

INSTALLATION INSTRUCTIONS FOR FRONT MOUNT  
MOWER - SIDE DISCHARGE Bld. 120-0004  
REAR DISCHARGE Bld. 120-0005

Conversion kits for 42" front mount mower are available through repair:

Side discharge kit 120622

Rear discharge kit 120621

The Rear Discharge Kit is recommended for the homeowner who mows his lawn frequently or intends to use the lawn sweeper. A greater degree of safety is afforded the operator and bystanders with this kit since objects that are picked up by the blades are discharged under and behind the tractor.

The Side Discharge Kit is designed for those homeowners who mow their lawns less frequently without picking up the grass clippings. The side discharge arrangement disperses the clippings over a wider area.

**WARNING:** Side discharge mowers should not be used near bystanders or buildings where a thrown object could cause injury.

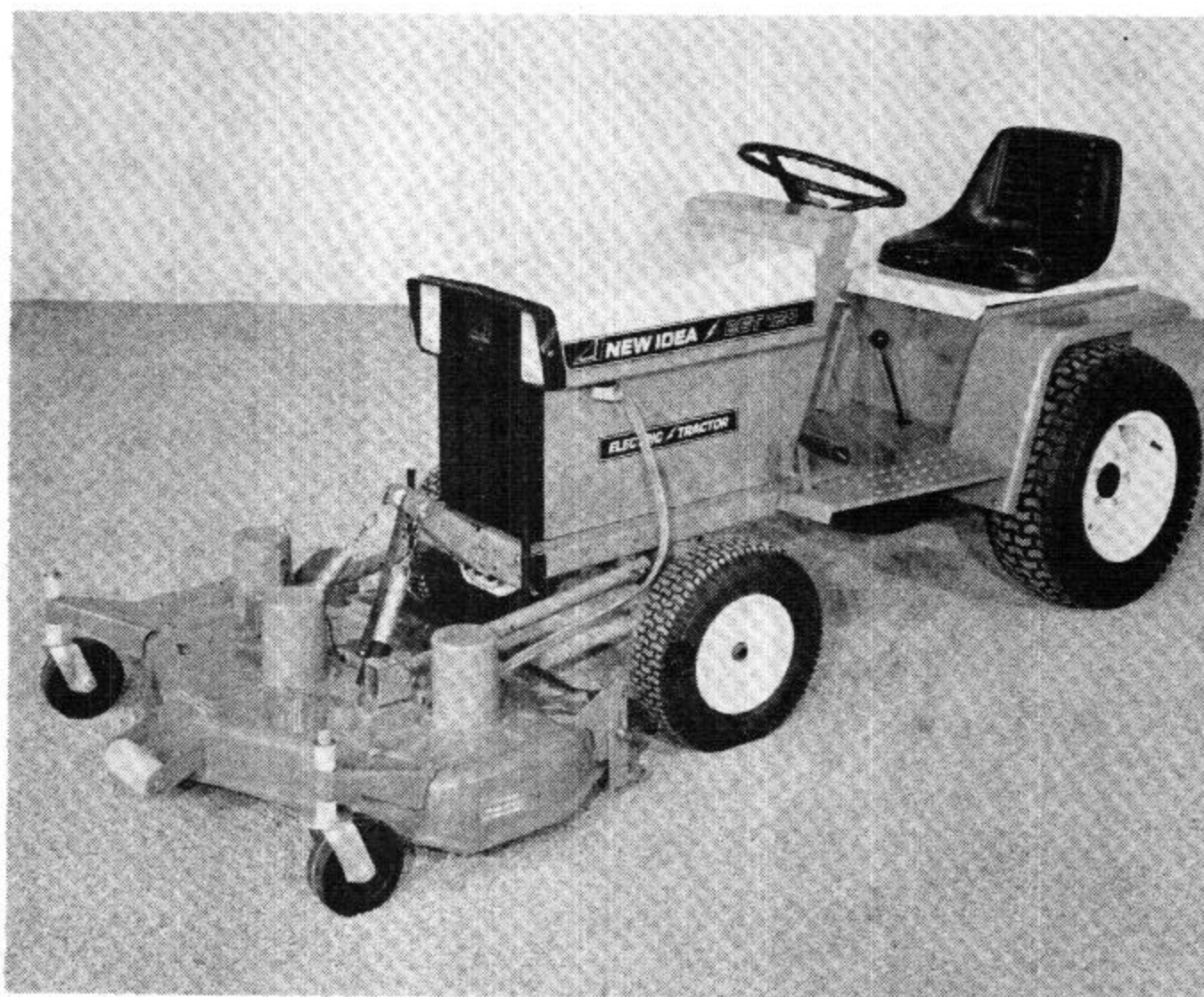


Figure 1

In either configuration, the mower is mounted directly to the Electric tractor without the need of additional equipment. (See Figure 1.)

