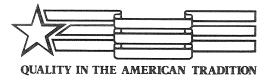


HYDRAULIC PTO KIT HP30, HP40 Operator's Manual 8-56381

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Ingersoll Equipment Co., Inc.

Winneconne, Wisconsin 54986-9576



This Safety Alert Symbol Indicates Important Safety Messages In This Manual When You See This Symbol Carefully Read The Message That Follows and Be Alert To The Possibility Of Personal Injury Or Death

IF THIS MACHINE IS USED BY AN EMPLOYEE OR IS LOANED OR RENTED, MAKE ABSOLUTELY CERTAIN THAT THE OPERATOR(S), PRIOR TO OPERATING:

- 1. IS INSTRUCTED IN SAFE AND PROPER USE.
- 2. REVIEWS AND UNDERSTANDS THE MANUAL(S) PERTAINING TO THE MACCULE.



FORE STARTING ENGINE

STUDY OPERATOR'S MANUAL SAFETY MESSAGES READ ALL SAFETY SIGNS ON MACHINE CLEAR THE AREA OF OTHER PERSONS

LEARN & PRACTICE SAFE USE OF CONTROLS BEFORE OPERATING

IT IS YOUR RESPONSIBILITY TO UNDERSTAND AND FOLLOW MANUFACTURER'S INSTRUCTIONS ON MACHINE OPERATION, SERVICE, AND TO OBSERVE PERTINENT LAWS AND REGULATIONS. OPERATOR. AND SERVICE MANUALS MAY BE OBTAINED FROM YOUR EQUIPMENT DEALER.

SAFETY RULES

CAUTION: Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pinhole leak, can penetrate body tissues causing serious injury. Use a piece of wood or cardboard when looking for leaks - never use the hands or other parts of the body.

Relieve hydraulic pressure before disconnecting circuits. When reassembling, make absolutely certain that all connections are tight.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious complications may arise if medical attention is not given at once.



Remember, a careful operator is always the best insurance against an accident.

Always give complete and undivided attention to the job at hand.



CAUTION: Only operate controls while in the operator's position.



WARNING: Be sure the Hydrautic PTO lever is in the neual position before starting the tractor. This control is NOT equipped with a neutral start switch and accidental engagement of the attachment could cause injury.

MPORTANT: Alva's install new decals wheneven the old decals are destroyed,
is painted over or illegible.
When individual parts are replaced that have decals attached,
be sure to install a new decal with
the new part. Decals are available
from your authorized dealer.



INTRODUCTION

The Hydraulic Power Take Off is intended to be installed on the following tractors:

PTO

TRACTOR MODEL

HP30

3010, 3012, 3014, 3016, 3018

HP40

4014, 4016, 4018, 4020

This manual contains recommended operating procedures, safety rules, assembly and mounting instructions. Read this manual carefully before operating your hydraulic PTO.

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

NOTE:

Ingersoll Equipment Company, Inc. 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.

OPERATING INSTRUCTIONS

Moving the Hydraulic PTO handle forward causes the attachment to rotate forward (or in the normal operating direction). Moving the handle rearward will cause opposite motion. If the rotation is the opposite of this, refer to the Mounting section of your attachment operator's manual for proper valve to attachment motor hose hookup.

NOTE:

Some attachments can not be operated in reverse rotation. Consult the attachment operator's manual for proper operation.

Always move the PTO handle full travel to insure maximum speed and power to the attachment unless otherwise indicated in the attachment open manual.

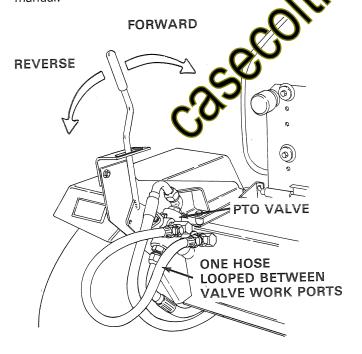


FIGURE 1



Remember, a careful operator s the best insurance accident.

give complete and ivided attention to the job hand.



CAUTION: Only operate controls while in the operator's position.

The Hydraulic PTO may be left on the tractor when the attachment is removed.

VERY

Only operate the tractor with attach-IMPORTANT ment hoses connected or one hose looped between the valve work ports.

> Failure to observe this procedure will result in oil loss (ports left open) or pump damage (ports plugged) if the valve is actuated.

The Hydraulic PTO may be used to drive other hydraulically driven devices. Consult your dealer for further information.



WARNING: Be sure the Hydraulic PTO lever is in the neutral position before starting the tractor. This control is NOT equipped with a neutral start switch and accidental engagement of the attachment could cause injury.

INSTALLATION

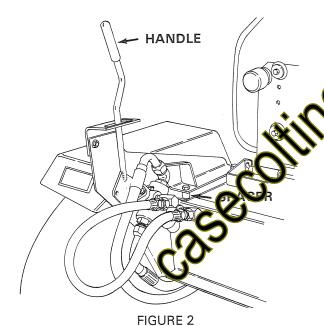
- 1. Remove the belly pan from the tractor.
- Place a clean pan under the tractor travel valve and pump. Put the travel valve into the full forward position to prevent the reservoir from draining.

Place a piece of airtight plastic under the reservoir fill cap.

NOTE:

Make sure to remove the plastic from under the reservoir fill cap before operating the tractor.

- 3. See Figure 2. Install the valve mounting bracket to the left hand fender mounting bolts.
 - A. For HP30, use the longer bolts and spacers provided. Place the spacers between the fender and valve mounting bracket as illustrated.
 - B. For HP40, use the shorter bolts and no spacers.



