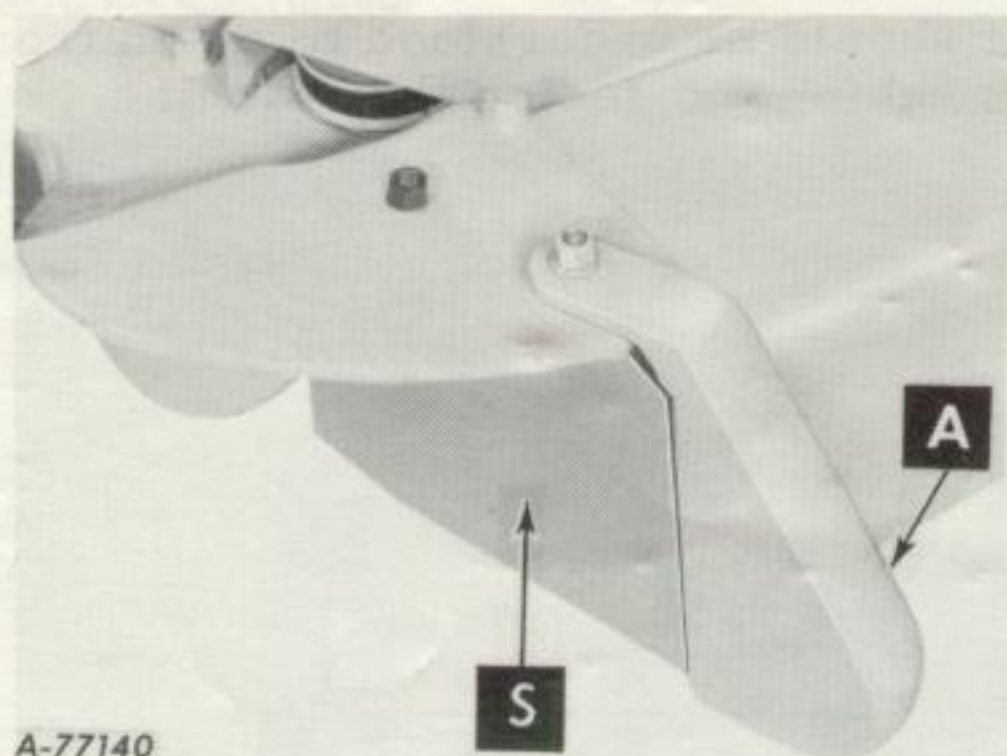
By means of adjusting bolt "N" (Illustr. 4), adjust the main drive V-belt for tension as shown in Illustr. 6A. Tighten the lock nut to increase belt tension and loosen the lock nut to decrease belt tension.

To install or remove the belt, pull the lift lever "E" (Illustr. 4) to the rearward position and push hand lever "B" (Illustr. 4) forward to a horizontal position as shown in Illustr. 6A. This will provide sufficient clearance between the wear and thrust buttons on the clutch.



Illustr. 6A
42-inch rotary mower shown.

LEAF MULCHER (Special)



Illust. 7
42-inch rotary mower shown.

The leaf mulcher "S" (Illust. 7) bolts to the mower at the discharge opening. The mower is set as low as possible and still allow the leaves to feed under the front of the mower. Do not use this plate when moving grass. No special blades are used for mulching. The regular blades are used. Bolt the plate to the mower. For 38 and 42-inch mowers, secure with a 3/8 x 1 inch crg. bolt, lock washer, and nut. See Illust. 7. For 48-inch mowers, secure the leaf mulcher plate assembly to the mower in a similar manner using a 3/8 x 3/4-inch crg. bolt, lock washer, and nut.

ATTACHING AND DETACHING THE MOWER

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

Remove the quick-attachable cotter-pins from the left and right rear hanger brackets "C" (Illust. 4) and slip frame off pins.

Remove the quick-attachable cotter-pins from the left and right eyebolt pins at "D" and slip the eyebolts off the pins.