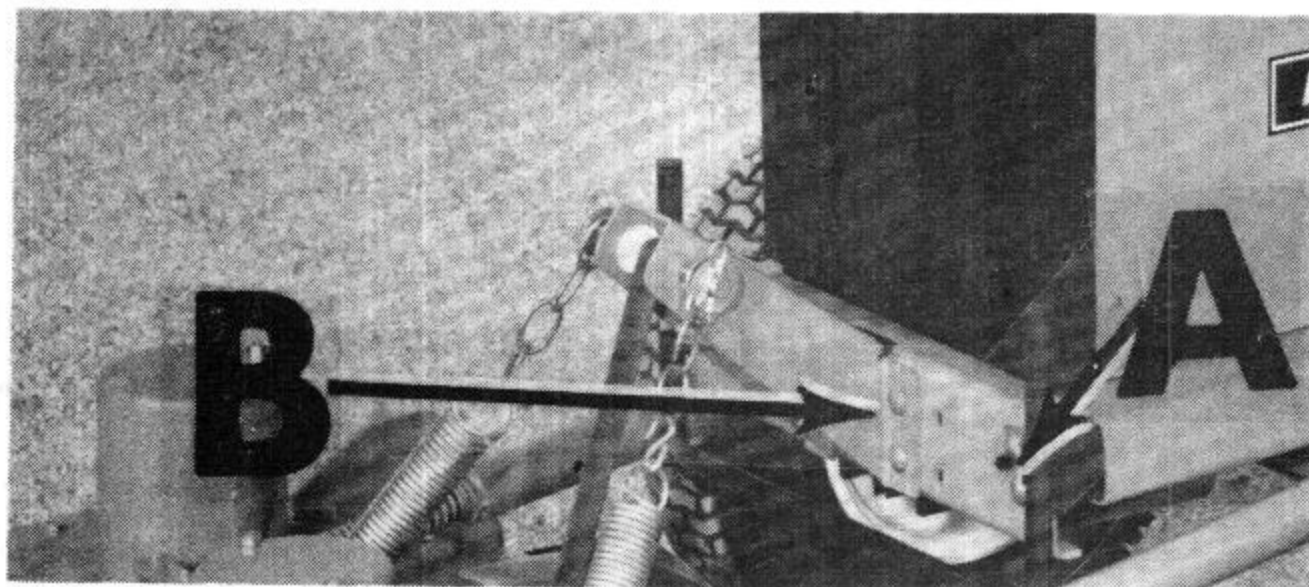


Figure 2

1. Remove the 4 - 5/16 x 1" carriage bolts at "A" both sides.
2. Remove the 4 - 5/16 x 1" carriage bolts at "B" both sides.
3. Install lift derrick to the outside of bumper as shown, using bolts previously removed in step 2.
4. Install complete lift and bumper assembly reusing bolts from step 1.

The front mower guide eliminates any side motion of the mower arms. This improves stability and control in trimming around trees and shrubs. It also provides a bearing for the mower housing when raised for transportation or for mowing high grass.

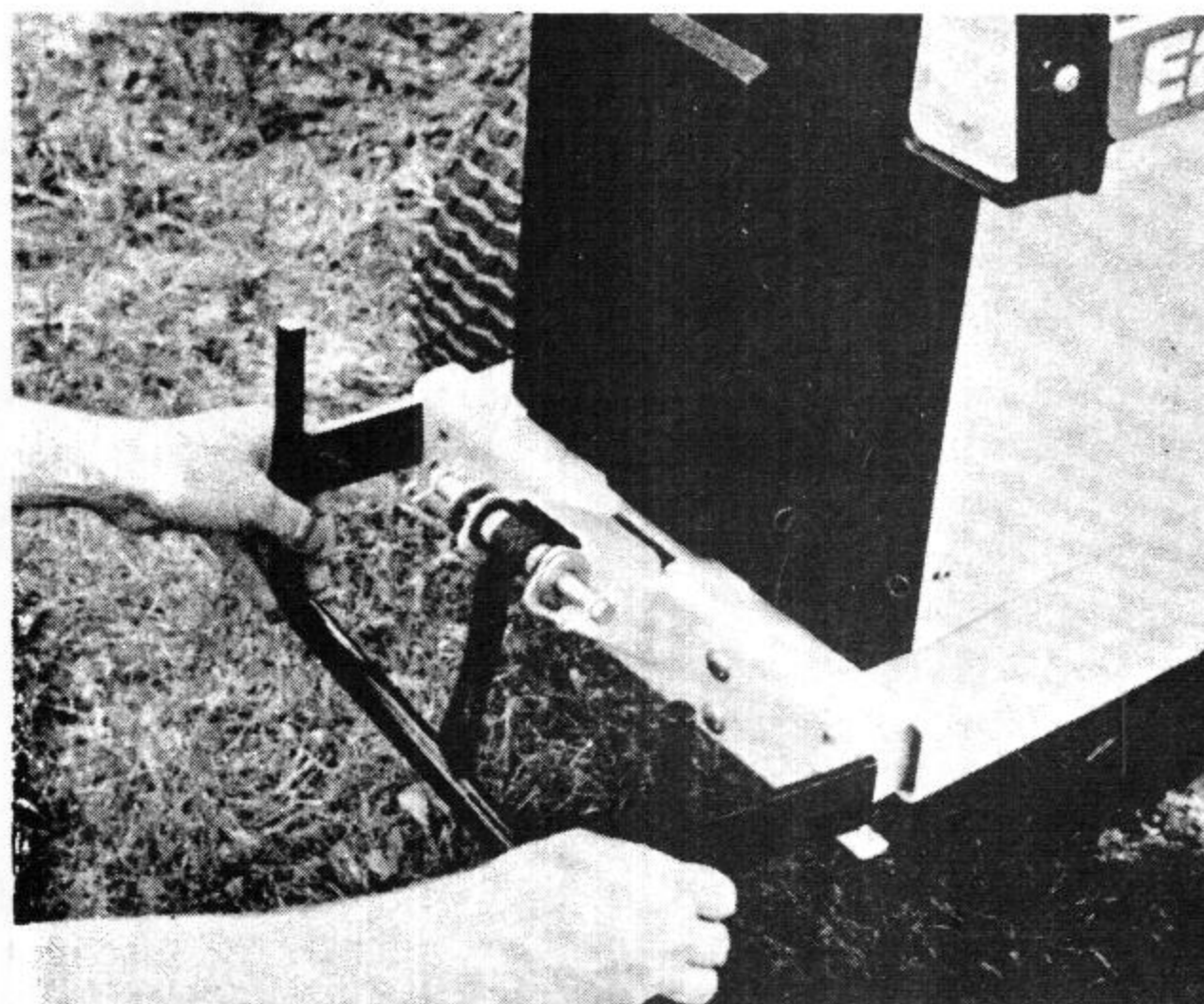


Figure 3

## MOWER GUIDE BAR INSTALLATION

The front mower guide is installed on the front of the tractor with its roller nearest the ground. The two rectangular tabs on each side of the mower guide are inserted in the frame slots on each side of the bumper. (See Fig. 3.) For ease of assembly, insert one tab approximately 1/2-inch into a slot and push sideways on the opposite tab to line it up with the other slot.