- 4. Install the valve handle with the offset forward for all applications except the wood splitter. Adjust the top bracket so the handle can engage the forward notch. For wood splitter operation only, install handle with offset facing rearward. When the handle is installed with the offset facing rearward, it should not engage the forward notch on the top bracket.
- 5. For use with the hydraulic vacuum or hydraulic cutter, install the lock out spacer so handle can not be moved rearward. Figure 3 shows the lock out spacer installed.

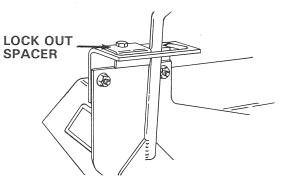


FIGURE 3

CAUTION: Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pinhole leak, can pine trate body tissues causing a vious injury. Use a piece of wood or cardboard when looking for leaks - never use the hands or other parts of the body.

Relieve hydraulic pressure before disconnecting circuits. When reassembling, make absolutely certain that all connections are tight.

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious complications may arise if medical attention is not given at once.

 See figure 4. Remove the hose from between the hydraulic pump and the travel control valve. Note the routing of the hose around the hydraulic lift rockshaft.

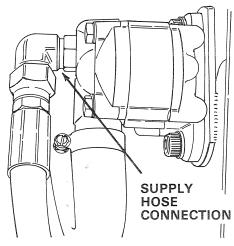


FIGURE 4

7. Install the new longer supply hose from the pump outlet around the hydraulic lift rockshaft, along the L.H. frame rail above the hydraulic motor, between the two speed transaxle shift lever and shift rod to the inlet port of the PTO valve. Leave fittings loose at this time.

NOTE: Lubricate the flare ends of these tubes with oil or grease to prevent tube from rotating during final tightening of fitting.

8. Install the return hose from the outlet port of the PTO valve along side the supply hose to the inlet port of the travel control valve. Leave fittings loose at this time.

- 9. For 3000 Series Tractors: Refer to Figure 5.
 - a. Position the hoses side by side under the left frame rail with the supply hose to the outside and the return hose to the inside.
 - Position the clamp as shown. Position the rear clamp in the hole in the rear seat support.
 - c. Centerpunch and drill a 5/16" hole in the left frame rail using the hole in the clamp as your guide.
 - d. Bolt the clamp with hoses in position.
 - e. Install tie wraps where indicated.
 - f. Tighten all fittings.

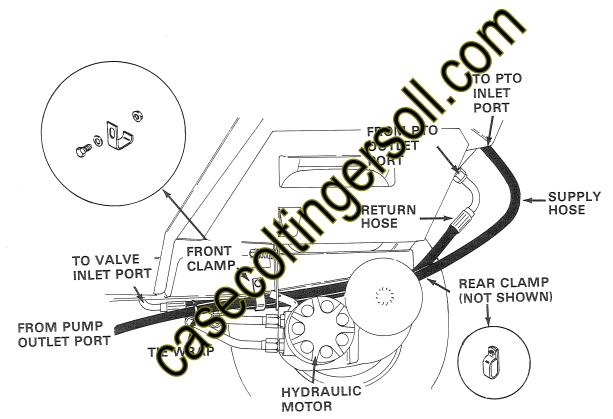


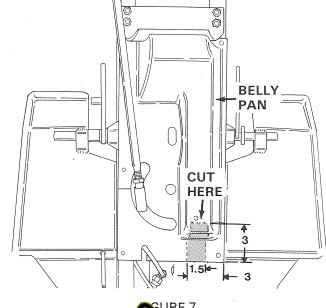
FIGURE 5 3000 Series

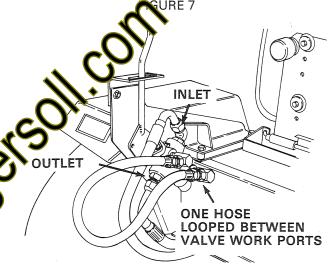
- 10. For 4000 Series Tractors Refer to Figure 6.
 - a. Position the hoses on top of each other along the outside of the left frame rail with the supply hose on top and the return hose on the bottom.
 - b. Position the clamp as shown.
 - c. Centerpunch and drill a 5/16" hole.
 - d. Bolt the clamp with hoses in position.
 - e. Install tie wraps where indicated.
 - f. Tighten all fittings.

IMPORTANT: Check all hydraulic fittings for tightness. Be sure pump outlet hose does not interfere with steering gear, frame rail, travel lever or attachment lift cylinder or rock shaft.

VERY
If the hydraulic attachment is not IMPORTANT being installed at this time, one hose must be looped between the PTO valve work ports. Failure to observe this procedure will result in oil loss (ports left open) or pump damage (ports plugged) if the valve is actuated.

11. Cut away the left rear end of the belly pan. The is done to provide clearance for the hoses in fector Figure 7.





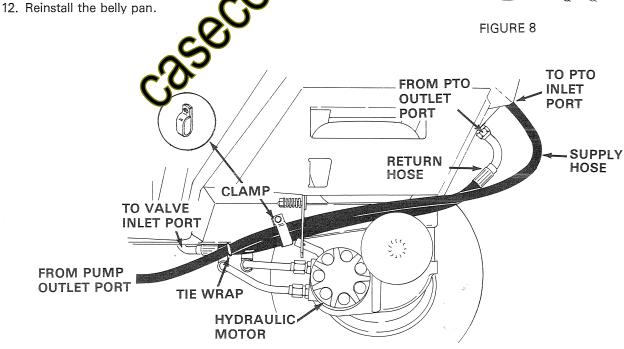


FIGURE 6 4000 Series