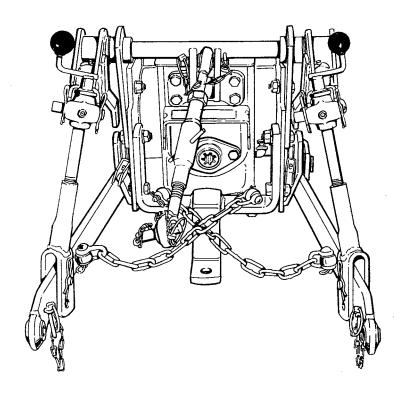
# OPERATOR'S MANUAL

# 3-POINT HITCH



3 PT. MODIFIED HITCH CATEGORY O MFG. NO. 1600220



CAUTION: Read Manual Thoroughly

**Before Operating** 

#### Dear Customer,

Congratulations on your purchase of this 3 point hitch. It has been carefully designed and built to give you years of dependable service. With proper care, it will help you do jobs efficiently.

To make sure you get the best use from your 3 point hitch, study this manual carefully. Make sure that it is installed properly, and that all adjustments are done correctly. Be sure that you (and anyone who operates this machine) know how to use this attachment safely. Read this manual and the tractor manual thoroughly and become familiar with all controls before operating.

For your own safety as well as others, study the safety rules in this manual and those in the tractor manual. Review this information often. It is there for your benefit and is important.

This manual describes how to install and adjust your 3 point hitch. If any help is needed with any of these procedures, your dealer will be happy to help you.

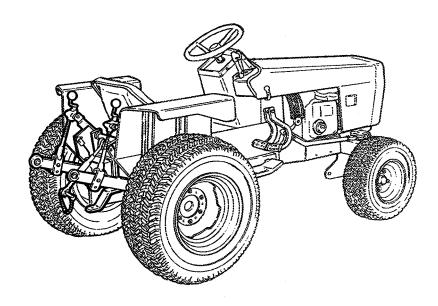
Measurements are given in this manual with metric equivalents in parentheses. For example, behind the measurement 1/8 inch would appear: (3 mm). So, the metric equivalent of 1/8 inch is 3 millimetres.

These metric measurements are provided for your convenience as an aid in converting to the metric system. A list of metric terms and abbreviations used in this manual is provided below.

LIST OF ABBREVIATIONS OF METRIC TERMS

1.  $N \cdot m = newton-metre$ 

## 3-Point Hitch



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Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of vehicle, severe personal injury to yourself or bystanders, or damage to property or equipment affecting safety.

## Safety Rules



This notation preceding Cautions and Warnings in the text signifies important precautionary steps which, if not properly followed, could result in personal injury or damage to your equipment affecting safety.

#### General

- Read the Operating and Service Instructions for both hitch and any mounted attachment carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- · Do not carry passengers.

- Use only attachments and accessories designed for your machine. See your dealer for a complete list of approved attachments and accessories.
- Make sure:
  - a. tractor and attachments are in good operating condition,
  - b. all safety devices and shields are in place and in good working condition,
  - c. all adjustments (height, etc.) have been made.

#### Preparation

- Handle gasoline with care it is flammable.
  - a. Use approved gasoline container.
  - b. Never remove the cap of the fuel tank or add gasoline to a running or hot engine, or fill the fuel tank indoors. Wipe up spilled gasoline.
- Do not run the engine indoors.
  Exhaust fumes are dangerous.

- Disengage all attachments and clutches and shift into neutral before attempting to start the engine.
- Wear heavy footwear. Do not operate tractor when barefoot or when wearing open sandals or canvas shoes.

#### Operation

- Always lower the hitch with attachments completely to the ground when leaving the tractor unattended to prevent it from being accidentally lowered and causing injury.
- Be especially careful not to touch tractor or attachment parts which might be hot
- from operation. Allow such parts to cool before attempting to maintain, adjust or service.
- Never attempt to adjust, repair or service the 3 point hitch while the tractor is running.