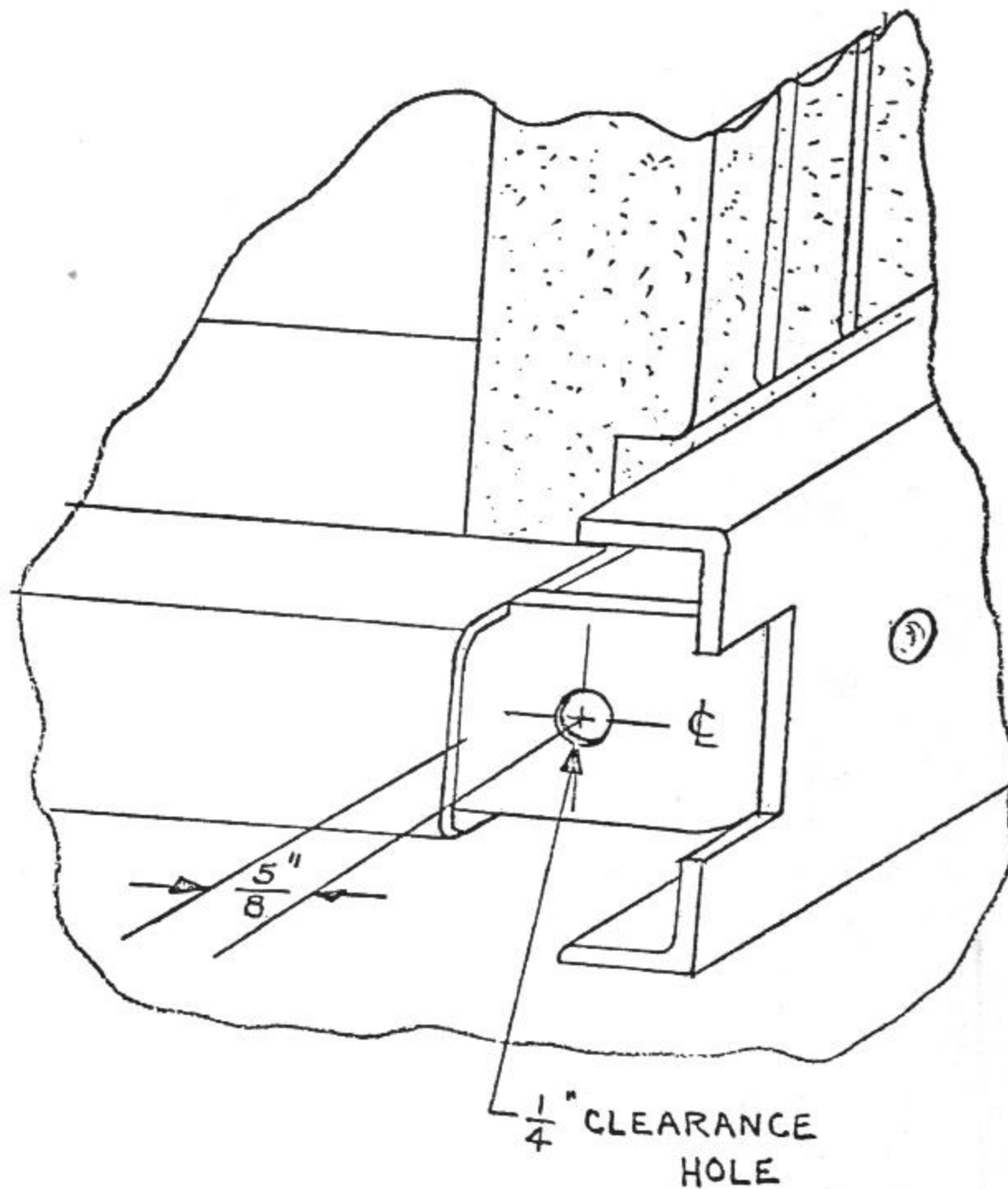


Figure 4

- Fig. 4 - 1. Drill a one-fourth inch clearance hole in the bumper mounting bracket on both sides. Use guide bar as template for hole location as per sketch below.
2. Insert the mower guide bar into the channel grooves of the tractor frame until the holes on the guide bar and those just drilled align with each other--both sides.
  3. Insert the 1/4-20 bolts provided into each pair of holes. Assemble lockwashers and nuts on the bolts and tighten securely.

