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# **WARNING!**

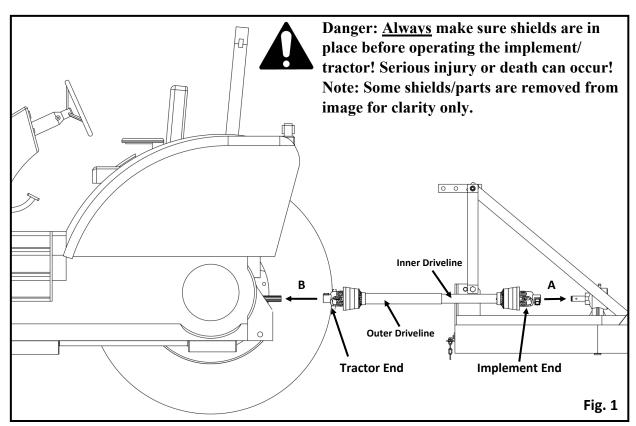
- PTO Drivelines are potentially dangerous and can cause serious bodily injury or death.
- Do not wear loose fitting clothing that could become entangled in the PTO Driveline.
- Always take precautions, wearing proper personal protection (gloves, safety glasses) when adjusting or repairing a PTO Driveline.
- Always disengage the PTO Driveline and stop the tractor before making any adjustments or repairs.
- Keep bystanders away from tractor and equipment.
- Always be aware of your surroundings including, people (especially children), animals and objects when operating the tractor and implement.
- It may be necessary to shorten the PTO Driveline depending on the application. If you are not confident in modifying the PTO Driveline, contact a Qualified Professional.
- This is only a supplement and is not meant to replace the tractor, implement or PTO Driveline manuals. Always refer to the tractor, implement and PTO Driveline manuals first.



### **Instructions for Installing a PTO Driveline:**

#### (Refer to Fig. 1)

- 1. Begin by parking the tractor and implement on a level, solid surface. Attach the implement to the tractor's hitch arms, upper and lower. Adjust the tractor's 3-point hitch so that the tractor's output shaft is level with the implement's input shaft.
- 2. Leave the tractor in gear, shut off the tractor engine, remove the key and set the park brake. Block the implement to prevent it from falling over or shifting.
- 3. Slide the inner yoke of the PTO shaft 'A' (implement end) onto the input shaft of the implement. Make sure the yoke is securely locked in place.
- 4. Slide the outer yoke of the PTO shaft 'B' (tractor end) onto the tractor input shaft. Make sure the yoke is securely locked in place.
- 5. Because of differences in tractor 3-point arms and implements, it may be necessary to shorten the PTO Driveline. See page 4 for "Instructions for Shortening a PTO Driveline".
- 6. Check that the PTO Driveline yokes are securely attached to the tractor and implement before operating. PTO Drivelines not attached properly can cause serious injury or death!
- 7. If your PTO Driveline shields are equipped with chains, secure the chain to the tractor and or implement to prevent the shield from rotating.
- 8. Before starting tractor and engaging the PTO Driveline, make certain there are no people or animals between tractor and implement. Rotating PTO Drivelines can cause serious injury or death!





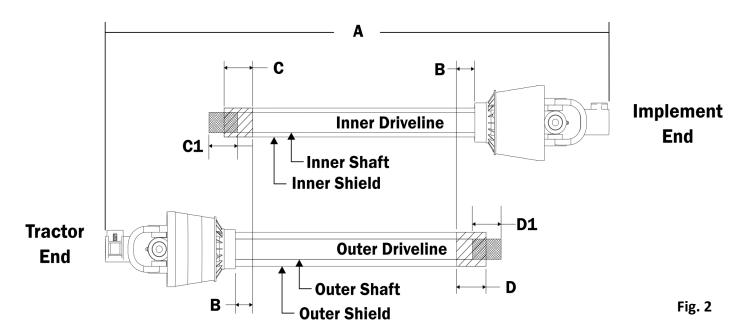
### **Instructions for Shortening a PTO Driveline:**

(Refer to Fig. 2)



Note: If you are not confident modifying the PTO Driveline, you should contact a Qualified Professional.

- 1. Separate the inner and outer PTO Drivelines. Leave separated at this time.
- 2. Attach the outer PTO Driveline to the tractor implement input shaft and inner PTO driveline to the implement input shaft.
- 3. With the drivelines parallel to one another, measure 1" (dim. 'B') back from the outer PTO Driveline shield (see fig. 2) and make a mark on the inner PTO Driveline.
- 4. Measure 1" (dim 'B') back from the inner PTO Driveline shield (see fig. 2) and make a mark on the outer PTO Driveline.
- 5. Remove the drivelines from the tractor and implement.
- 6. Measure from the end of the inner shield to the scribed mark (dim. "C"). Cut the inner shield at that mark. Cut the same amount off the inner shaft (dim. "C1").
- 7. Measure from the end of the outer shield to the scribed mark (dim. "D"). Cut the outer shield at that mark. Cut the same amount off the inner shaft (dim. "D1").
- 8. Clean off all burrs from both drivelines.
- 9. Refer to "Checking PTO Driveline Extended Length" section next.