### Installation

#### CONTENT OF SECTION

Before it can be used, the 3 point hitch must be installed on your tractor. This section tells you how, step-by-step.

#### INSTALLATION

- 1. Unhook rod end of hydraulic cylinder from lift arm assembly by removing spring clip and pin (item A, figure 1).
- 2. Remove four flange nuts and capscrews (item B) and remove lift arm assembly (item C) from tractor. Save nuts and capscrews.

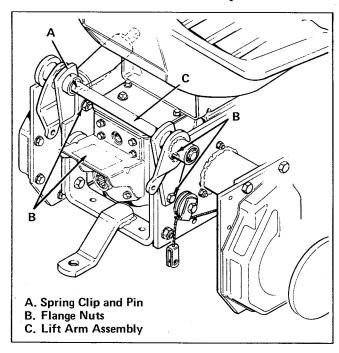


Figure 1. Lift Arm Assembly

- 3. To remove the right lift arm (item A, figure 2) push right lift arm toward center of rocker shaft (item B) to expose retaining ring (item C).
- 4. Remove retaining ring (item C), being careful not to damage or loose this ring. It will be used later. Slide right lift arm off end of shaft. This lift arm is no longer needed for the 3 point hitch.
- 5. To install right-hand lift arm and link assembly (item A, figure 3) be sure key (item B) is in

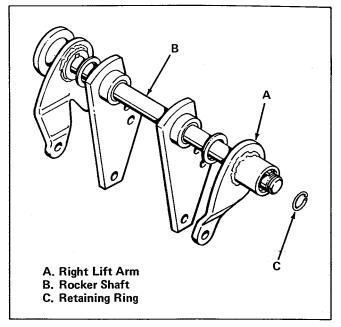


Figure 2. Right Lift Arm Removal

place. Line up the keyway in the right-hand lift arm and link assembly with the key in rocker shaft (item C), and slide the lift arm assembly onto the shaft.

- 6. Install retaining ring (item D) which was removed earlier in step 4.
- 7. Repeat steps 3 through 6 to remove left arm and to install left arm and link assembly.

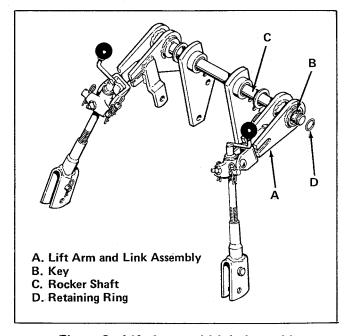


Figure 3. Lift Arm and Link Assembly

- 8. Install complete lift arm and linkage assembly (item A, figure 4) to the tractor frame by replacing four capscrews and flange nuts removed in step 2 (item B). While tightening these nuts, push forward on the rocker shaft (item C) to insure it will be secure and provide adequate clearance for the upper link assembly. Torque these nuts to 110 footpounds (149 N·m).
- 9. Attach rod end of hydraulic cylinder (item D) to left lift arm using pin and spring clip removed in step 1.

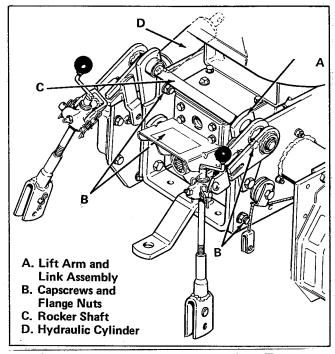


Figure 4. Install Lift Arm and Link to Tractor

10. Remove two capscrews (item A, figure 5) and lockwashers (item B) from tractor frame. Save lockwashers for the next step. Discard wire guide (item C) and two capscrews.

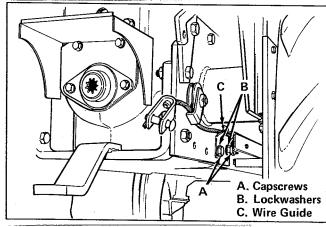


Figure 5. Capscrew Removal

11. Before installing right-hand pull strap (item A, figure 6) insert pin (item B) to rear hole of pull strap. Secure pull strap using two of the new (longest in bag) capscrews (item C) included with 3 point hitch. Use two lockwashers removed earlier in step 10. Torque capscrews to 75 foot pounds (100 N·m).

