INSTRUCTIONS

FOR

INSTALLING - OPERATING - ADJUSTING

THE MODEL F30

HYDRAULIC LIFT KIT

USED ON

CASE 220, 222, AND 442 $444 PK

COMPACT TRACTORS

INTRODUCTION

The Model F30 Hydraulic Lift Kit is designed for use on Case Model 220, 222, and 442 Compact Tractors.

This manual covers recommended operating procedures, safety suggestions, adjustments, maintenance information and installation instructions. Read this manual carefully before operating your hydraulic lift. Your J. I. Case Compact Tractor Dealer is well qualified to answer any further questions you might have concerning your hydraulic lift. Also, if the need should arise, his Service Department with factory trained technicians, genuine Case replacement parts and the proper facilities is in a position to provide proper repairs in the shortest time possible.

HI FOLKS! I'M SAMMY SAFETY. LOOK FOR ME TO POINT OUT IMPORTANT SAFETY PRECAUTIONS.

The definitions "Right, Left, Front and Rear" as used throughout this manual relate to the tractor and hydraulic lift as the operator is seated facing forward in the normal operating position on the tractor.

Always make certain the tractor PTO (Power Take Off) clutch is disengaged before starting the engine and when transporting any power driven attachment.

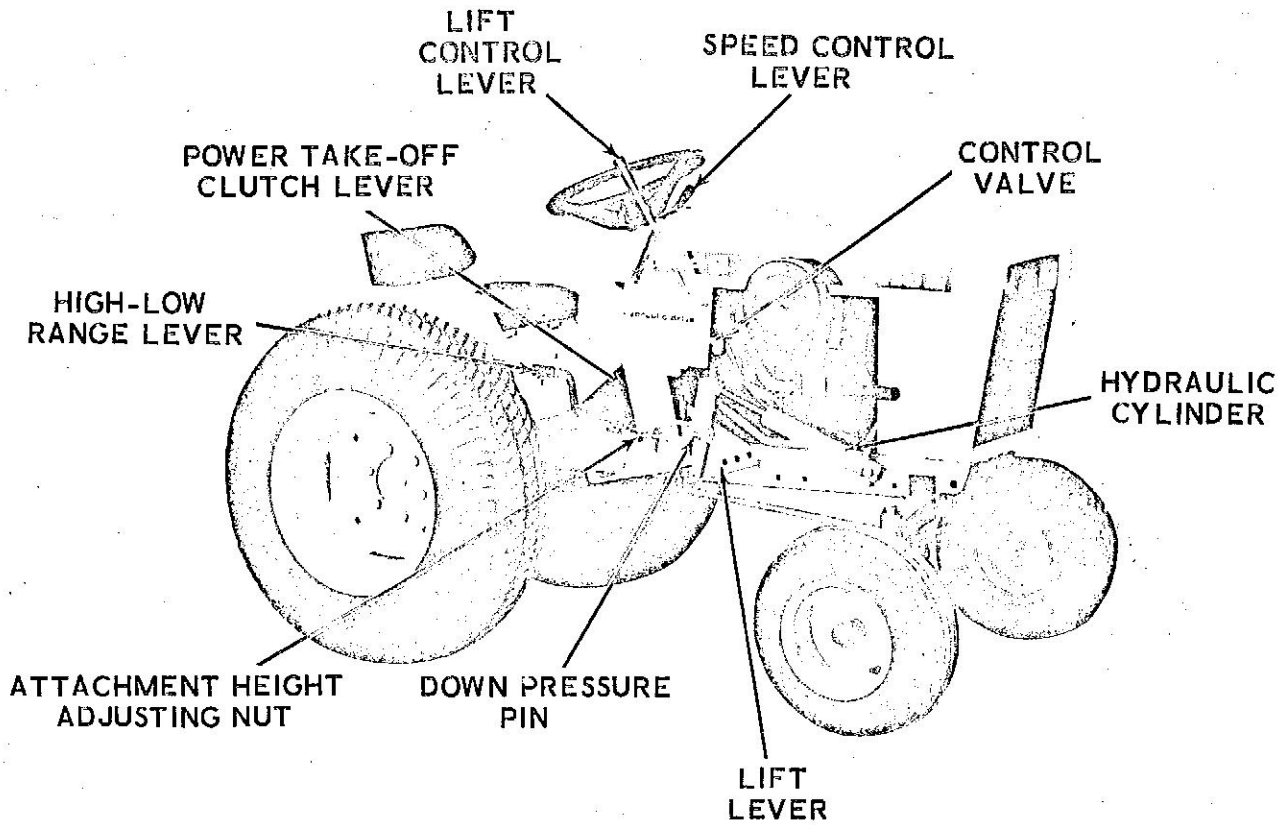

Figure 1. Identification of Principle Components and Controls

1. The principle components and controls of the tractor and hydraulic lift kit are identified in Figure 1 with the same description used throughout this manual.

2. Oil all of the pivot points on the hydraulic cylinder and lift lever shaft daily when the tractor is in use.