Slide the mower forward and remove the V-belt from the center pulley.

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.

When the 48-inch mower is to be detached from the tractor for blade sharpening, adjusting, etc., it is necessary to turn the tractor front wheels to the right. Sometimes it is helpful to swing the left runner free of the mower after removing bolt "T" (Illust. 9), to facilitate sliding the mower between the tractor wheels and out from under the tractor.

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



SETTING UP

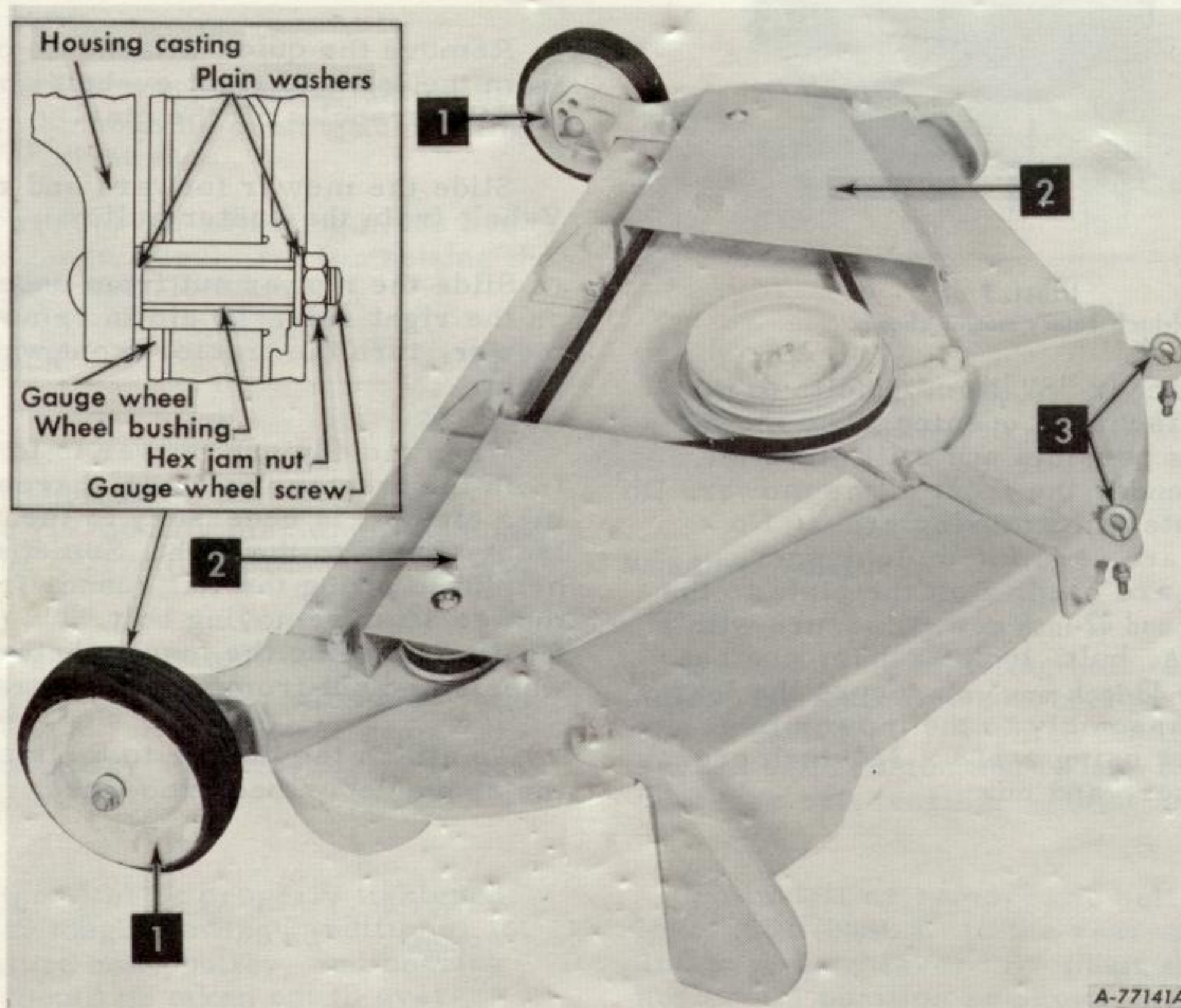
Remove all parts from the shipping carton and arrange the parts conveniently.