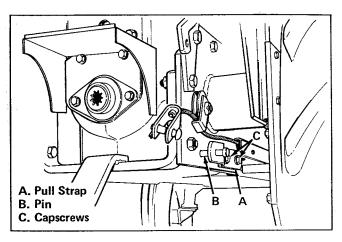


Figure 6. Install Right Hand Pull Strap

12. Install right-hand pull link assembly (item A, figure 7). Push pin (item B) out from pull strap towards tractor fender as far as possible. Install flat washer (item C), pull link assembly, and spacer (item D) between inside pull strap and outside tractor frame. Secure with spring clip inside tractor frame.

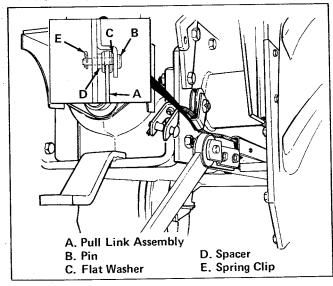


Figure 7. Install Pull Link Assembly

13. Repeat steps 10, 11 and 12 to install left-hand pull link and pull arm.

14. Remove nut (item A, figure 8) to remove right-hand pulley (item B) and wire guide (item C).

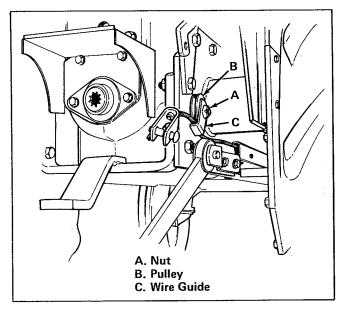


Figure 8. Pulley and Guide Removal

15. Install new right-hand rub bar (item A, figure 9) with hex nut (item B). Be sure the lift

cable (item C) is in place between the pulley and new wire guide welded to rub bar. Torque nut to 50 foot-pounds (67  $N \cdot m$ ).

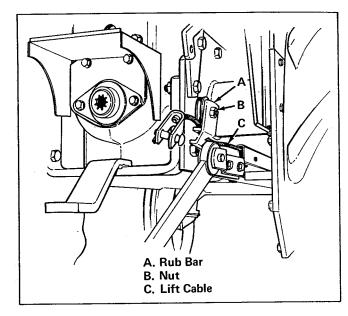


Figure 9. New Rub Bar Assembly

16. Repeat steps 14 and 15 to install new left-hand rub bar assembly.

- 17. Attach the pull link assembly to the lift link using two pins and spring clips (item A, figure 10). Fasten retaining chains to top of tractor drawbar with eyebolts (item B). When turning the locknuts, allow enough clearance between the nut and drawbar so the eyebolts will be free to turn in drawbar holes.
- 18. Cross the retaining chains and install two other eyebolts to pull link assembly (item C).
- 19. Remove four capscrews (item D, figure 10) from tractor transmission.