## MOWER ASSEMBLY

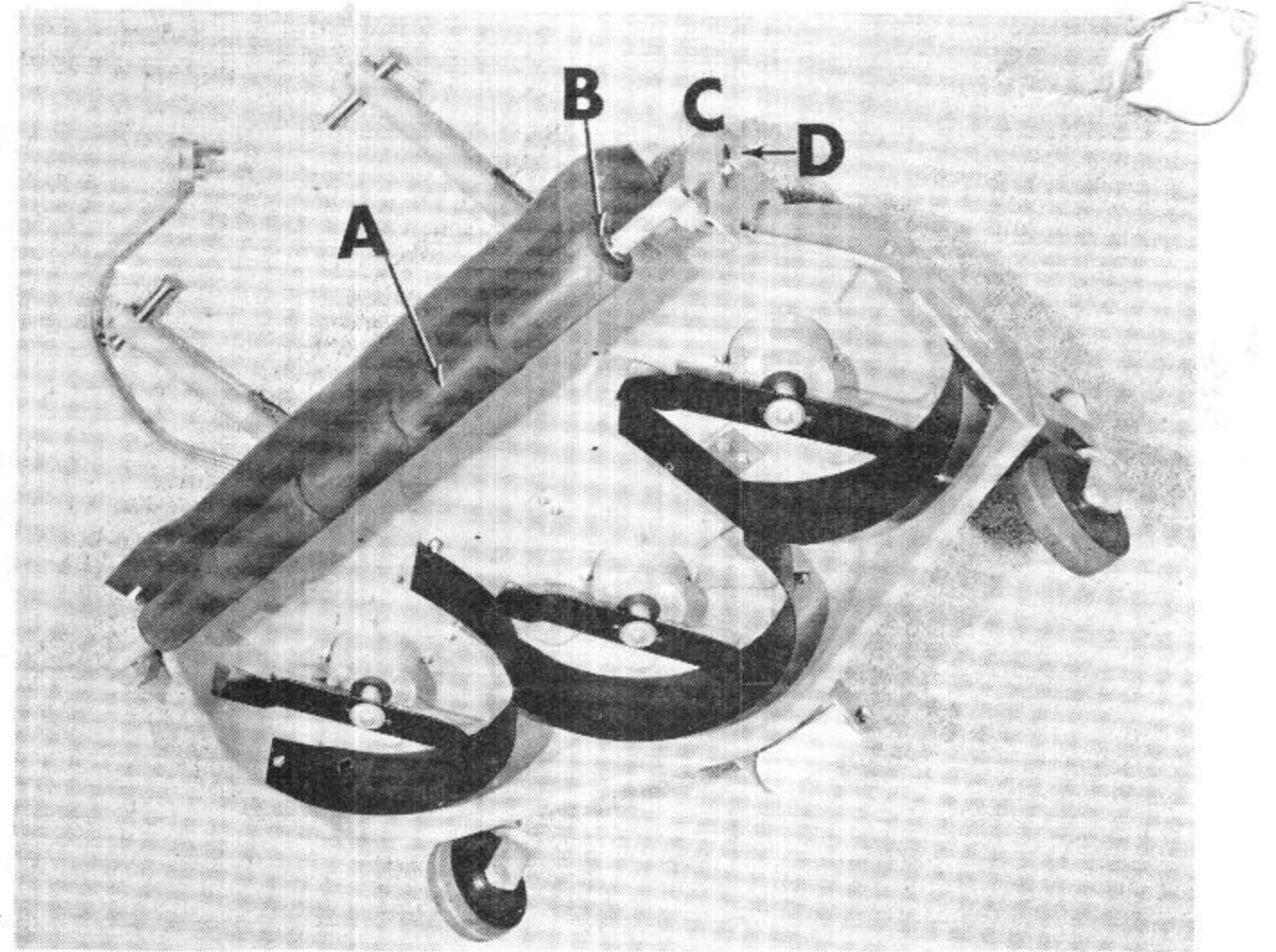
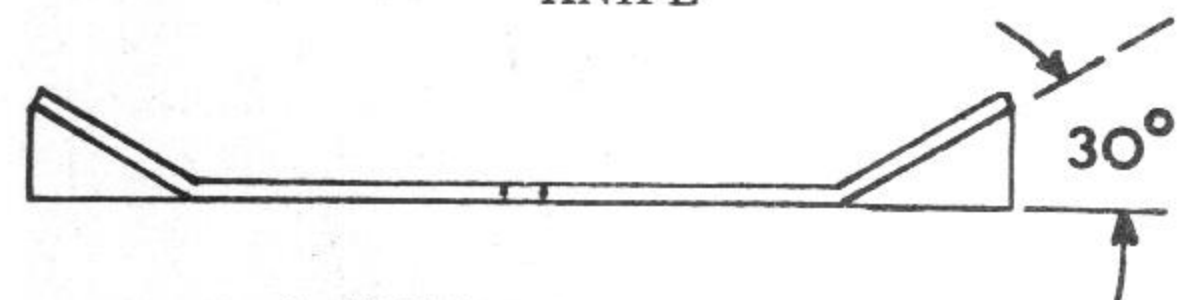


Figure 5

- Fig. 5 - 1. Assemble the rollers "A" with a flat washer "B" between each roller onto shaft and insert the ends of the shaft into adjusters "C".
2. Attach the adjusters "C" to the mower-deck rear corners and secure each in the third lowest guide pinhole with a thumbscrew "D". Thread a locknut on each thumbscrew until the nut is flush with end of screw.
  3. Install discharge flap (rear discharge unit only) so flap is sandwiched between reinforcement strip and underneath side of top deck. Secure in to place using machine screws as shown.
  4. Install caster with 2 bushing on each side of caster bracket and secure with flat washer and cotter pin. See adjustments for final setting.
  5. On side discharge mower install deflector shield using 4 - 5/16 x 3/4" machine bolts.

## KNIFE



A. HIGH-PROFILE BLADE

Figure 6

Fig. 6 - All mowers use a 30° high profile blade. Install in sets only.