Bolts must be used in the holes in which they are found, or in the parts to which they

are attached, unless otherwise shown.

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

ASSEMBLY



Illustr. 8
42-inch rotary mower shown.

1. For 38, 42, and 48-inch mowers: Insert the gauge wheel screw (heads facing toward each other) in the desired adjusting hole in the gauge wheel arm. Attach 13/32 x 13/16 x 1/16-inch plain washer, wheel bushing, gauge wheel, 13/32 x 13/16 x 1/16-inch plain washer in that order. For 38 and 42-inch mowers, secure with a 3/8-inch jam nut. See Illustr. 8. For 48-inch mowers, secure with lock washers, and hex. nut. See Illustr. 9.

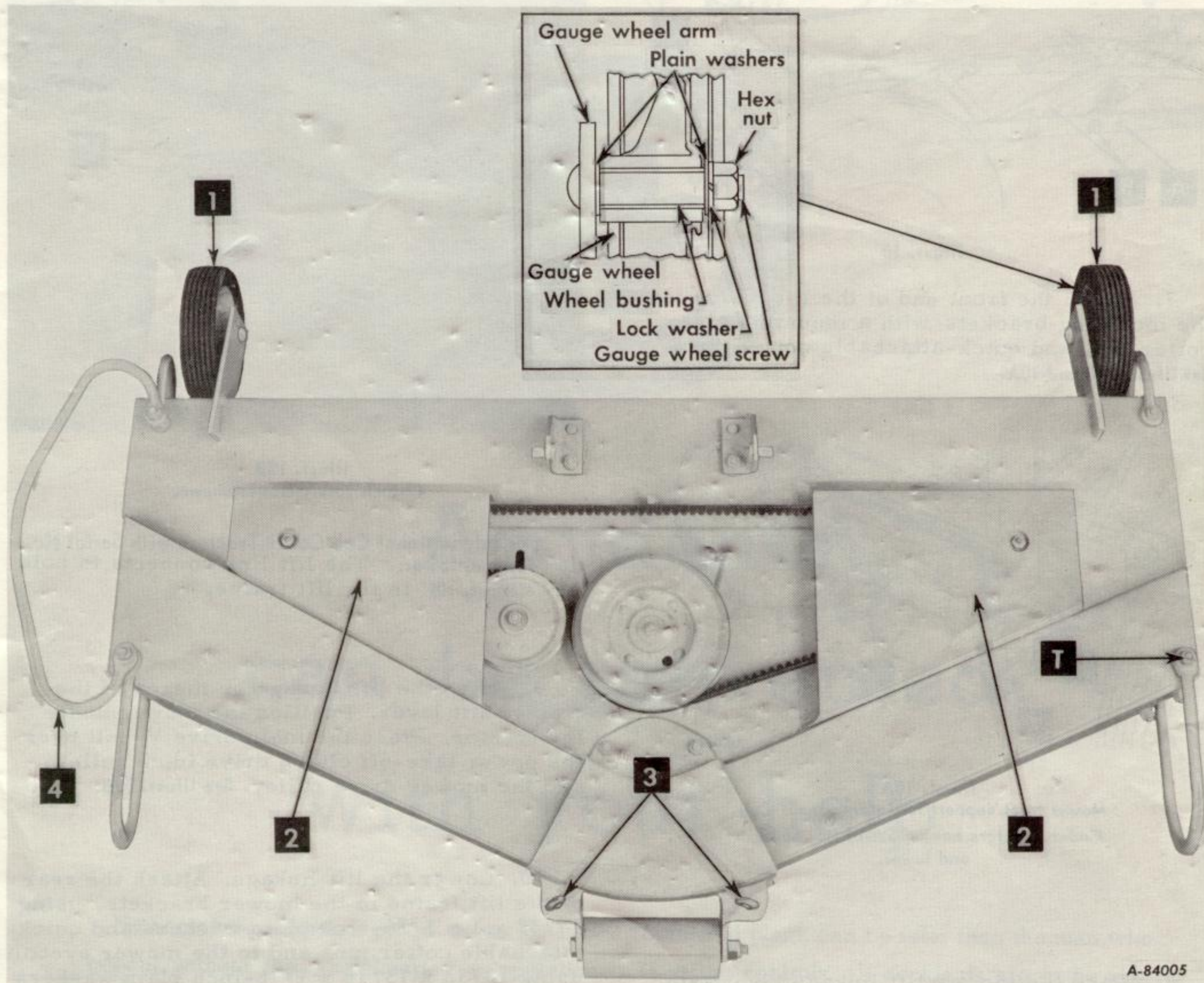
2. For 38 and 42-inch mowers: Attach the left pulley shield to the mower, using four lock washers and nuts. Slip the front edge of the right pulley shield over the bolt on the rear side of the mower grass chute, then secure the rear edge of the shield, using two lock washers and nuts. See Illustr. 8.