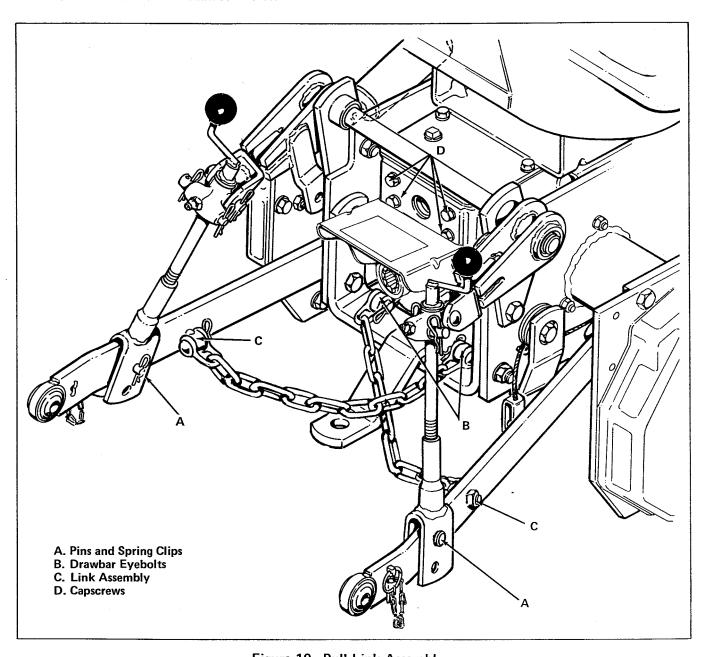


Figure 10. Pull Link Assembly

20. Install upper support link (item A, figure 11) using four new capscrews (shortest in bag).

#### NOTE

Capscrews must be coated with a sealant to prevent oil leakage from transmission. Use VC-3.

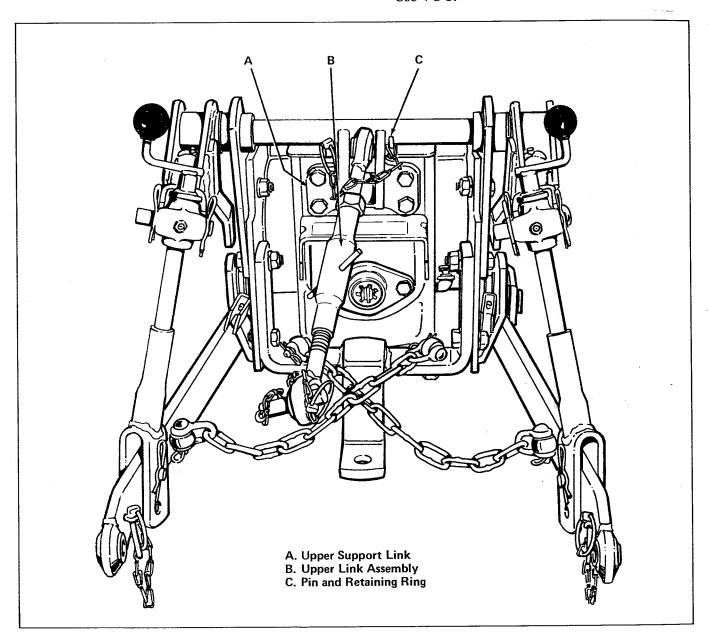


Figure 11. Upper Link Assembly

## **Operation**

#### CONTENT OF SECTION

A brief description of the 3 point hitch controls, followed by the basic operating procedures, is given in this section to help you get to know your 3 point hitch and how to use it safely and efficiently.

#### 3 POINT HITCH CONTROLS

The 3 point hitch is activated by a hydraulic cylinder, engaged by a hydraulic control lever from the



Before attempting to inspect, adjust or service the 3 point hitch or any attachments mounted to it, be sure the engine is stopped and the attachment is lowered to the ground. Remove ignition key.

operator's seat. Figure 12 shows the locations, names and functions of the controls directly mounted on the hitch. For additional controls, or a certain attachment like the rotary tiller, see the operator's manual for that attachment.