## KNIFE INSTALLATION

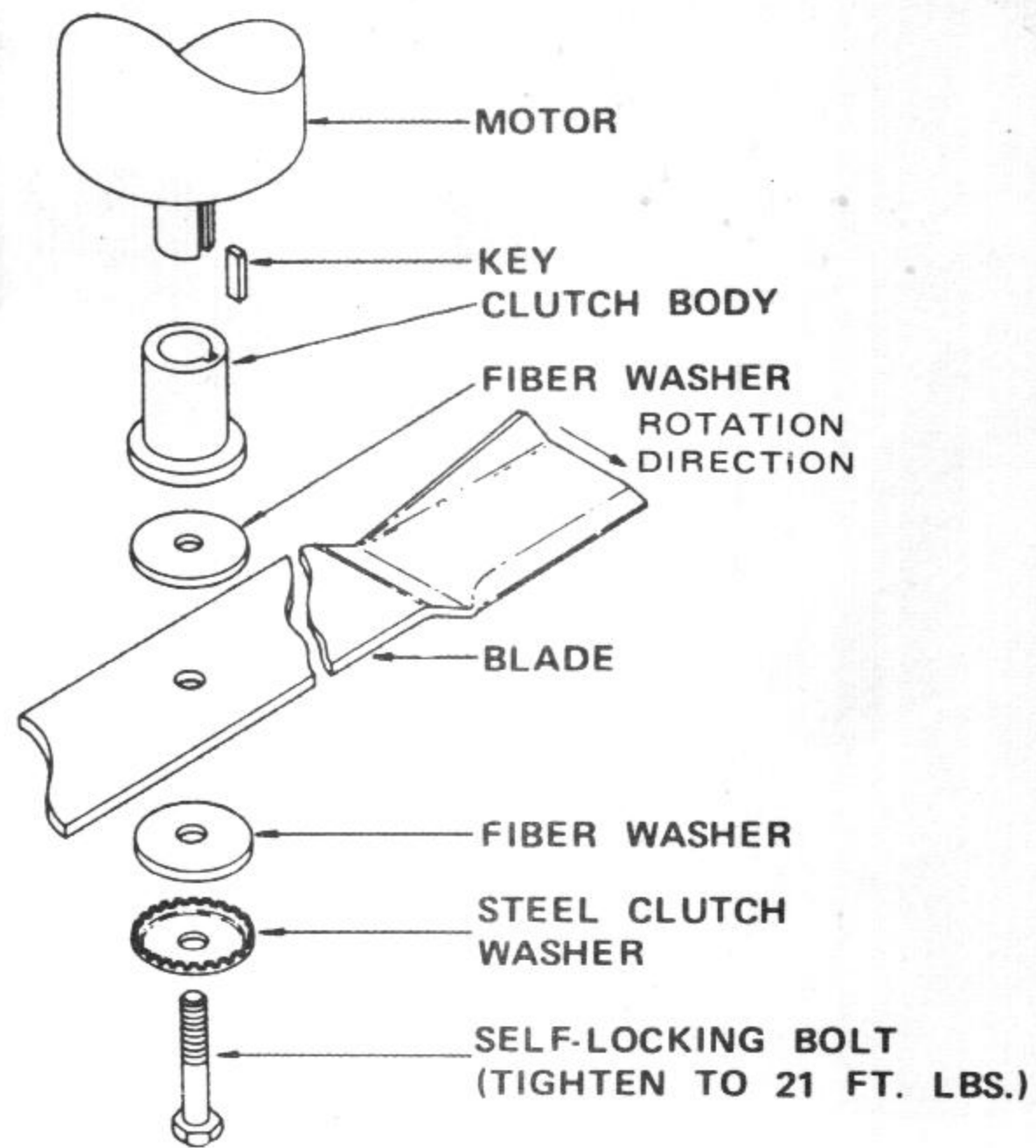


Figure 7

Figure 7 - For installation or replacement of new blades always check that the cutting edge is in the proper direction for rotation. Install blades as shown in Fig. 7. Tighten each self-locking cap screw to approximately 21 foot pounds of torque. Make sure the square key stays in place when installing each clutch hub.

## HELPER SPRINGS

The helper springs must be assembled before initial installation by attaching a three-link chain to the closed "eye" of each spring with an "S" hook. After the assembly is installed, the "S" hook ends should be closed to prevent disassembly when the mower is raised. (See Figure 8).

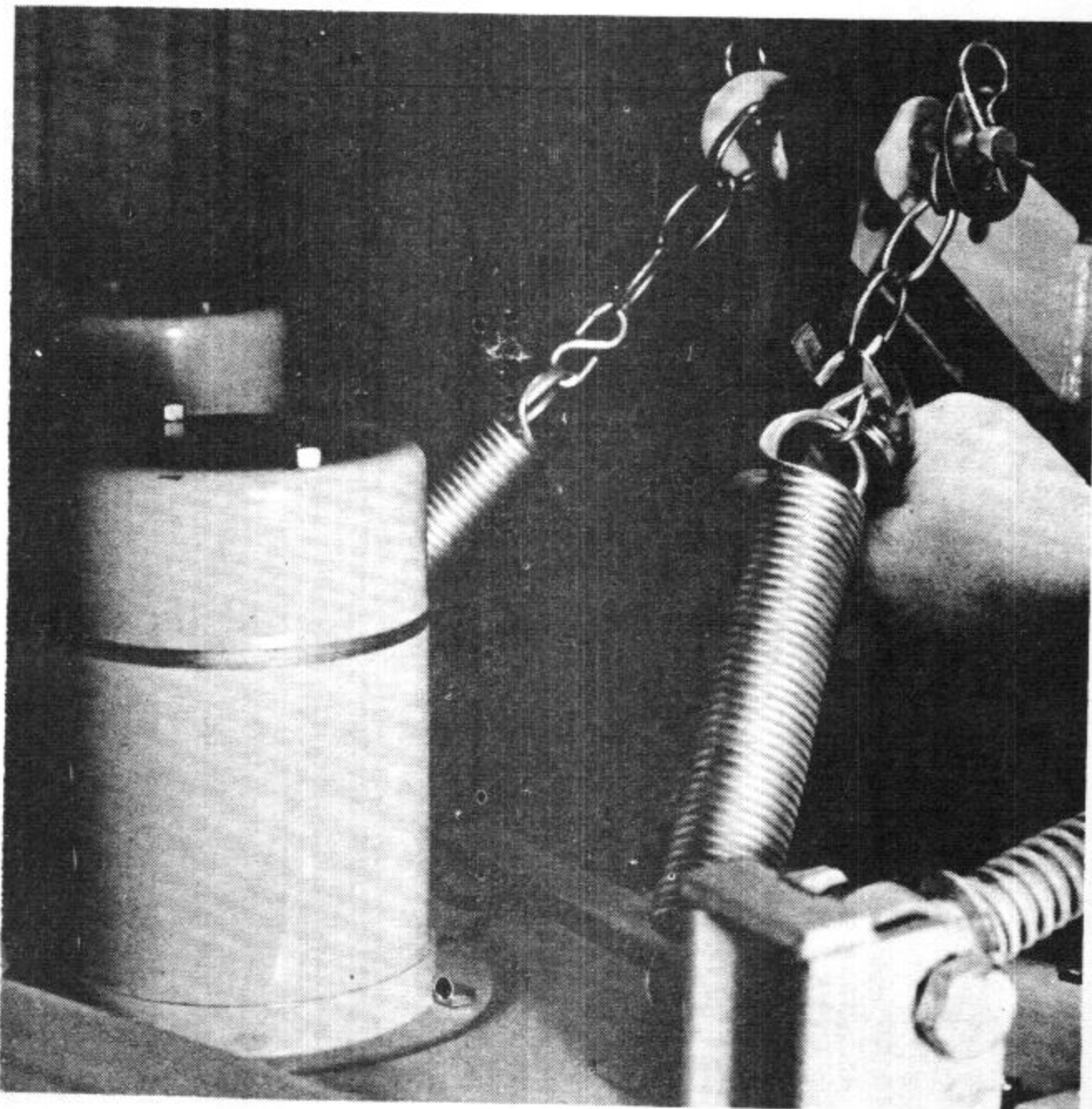


Figure 8

## MOWER ARM WEAR SLEEVES

The mower arm wear sleeves are positioned on each mower mounting arm to prevent wear to the arms where they contact the front mower guide.