3. Pull back on the lift control lever, Reference "A", Figure 2, to raise the attachment. To lower the attachment push the lever ahead. The control valve has a centering spring which returns the lever to neutral from either the "raise" or "lower" position. The speed at which the attachment is raised or lowered can be controlled by the amount of back or forward movement on the control lever. You may find it helpful, when very close control of the attachment is necessary, to use the steering wheel or the rear of the hood as a support for your hand when moving the lever.

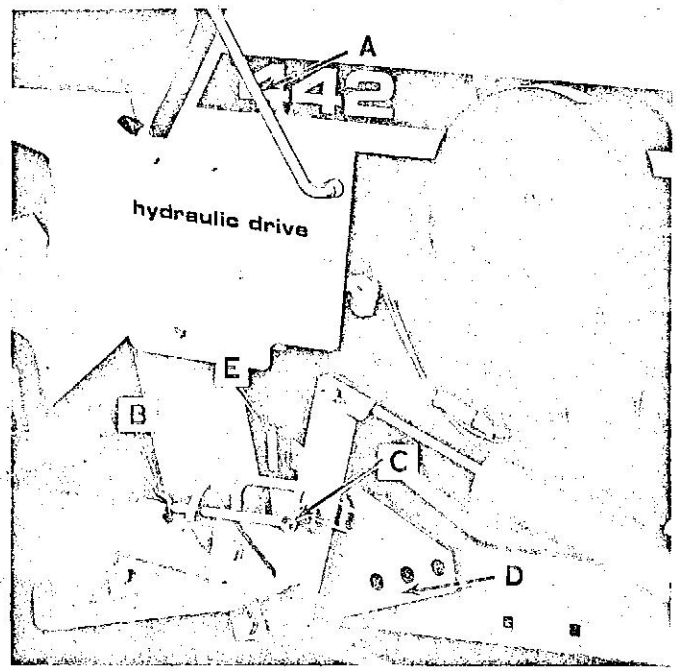

Figure 2. Operation and Adjustment

4. The wing nut, Reference "B", on the hydraulic lift adjusting rod is used in the same manner as the wing nut on the standard mechanical lift lever for setting the minimum operating height of an attachment. Turn the wing nut further on the rod threads to raise the minimum operating height. Back off on the wing nut to lower the minimum operating height.

5. The "Down-Pressure" pin, Reference "C", has two positioning holes anchored by a safety pin.

   When the clevis pin is at the outer setting as illustrated, the attachment will "float" when the cylinder is closed. In "float" position the pin is disengaged from the inner lift lever, Reference "D", thereby allowing it to move up and down independently of the outer lever and the cylinder.

   The inner lever has a flange, Reference "E", welded to the back side which raises the attachment to the transport position when the "down-pressure" pin is in the outer "float" setting.

