

# **TD92 PTO UPDATE CONVERSION**

**PART NO. 522407** 

## REPLACES CONSTANT VELOCITY (CV) PTO SHAFT



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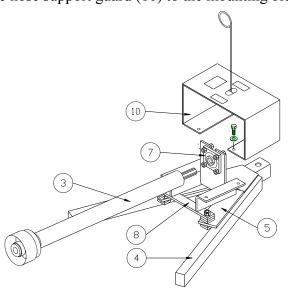
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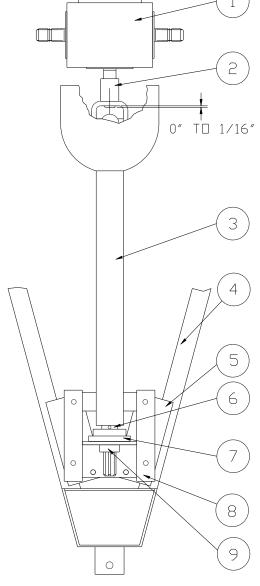
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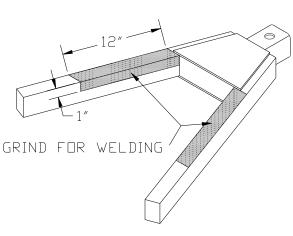
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#### INSTALLATION INSTRUCTIONS FOR TD92 PTO DRIVELINE UPDATE:

- 1. The following tools are required for this installation: small hand grinder, welder, <sup>3</sup>/<sub>4</sub>" wrenches, 5/32" allen wrench and tape measure.
- 2. Use the grinder to remove the paint from the hitch (4) as shown in sketch.
- 3. Remove the PTO spacer (9) from the end of the shaft (3).
- 4. Take the intermediate shaft and slide the end with the bell shielding onto the main gearbox (1).
- 5. Take the PTO mounting bracket assembly (8) and set it on top of the hitch, sliding the PTO end through the flange bearing (7). Note the position of the flange bearing. Must be on the back side.
- 6. Make sure the PTO shaft is tight up against the flange bearing and tighten the two set screws (6) in the bearing.
- 7. Position the complete unit on the hitch so the PTO mounting bracket is centered on the hitch, side to side, and then slide forward or backwards until the main gearbox (1) shaft is flush or extended 1/16" inside the PTO yoke (2).
- 8. Tack weld the mounting plates to the hitch rails, and check all dimensions.
- 9. Unbolt the PTO mounting bracket (8) from the mounting plates (5) and remove both the bracket and the PTO shaft.
- 10. Finish welding the mounting plates to the hitch.
- 11. Clean and paint the mounting plates. Use International Harvester red spray paint (IH2150 RED) for best match.
- 12. Remount the PTO and PTO mounting bracket to the hitch. Follow the instructions to ensure proper set up and shaft alignment to suit your tractor.
- 13. Be sure to install the PTO spacer back (9) on the PTO shaft end (3) before installing the input PTO.
- 14. Bolt the hose support guard (10) to the mounting bracket.







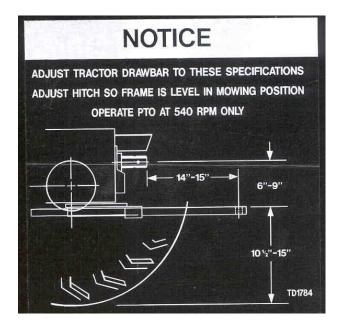
### **MOWER SETUP FOR OPERATION:**

## **HITCHING TO TRACTOR:**

#### **CHECKING DRAWBAR SETTING:**

Before hitching the mower to the tractor, a number of conditions must be checked. Having the proper hitching dimensions for the tractor drawbar and the PTO, will ensure long and trouble free hours of operation with this PTO driven mower. Incorrect setup will damage the driveline components prematurely.

The following decal is mounted to the machine.



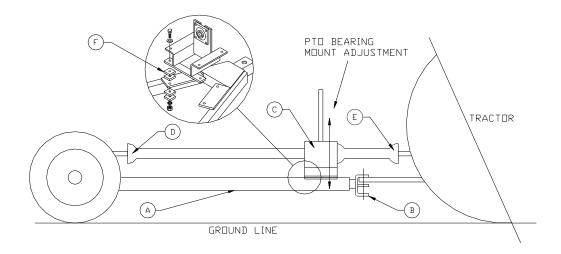
#### **Two important dimensions for the tractor:**

- a) The drawbar length must be adjusted so it is 14" to 15" from the end of the PTO shaft to the center of the drawpin.
- b) The top of the drawbar must be adjusted so it is 6" to 9" from the center of the PTO shaft to the top of the drawbar.

#### **LEVELLING THE MOWER & PTO:**

For proper mower operation and maximum PTO life, the mower hitch and PTO driveline must be setup correctly.

- a) When the mower is connected to the tractor, the mower hitch frame "A", should be as close to level with the ground as possible.
- b) The connecting hitch "B" can be removed and turned over to give more height adjustments. Set in the best position for the mower frame to be level as possible.
- c) To ensure proper life of the PTO shaft, the driveline from the mower gearbox "D" to the PTO shaft "E" on the tractor should be in a straight line.
- d) Spacers "F" are provided under the hose support "C", to allow adjustment up or down. Each spacer is ½" high. Sixteen are provided, for a 2" total adjustment, four on each corner.



#### **CONNECTING THE PTO SHAFT:**

- a) Ensure that the tractor engine is shut off and the parking brake is locked.
- b) Holding the PTO against the end of the tractor PTO shaft, rotate the tractor PTO by hand until the shaft slides on slightly.
- c) Slide the locking collar on the PTO backwards, releasing the locking mechanism, hold and slide the PTO on.
- d) Release the locking ring and pull the PTO shaft backwards until the locking mechanism snaps into place.
- e) Push the shaft forward and backwards to ensure that it is securely locked in place.



<u>CAUTION</u>: If the PTO shaft comes off during operation, it may cause personal injury and damage to the PTO shaft and tractor PTO. When checking, make sure the locking collar is locked, and that the shaft is not just jammed against the end of the tractor PTO shaft.

#### **CHECK PTO LENGTH DURING TURNS:**

During the mowing operation the tractor should be able to make turns without damage to the driveline. To ensure proper setup check the following conditions:

- a) With the tractor in the lowest gear and travelling very slowly, make a sharp turn to the right.
- b) Watch the PTO shielding to make sure the PTO shaft does not totally collapse. There should be 1" to 2" of black PTO shielding left at maximum turn. Fig. 1
- c) If there is more or less shaft showing, check the distance of the drawbar to the tractor PTO shaft. It should be between 14" to 15" from the end of the PTO shaft to the center of the drawpin hole.



Figure 1

**NOTE:** This is not the worst condition. Making turns while the tractor is angling up a hill will cause the PTO shaft to collapse even more. The operator should avoid making sharp turns on uneven ground.