For 48-inch mowers: Slip the front edge of the right pulley shield over the bolt on the rear side of the mower grass chute, then secure the rear edge of the shield, using two 1/4 x 1/2-inch crg. bolts, lock washers, and nuts. Assemble the left pulley shield in the same manner. See Illustr. 9.

3. For 38, 42, and 48-inch mowers: Attach the eyebolts to the mower with two 11/32 x 11/16 x 1/8-inch plain washers and stop nuts. Leave the eyebolts loose at this time. See Illustr. 8 and 9.

4. For 48-inch mowers: Remove right runner nuts and lock washers. Attach discharge guard and secure with lock washers and nuts that were removed. See Illustr. 9.

ASSEMBLY - Continued



A-84005

Illust. 9
48-inch rotary mower shown.

Note: The tractor must be equipped with a power take-off clutch (package 473 487 R92) before attaching the mower. This package is available at your International Harvester dealer.

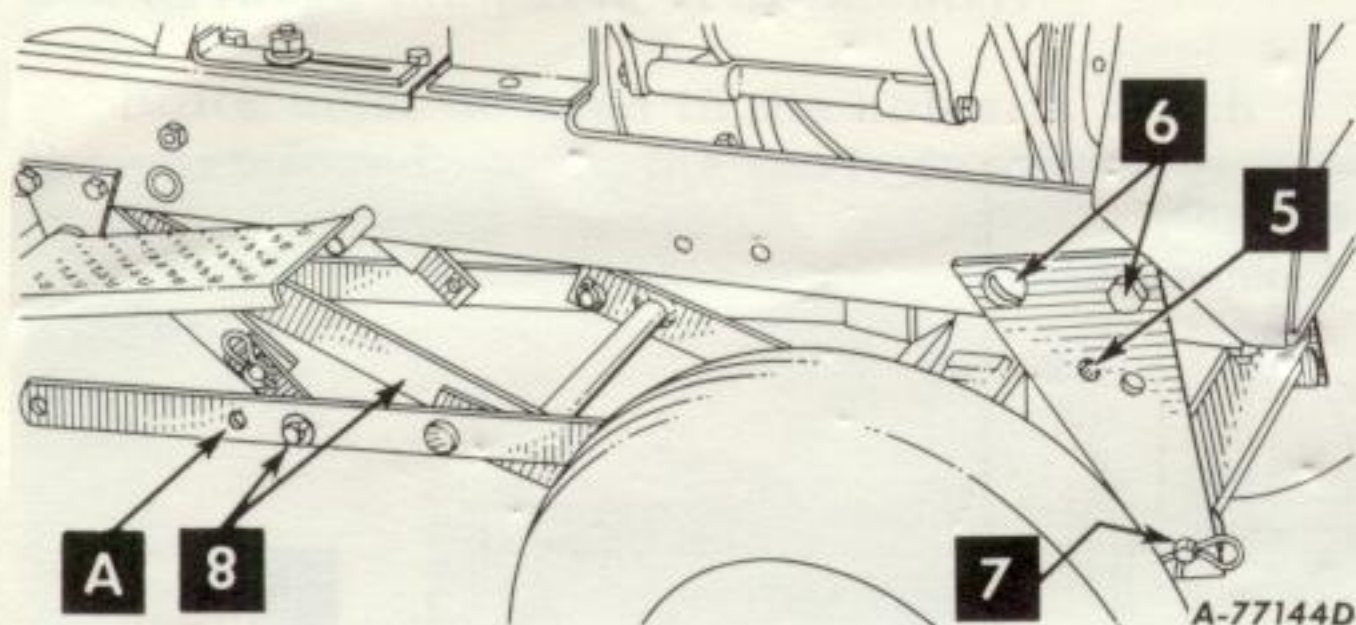
5. International Cub Cadet Tractors with Serial No. 65 458 and higher: Insert the ends of the idler support shaft into the holes in the mounting bracket, secure with cotter pins. Place the adjusting bolt in the hole in the idler support and into the hole in the front cover of the bracket. Secure loosely with three plain washers and stop nut. See Illust. 10.