   When the "down-pressure" pin is pushed in and through the inner lever "D", the attachment is lowered and held by hydraulic pressure. In this position the pin locks the outer lift lever to the inner lever. The hydraulic cylinder will now rigidly hold the attachment at any height set by the lift control lever.

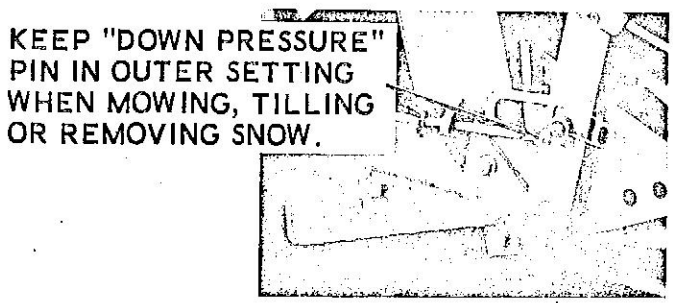

Figure 3. Down Pressure Pin

CAUTION The "down-pressure" pin must be set in the outer "float" position for mowing, snowcasting and tilling where the attachment must follow the ground contour. Damage to the attachment and hydraulic lift mechanism as well as poor performance can result if these attachments are operated with this pin in the "down-pressure" position.

This pin may be used in the "down-pressure" position for some dozing and blade operations but is not recommended for snow dozing.

6. When the Hydraulic Lift Kit is first installed on the tractor, the hydraulic reservoir oil level must be checked following the first few minutes operation. Operate the Lift Control Lever in both directions to fill the hoses, lines and cylinder with oil. Maintain the hydraulic reservoir oil level between two and three inches from the top of the filler opening. Normally about one additional quart of oil will be required when the Hydraulic Lift Kit is initially installed. Refer to the tractor Operator's Instruction Manual for the recommended oil specifications. Check the oil level periodically.

7. Check each of the hydraulic connections after the first few minutes operation for oil leakage. Check again after five to ten hours of operation to make certain they are all seated. Once the connections are properly seated, further adjustments are unnecessary.

8. A protective coating of oil will remain on the piston rod each time the cylinder is extended. This can eventually accumulate at the rod end of the cylinder tube. Wipe any excess of oil off the cylinder tube as necessary.

INSTALLATION

A. Locate the tractor on a clean surface.

B. Before installing the Hydraulic Lift Kit, lay out the components on a clean surface. To simplify the original installation, all components are preassembled as far as practical.

C. THE NUMERICAL REFERENCES ON THE ILLUSTRATIONS CORRESPOND TO THE INSTALLATION INSTRUCTION PARAGRAPH NUMBERS.

NOTE When disconnecting oil lines or hoses on the tractor, place a clean container under the connection to prevent the oil in the lines from draining on the floor, The tractor hydraulic reservoir must be drained.

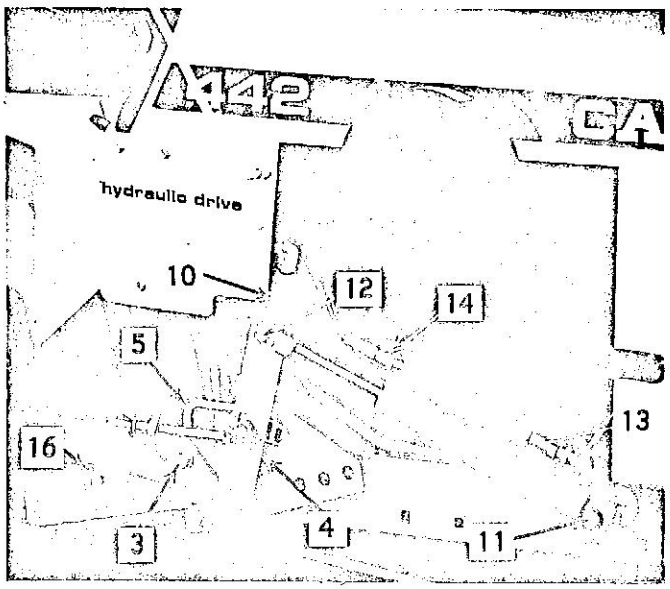

Figure 4. Hydraulic Lift Assembly

1. Drain the hydraulic reservoir into a clean pan of at least 6 quarts capacity. The drain plug is located at the bottom side of the tractor control valve. See Figure 5.