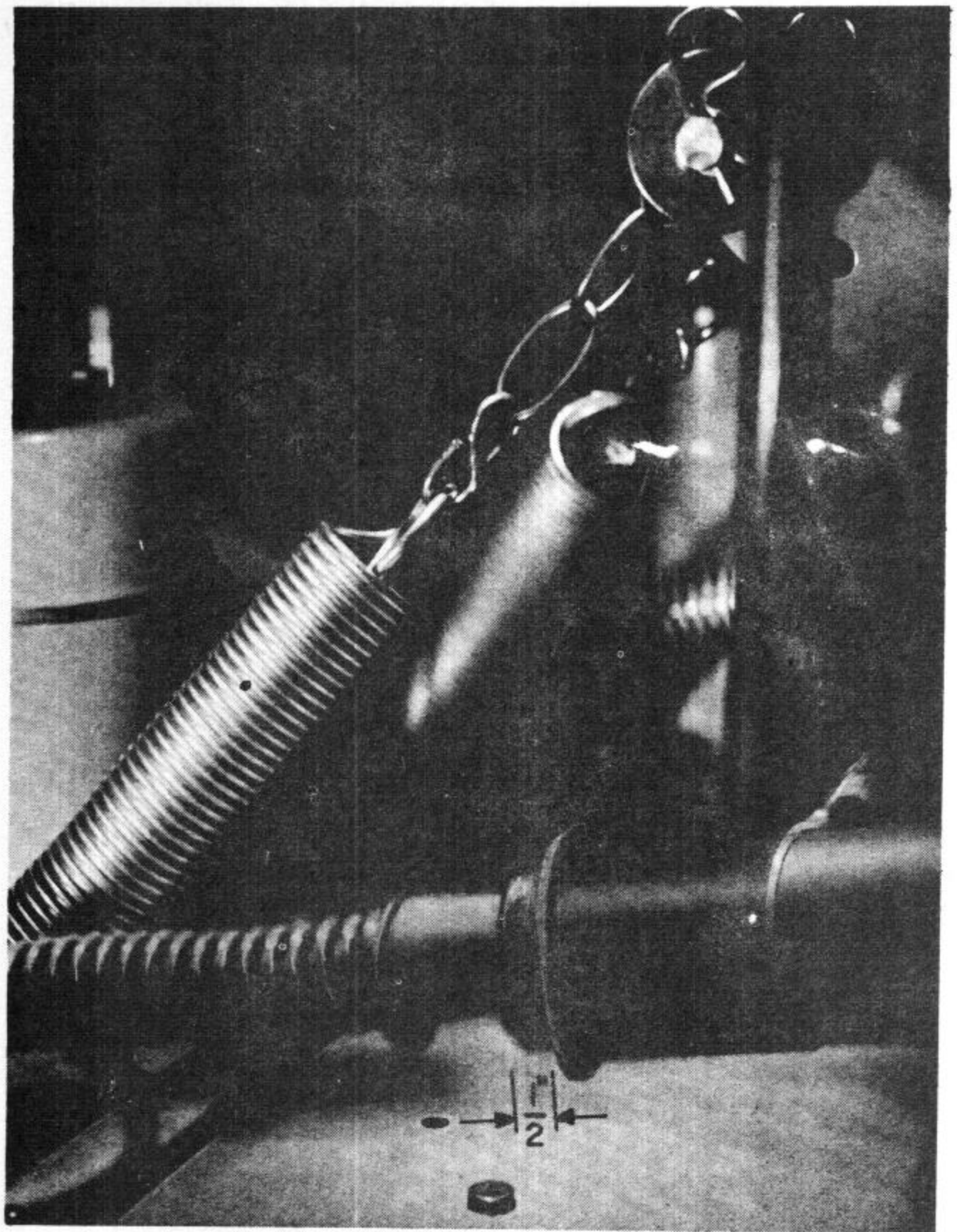


Figure 9

Refer to Figure 9, and install one large retaining ring on each arm 1/2-inch from the lower end of the main tube of the arm. This is easily done by marking the tube at the 1/2-inch point and pushing the ring over the tube with pliers while the arm is mounted to the tractor. The arm should then be temporarily removed from the tractor and one sleeve pushed over the main tube to the ring on each arm.

## MOWER ATTACHMENT

To attach the mower, refer to Figure 10 and take the following steps:

1. Center the mower in front of the tractor with the mounting arms rearward in the approximate mounting position.
2. Secure the mounting arms to the tractor frame with the clevis pins and hair pin cotters supplied with the mower. (See insert Fig. 10). Installation is eased by pushing the clevis pin back in flush to the frame side, then lining up the hole in the mower arm and pushing the pin through the arm.
3. Thread the lift strap over the front guide roller. Attach it to the mower lift clevis pin.
4. Lift the mower to its raised position and attach mower "helper" springs to either side of the front lift-guide axle using similar links on each chain extension. Secure with washers and hair pin cotters (See Figure 11). For normal conditions, the upper or center links should be used. If side hills are to be mowed, best results may be obtained using the lower links. This applies more of the mower weight to the front tractor wheels and permits better steering control.