International Cub Cadet Tractors with Serial No. 65 457 and lower: Insert the ends of the idler support shaft into the holes in the front support. Place the adjusting bolt in the hole in the idler support and into the hole in the front support as shown in Illust. 10A. Secure loosely with three plain washers and stop nut; then bolt the front support to the tractor frame.

6. Bolt the brackets to the tractor frame, using 1/2 x 1 inch slotted truss head screws, 1/2 x 1 inch hex. head machine bolts, lock washers and nuts. See Illust. 10.

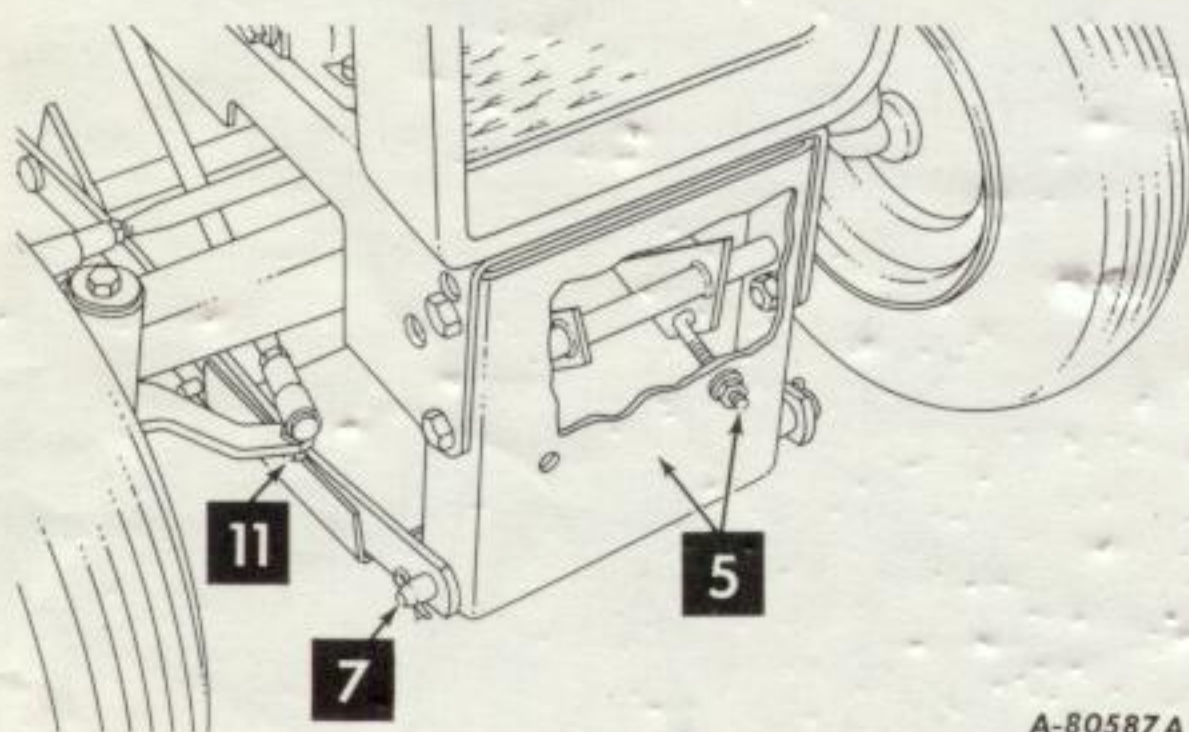
SETTING UP

ASSEMBLY - Continued



Illust. 10

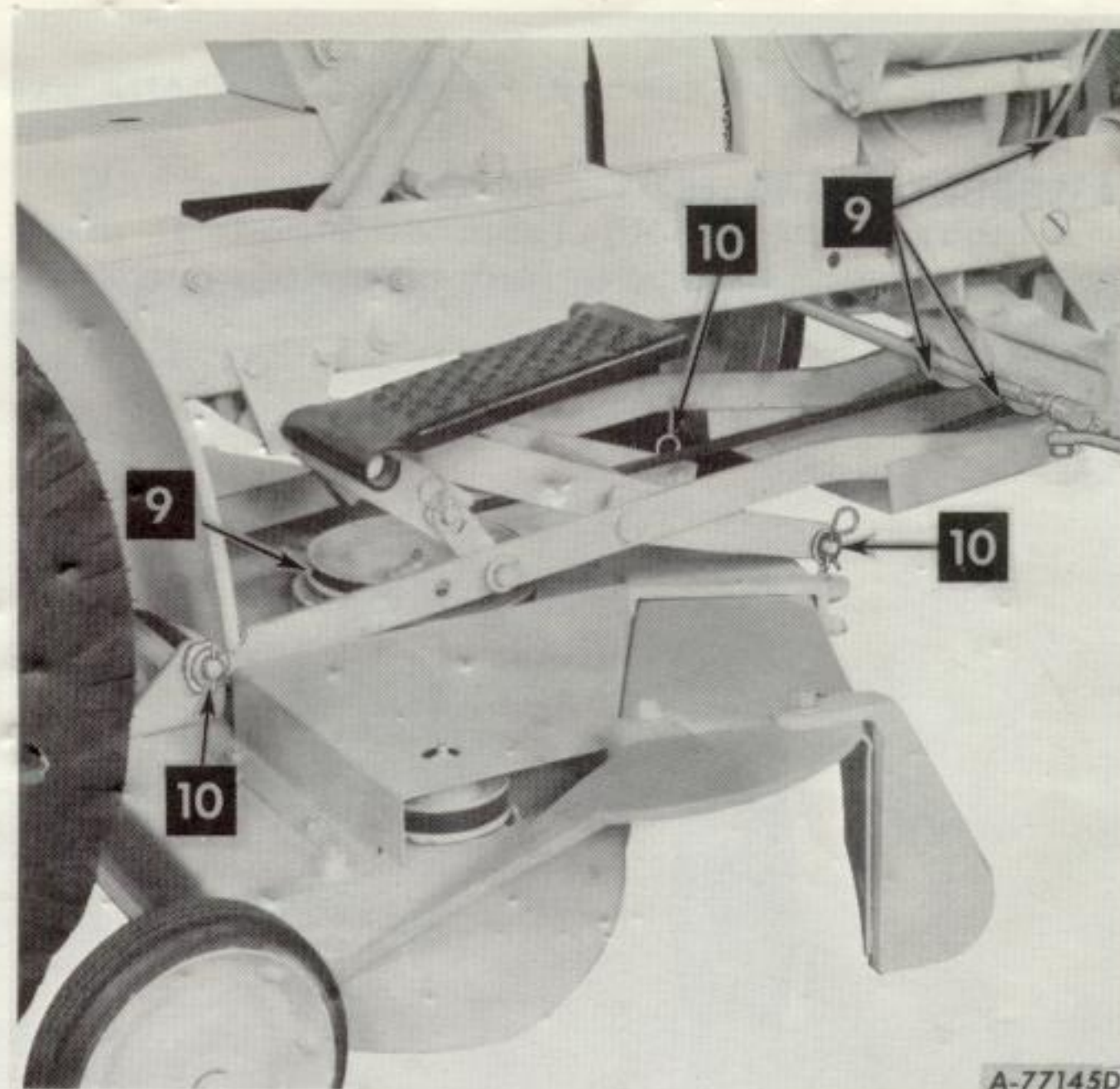
7. Attach the front end of the lift frame to the mounting brackets with a mounting pin, cotter pin, and quick-attachable cotter pin. See Illusts. 10 and 10A.