NOTE Perform paragraphs 2 through 4 while the reservoir is draining.

2. Remove the tractor mechanical lift lever assembly as follows:

   a. Remove the battery.

   b. Remove the 4 screws from the upper steering support.

   c. Remove the foot pads.

   d. Disconnect the brake rod, raise up speed control lever to clear the "return-to-neutral" bracket from the brake pedal rod and remove the brake pedal.

   e. Remove the left lift lever and Woodruff key from the implement lever.

   f. Remove the implement lever and shaft assembly.

   g. Remove the implement lever adjusting bolt housing.

   h. Remove the right rear side panel.

3. Secure the stop bracket to the tractor frame as shown in Figure 4 using the two 3/8" x 7/8" hex head bolts, nuts, and lockwashers.

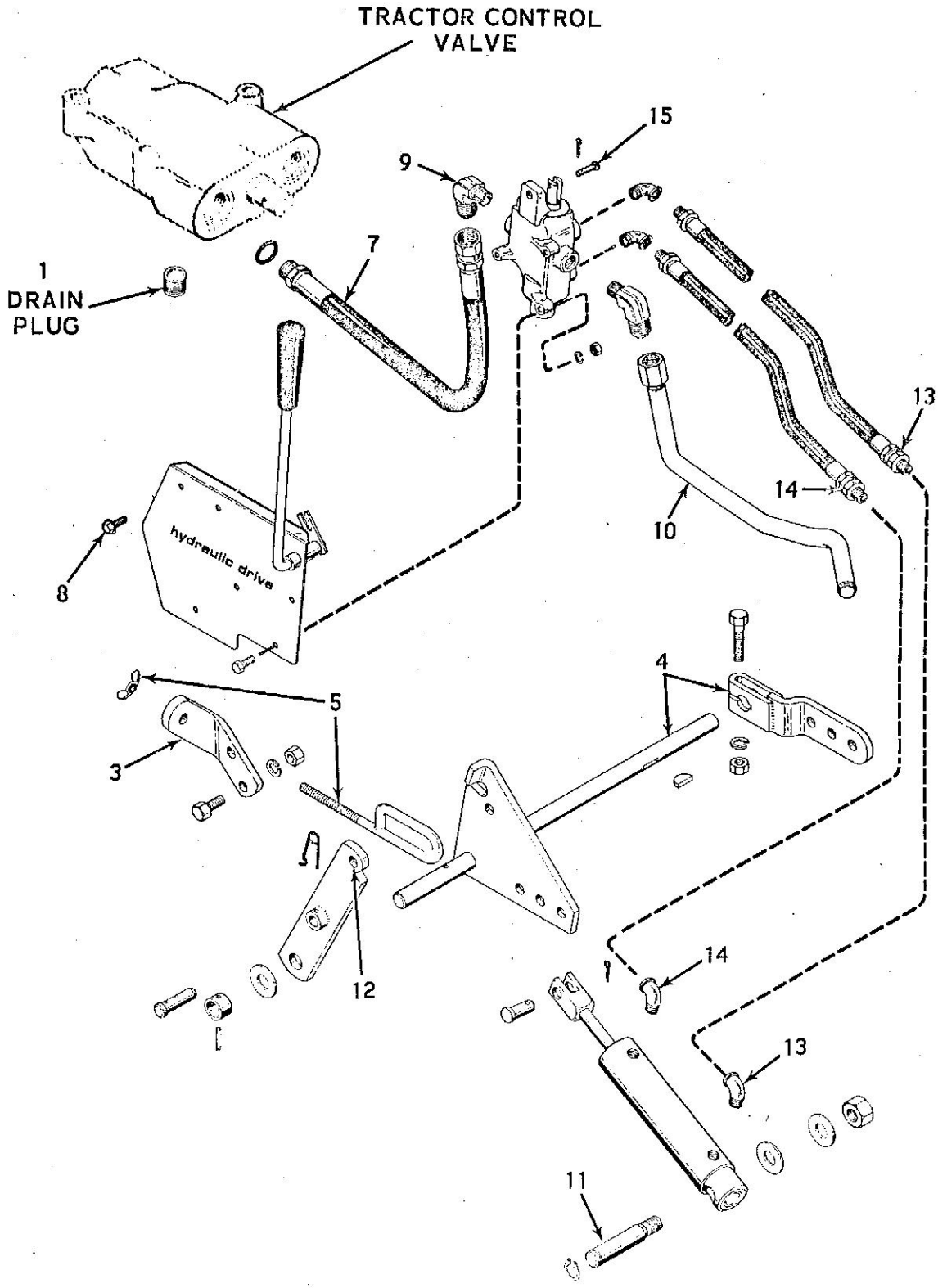

Figure 5. Exploded View, Hydraulic Lift Assembly

4. Slide the hydraulic lift lever shaft through the tractor frame and reassemble the original tractor left lift lever using the new Woodruff key provided. Then install the brake pedal and foot rest. Make certain the vertical rod of the brake pedal is placed back inside the "return-to-neutral" bracket on the speed control lever. Replace the four screws in the upper steering support.

5. Insert the height adjusting rod through the stop bracket and install the wing nut.

6. Providing the hydraulic reservoir has drained, secure the plug back into the tractor control valve. Remove the oil line between the right front port of the tractor control valve and the heat exchanger. Also remove the fitting from the valve support.

7. Remove the three mounting bolts from the lower steering support bracket and insert the male end of the large hose between it and the tractor frame. Make sure there is an O ring on the male end of the hose and secure it to the right front valve port. Install the three bolts back on the lower steering support bracket.

8. Mount the hydraulic lift valve and panel assembly to the right side of the tractor dash with the three new 1/4" self-tapping screws furnished. Note the routing of the choke and throttle cables in Figure 6.