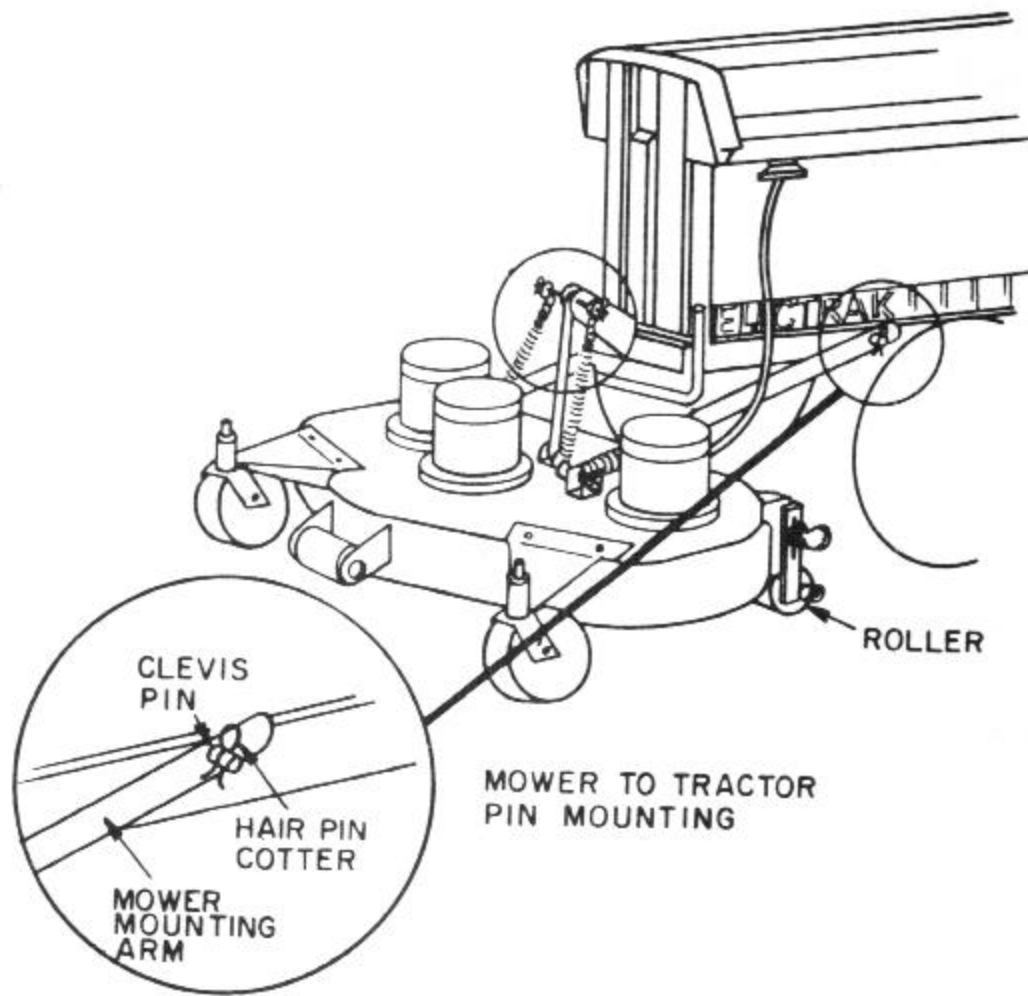


Figure 10

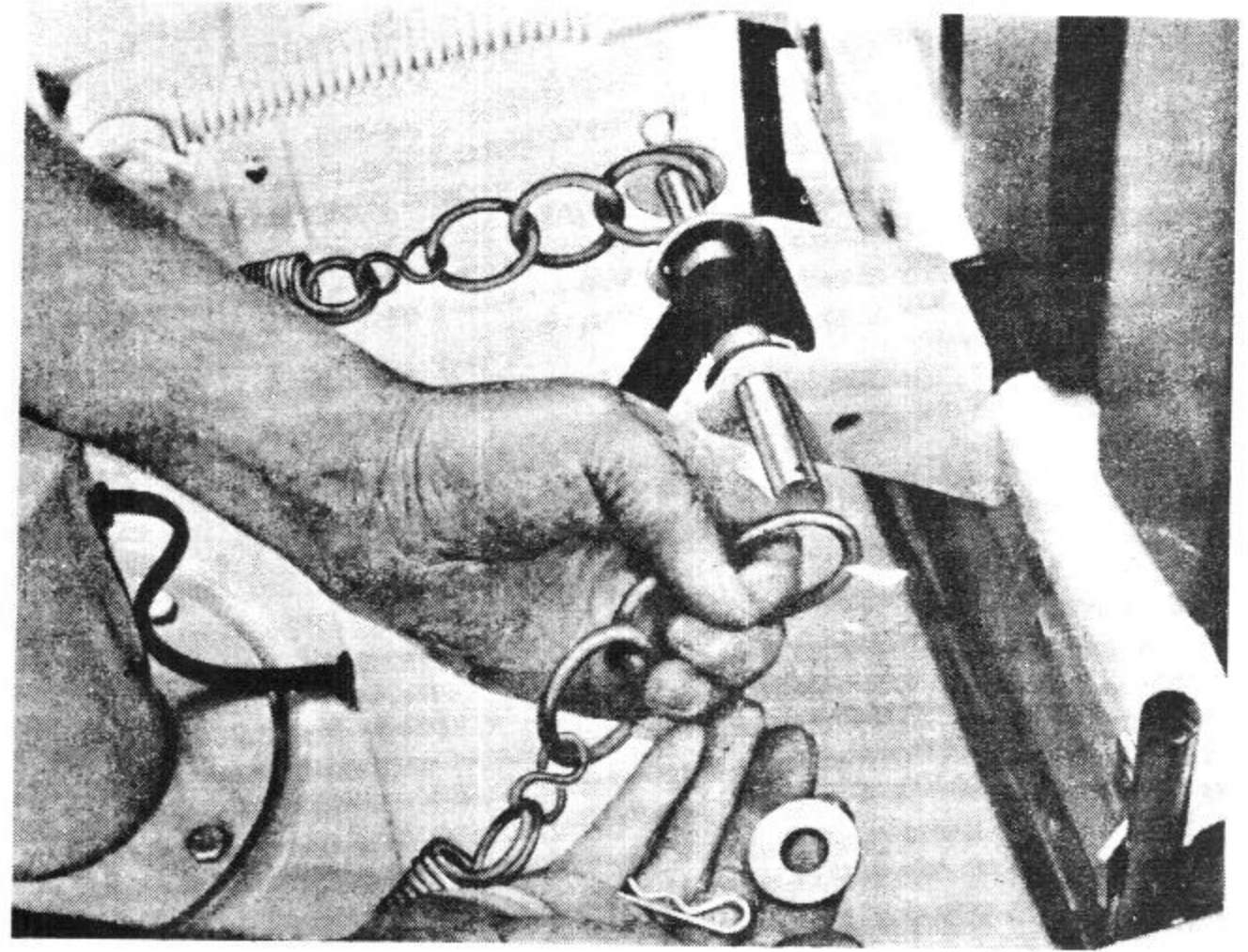


Figure 11

5. Lower the mower to the ground and allow slack in the lift strap. (The lift strap should have extra slack when the mower is used on hilly terrain so the mower can follow the uneven terrain.)
6. Stand clear of the mower and insert the power cord plug into the tractor PTO receptacle.