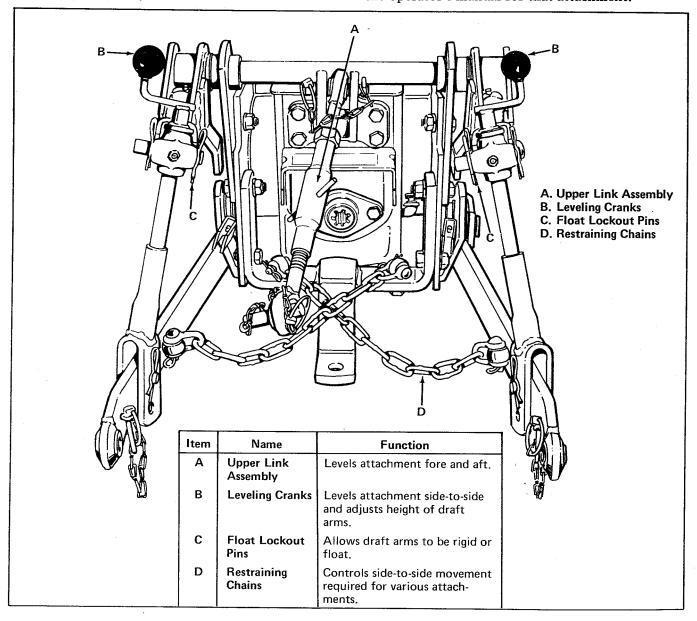


Figure 12. Locations and Functions of Controls

#### **3 POINT HITCH OPERATION**

#### UPPER LINK ASSEMBLY

The turnbuckle link is used to level the attachment fore and aft (tilt) when at its desired working depth. When hitching an attachment, turn the link to align the pin holes. Insert hitch pin.

#### LEVELING CRANKS

The two leveling cranks change the high and low limits of the pull arms to level an attachment. These leveling cranks are used for adjusting the height of the pull arms when hitching to an attachment.

#### FLOAT LOCKOUT PINS

When using attachments such as a rotary tiller, it is desirable to allow the pull arm to float (move freely up and down). To do this, remove the two spring clips (item A, figure 13) and set the lockout pins with the larger end (item B) of the pins exposed. Reinstall spring clips. For attachments requiring rigid pull arms, set the lockout pins with the small end (item C) exposed.

#### RESTRAINING CHAINS

The restraining chains are used to prevent an attachment mounted to a 3 point hitch from swinging too far left or right. The length of these chains may be controlled to suit the needs of various attachments. See attachment manual for adjustments.

#### REMOVING THE 3 POINT HITCH

#### NOTE

#### NO ATTACHMENTS INSTALLED.

The 3 point hitch may be easily removed from the tractor using these procedures:

- 1. Remove upper link anchor pin (item D).
- 2. Remove spring clips on two pins of each pull arm (item E). Slide pins out toward each fender. Remove pull arms and replace hardware in pins. Pins cannot be removed.
- 3. Remove two pins in rockershaft arms holding upper end of lower lift links (item F).
- 4. Remove two pins holding restraining chains to drawbar (item G).

#### NOTE

To reinstall, reverse the above procedure.

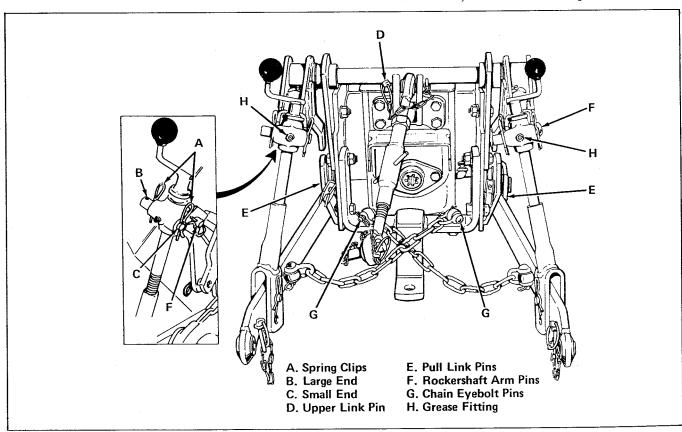


Figure 13. Removing 3 Point Hitch

## **Normal Care**

#### CONTENT OF SECTION

Your 3 point hitch was built to provide years of service with only minor care. However, these minor tasks must be done to prevent costly repairs.

#### AFTER EACH USE

After each use, check the hitch to ensure all pins

and spring clips are in place. Remove any excess dirt.

#### LUBRICATION

Each one of the two trunnions has a grease fitting (item H, figure 13). Grease as required for smooth operation. Light oil is recommended for threads on the upper link assembly.

## **NOTES**

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