Illust. 10A
Mower front support for International Cub Cadet Tractors having Serial No. 65 457 and lower.

8. Place the mower lift linkage pivot arm over the tractor lift handle shaft and attach the frame to the tractor lift arms, using lift links, four $17/32 \times 1 \times 1/16$ -inch plain washers, two cotter pins, and two quick-attachable cotter pins. See Illust. 10.

For International Cub Cadet Tractors with Serial No. 65 458 and higher: The lift link goes in the lift frame hole as shown in Illust. 10.



Illust. 10B
42-inch rotary mower shown.

For International Cub Cadet Tractors with Serial No. 65 457 and lower: The lift link connects to hole "A" (Illust. 10) in the lift frame.

9. Raise the lift linkage by means of the tractor lift lever. Position the mower under the tractor. Place the main drive V-belt over the power take-off clutch drive idler pulleys and the mower drive pulley. See Illust. 10B.

10. Lower the lift linkage. Attach the rear of the lift frame to the mower brackets, using $17/32 \times 1 \times 1/16$ -inch plain washers and quick-attachable cotter pins and to the mower eyebolts, using $13/32 \times 13/16 \times 1/16$ -inch plain washers and quick-attachable cotter pins. See Illust. 10B. Adjust the main drive V-belt for tension as described in "V-BELT TIGHTENER" on page 6. Adjust the mower for level as described in "LEVEL ADJUSTMENT" on page 5.

11. For International Cub Cadet Tractors with Serial No. 65 457 and lower: Replace the standard nut on the tractor drag link ball joint with the $3/8$ inch jam nut provided. This provides clearance for the mower lift frame. See Illust. 10A.