Removal of the mower follows the same steps in the reverse order.

**WARNING:** Never handle the mower or make adjustments while the power cord is plugged into the PTO receptacle.

## ADJUSTMENTS

The cutting height of the mower may be adjusted from 1 1/2-inches to 4-inches in 1/2-inch increments. Height adjustment is made as follows:

1. Remove the power cord from the PTO receptacle.
2. Raise the mower by the lift to its "Up" position.

3. Hold one of the front casters and remove its retaining pin.
4. Slide the caster downward free of the support.
5. Reassemble the caster with the desired number of 1/2-inch spacers below the support and the remaining spacers above the support. Secure with the plain washer and spring pin and adjust the other caster similarly.
6. Adjust the rear roller at each end. The number of holes on the roller adjuster above the guide pin should correspond to the number of spacers used under the caster support. If there are no spacers below (all five spacers on top), each side of the roller adjuster should be secured in the top guide pin hole. Using one spacer below the support requires the adjusters to be set in the second hole from the top, and so on.

## MOWER OPERATION

The operator must be seated on the tractor and the key switch turned to "On" before the PTO switch can be turned "On" to start the mower. An electrical interlock prevents mower starting if this procedure is not followed. Once the mower is running, if the operator leaves the seat, or turns the key switch to "Off," another interlock operates which not only interrupts mower power, but also stops blade rotation immediately by a dynamic braking action. To restart, the starting procedure must be repeated. For all normal use, the PTO switch should be used to turn the mower on and off.

For maximum drive motor torque and most efficient use of power, the speed control should be maintained in the recommended position whenever possible. Advancing the speed lever (or pedal) increases the speed on normal terrain, but may cause decreased speed when going uphill, because the motor torque is reduced. The D1 range is best for average to heavy mowing, and D2 may be used for lighter duty, faster mowing.

When mowing on steep hillsides, the travel should be up and down.

**WARNING:** Care should be exercised to avoid sudden starts and stops, which may cause loss of control. The tractor motor will offer some braking action provided the speed control is not returned to neutral. Maximum braking is obtained with the speed control in the drive position, or cruise control. Whenever operation on hillsides is required, the rear tractor wheels should be assembled in the "wide-tread" position for increased stability. (Refer to your tractor Operator's Manual.)

## CUTTING

Always mow with sharp blades. The blades can be sharpened in place on the Electric mower. Always disconnect the power cord before working on the mower. After several sharpenings the blades should be checked for balance. Unbalanced blades can shorten the life of the mower motor bearings.

For good appearance of the mowed lawn, it is important to have the mower adjusted correctly for height of cut. (See section on Adjustments.) Unequal adjustments can affect the cutting appearance because the blades will not be level.

After determining that the mower is set for level mowing as described above, the best height of cut should be determined. It is suggested that the use of two spacers below the caster support be tried first. Closer cutting can be obtained with fewer spacers, but care must be used not to scalp uneven parts of the lawn. As the cutting height is increased to more than 2 spacers, some types of grass and turf may begin to show the wheel tracks where the grass is long enough to be rolled down and not spring back up.

If the tractor tracks the lawn or gives a bumpy ride, check the rear tire pressure. The pressure should be 8-10 psi.

## GROUND SPEED

Average to heavy mowing should be done in the D1 range. Light mowing may be done in the D2 range if the tractor speed is not too fast. If the cut is not even and clean, the blades should be checked for sharpness or a lower speed or range selector position should be used.

If the mower motor becomes overloaded due to high grass, obstructions, clogging, or jamming, that motor may shut off momentarily. This occurs due to the opening of a circuit breaker which prevents motor damage. After a short interval for cooling, the circuit breaker will reset automatically and the motor will restart. If the breaker continues to interrupt motor power, after loading has been reduced, remove the power cord from the PTO receptacle and check the blades for clogged grass.

## CLEANING

It is recommended that the mower deck be cleaned after each use to maintain maximum mowing effectiveness and reduce the likelihood of blade clogging. Immediately after each use, expose the underside of the mower by lowering the mower, removing the power cord from the PTO

receptacle, and picking up the front edge of the mower using the handle. When positioned properly, the mower will stand freely in a nearly vertical position. In this position, cleaning is easily done by scraping the grass from the mower housing.

**WARNING:** Always disconnect power cord from PTO receptacle before handling the mower for any reason.

## SERVICE AND MAINTENANCE

Before handling the mower, remove the power cord plug from the PTO receptacle. Mower deck cleaning and blade sharpening can then be performed safely after lowering the lift to increase lift strap slack and lifting the front edge of the mower. When positioned properly, the mower will stand freely in a nearly vertical position.

### CASTER WHEELS

The front caster wheels must swivel easily for good performance in driving the mower, especially when trimming. Be sure to keep the caster spindles clean and free from rust. Any spindle which does not turn freely should be polished using emery cloth and oiled or greased.

### REAR ROLLER

The rod on which the rollers are mounted should be greased whenever it becomes noisy, however lack of grease will not affect its operation. To lubricate the rod, remove one of the adjusters and slide all rollers off the free end. Apply grease and reassemble.

### BLADE SHARPENING

Expose the blades as previously outlined. With the blades mounted, "touching up" may be done with a hand file; but care must be taken to grind equal amounts from the cutting edges of any blade to prevent unbalance.

### WEAR SLEEVE REPLACEMENT

The black plastic wear sleeves on the mower mounting arms should be periodically inspected and replaced if necessary. The replacement sleeves (part 120499) are low cost and should be replaced in pairs. With the mower removed from the tractor, the old sleeve can easily be slid off the mounting arm and a new one put in its place. Make sure the replacement sleeve is against the ring stop on the arm.