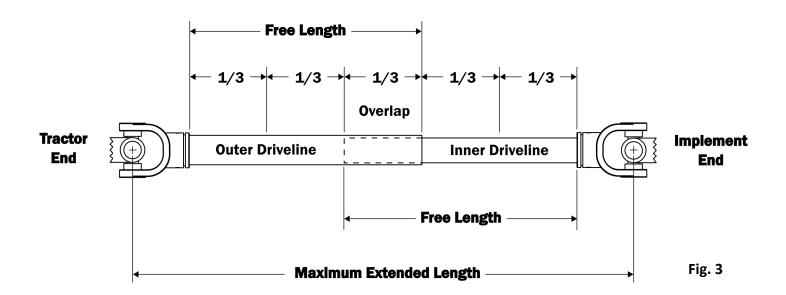




### **Checking PTO Driveline Extended Length:**

(Refer to Fig. 3)

- 1. Apply multi-purpose grease to the outside of the inner driveline section. Assemble the outer and inner drivelines.
- 2. When fully extended, the maximum allowable length must have a minimum overlap of 1/3 the free length of the inner and outer sections. Measure and record the maximum extended length for future reference.
- 3. Attach the outer PTO Driveline to the tractor implement input shaft and inner PTO driveline to the implement input shaft.
- 4. Pull both yoke ends to make sure they are properly seated on the input shafts. **Warning:** If the drive lines are not properly seated, they can separate from the tractor or implement, causing extensive damage and possibly serious injury or death.
- 5. Raise and lower the implement to determine the maximum extended length. Make sure the maximum extended length does not exceed the maximum length determined from step 2.





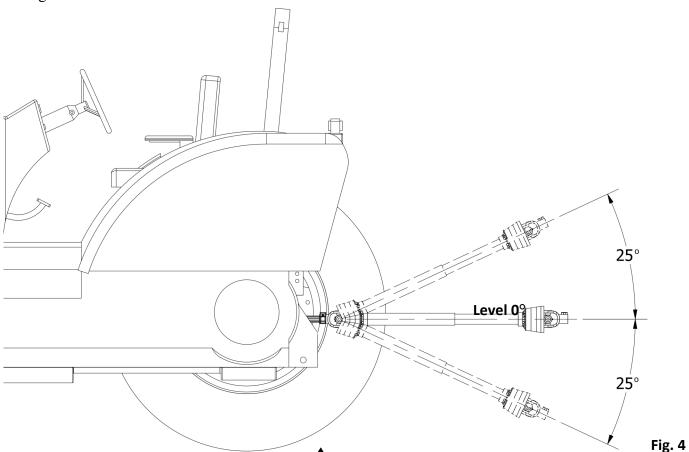
Danger: <u>Always</u> make sure shields are in place before operating the implement/tractor! Serious injury or death can occur! Note: Some shields/parts are removed from image for clarity



### **Checking for PTO Driveline Interference:**

(Refer to Fig. 4)

- 1. Begin with the PTO Driveline level (0 degrees). Raise the implement at an angle no greater than 25 degrees from level. Check for any interference and the length of the PTO Driveline extended. Do not exceed the maximum extended length!
- 2. Next lower the PTO Driveline at an angle no greater than 25 degrees from level. Check for any interference and the length of the PTO Driveline extended. Do not exceed the maximum extended length!





Danger: <u>Always</u> make sure shields are in place before operating the implement/tractor! Serious injury or death can occur! Note: Some shields/parts are removed from image for clarity





#### **Slip Clutch Adjustments:**

The slip clutch must be adjusted before first use or after a storage period.

- 1. Using a marker, scribe a line across the exposed edges of the clutch plate and friction discs.
- 2. Back off compression nuts to free friction discs by turning each nut *exactly* 2 revolutions.
- 3. Start the tractor and run the driveline at a low idle to slip the friction discs. This will remove the dirt, corrosion and surface floss from the clutch plate faces.
- 4. Disengage PTO, shut down tractor and wait for all components to come to a complete stop.
- 5. Inspect the clutch and ensure that the scribed markings on the disc and plates have changed position. If any two marks are still aligned, this is an indication that these discs have not slipped. It may be necessary to completely disassemble the clutch to free them up.
- 6. After ensuring all discs are free, tighten the compression nuts, uniformly, *exactly* 2 revolutions to reset the clutch original pressure.



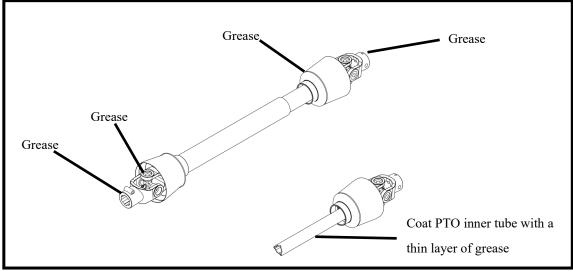
Caution: Slip Clutches may become hot. Do Not Touch. Keep the slip clutch area clear of amaterial that may catch fire. Slip clutches have adjustable torque settings. The torque setting varies with the different compression of each spring. All the springs should have an equal amount of compression.

Important: Do not over-tighten the compression nuts as this may impair performance or cause premature wearing of the slip clutch.

#### **Lubrication:**

#### **Every 8 hours:**

Grease the PTO shaft and apply a light layer of grease on the inner tube.





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