9. Secure the hose previously installed on the tractor valve to the elbow at the rear side of the power lift valve.

10. Place the new return line tube behind and under the engine and insert the plain end loosely into the heat exchanger hose. Secure the tube adapter to the elbow at the front end of the hydraulic lift valve. Tighten the clamp on the heat exchanger hose. Reinstall the battery.

11. Remove the 5/8" hex nut and 1 plain washer from the stud at the pivot end of the cylinder. Insert the stud through the tractor frame as shown in Figure 4 and secure with the plain washer and hex nut.

12. Connect the cylinder rod to the top hole in the outer lift lever with the clevis pin and cotter pin.

Figure 6. Choke and Throttle Cable Routing

13. Secure the hose from the upper side port of the lift valve to the elbow at the pivot end of the cylinder.

14. Secure the hose from the lower side port of the lift valve to the elbow at the rod end of the cylinder.

15. Connect the lift control lever to the valve spool with the clevis pin and cotter pin.

16. Install the right hand foot rest, placing the spacer furnished between it and the tractor frame and secure with the 5/16" x 1-1/4" cap screw, lockwasher, and nut.

17. Install the "POWER LIFT" decal over "ATTACHMENT LIFT" on the dash panel.

18. To facilitate assembly the lift lever shaft is shipped unpainted. This shaft and the area on the tractor frame from which the mechanical lift lever assembly and the right foot rest were removed should be touched up with Case "Flambeau Red" paint to prevent rusting.

19. Strain the oil which was drained to remove any foreign material and pour it back into the reservoir. Start the tractor and operate the cylinder to full open and closed positions several times to expel all air from the system. Shut off the tractor and check for oil leaks at all connections. Check the oil level in the reservoir and add if necessary to bring to between 2 and 3 inches from the top of the filler port.

NOTE The J. I. Case Company reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.