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

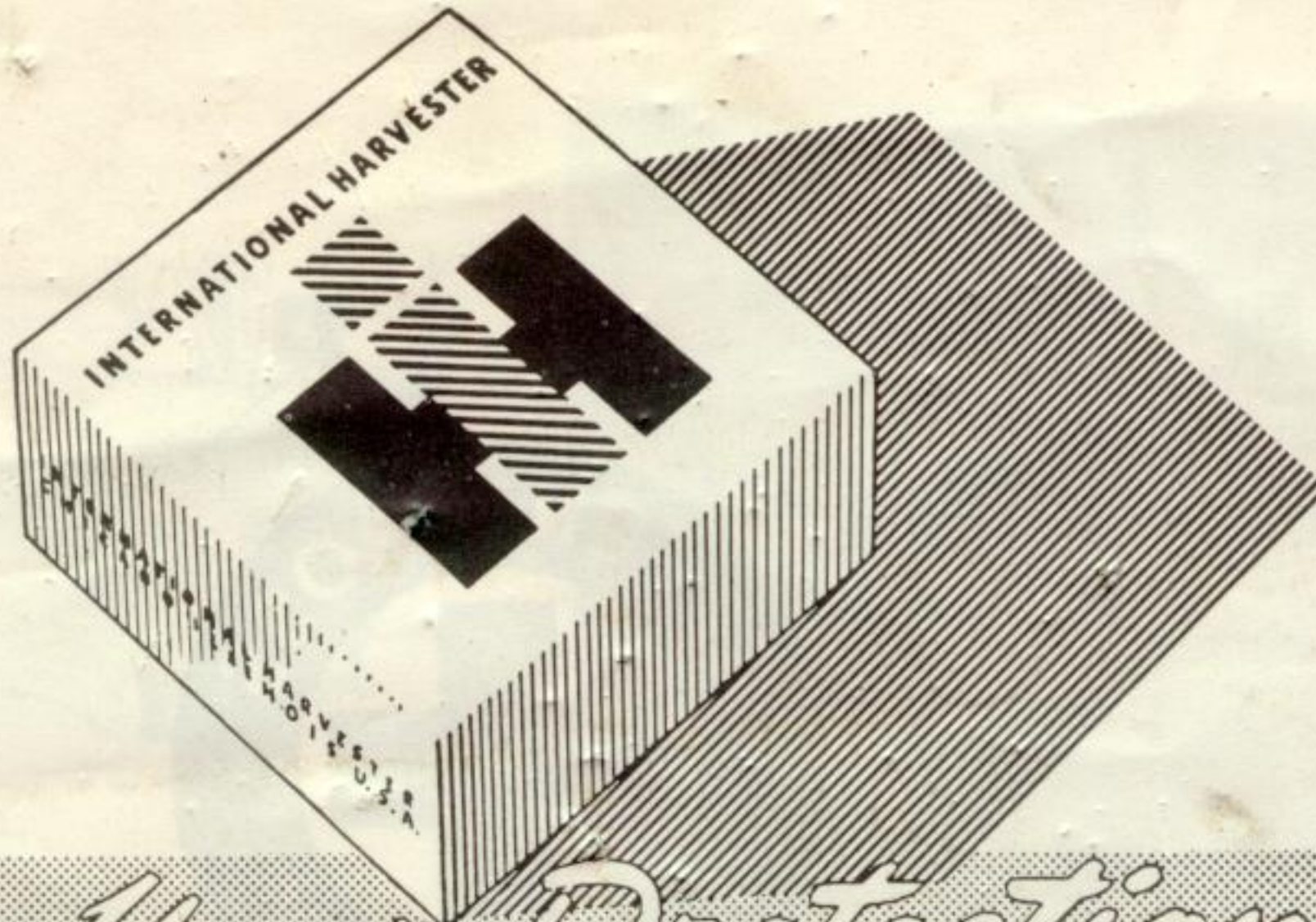
industrial plant, can be safer than the man who is at the controls. If accidents are to be prevented—and they can be prevented—it will be done by the operators who accept a full measure of their responsibility.

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.

As a member of the National Safety Council, we are privileged to use the Green Cross for Safety to designate not only our interest in Safety, but to point out more clearly the safety precautions in this manual.

NATIONAL SAFETY COUNCIL




For Your Protection


Use  Parts

TO THE OWNER—

You have just purchased one of the finest pieces of equipment available today. You can look forward to years of good service because International Harvester machines are designed better and built better to last longer.

When you need to purchase replacement parts or have your equipment serviced, we will be here, ready to serve you.

We stock genuine  parts—the parts that are designed for your equipment, not just made for it.

We also offer you  Blue Ribbon Service—the service that puts your equipment back to work in minimum time at an economical cost. We are here to serve you—call on us in the future.

Sincerely



The people who bring you the machines that work.

INTERNATIONAL HARVESTER COMPANY • 401 NORTH MICHIGAN AVENUE • CHICAGO, ILLINOIS 60611, U.S.A.