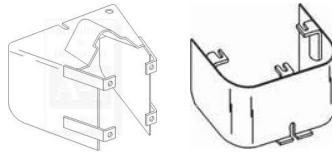


HOW TO ADJUST PTO SHAFT LENGTH

CAUTION! To prevent accidental engagement, **CUT THE ENGINE AND REMOVE THE KEYS** while handling the PTO

Select the tractor to be used first. Make sure the drive shaft length is compatible with the different working positions of the implement. If the PTO shaft is too long it will bind and damage may occur to unit / PTO / pump / tractor. Used in the collapsed position of the driveline PTO should be approximately 2" from bottoming out.

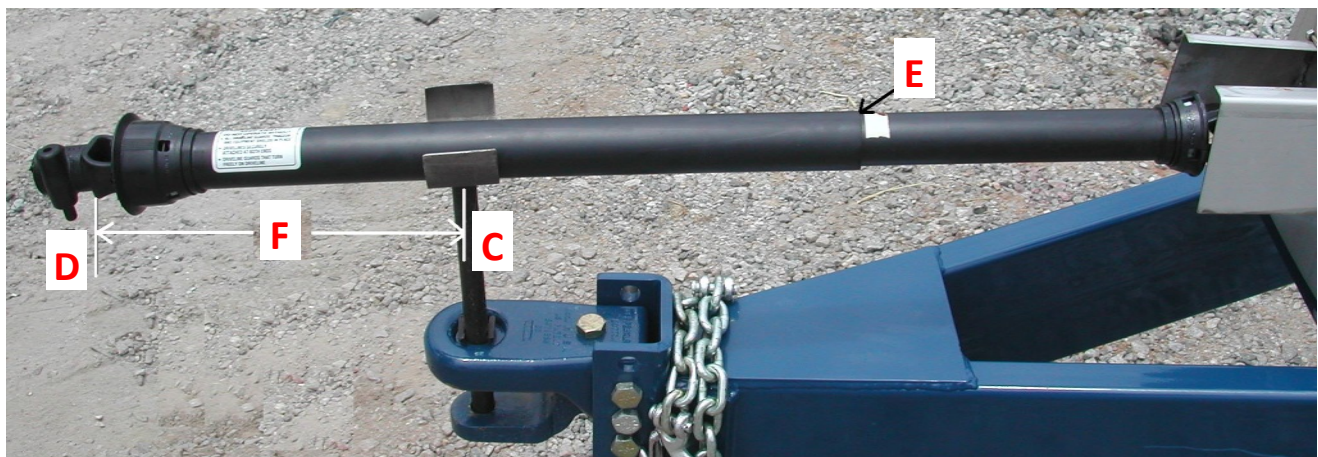
- 1 Remove the shielding.



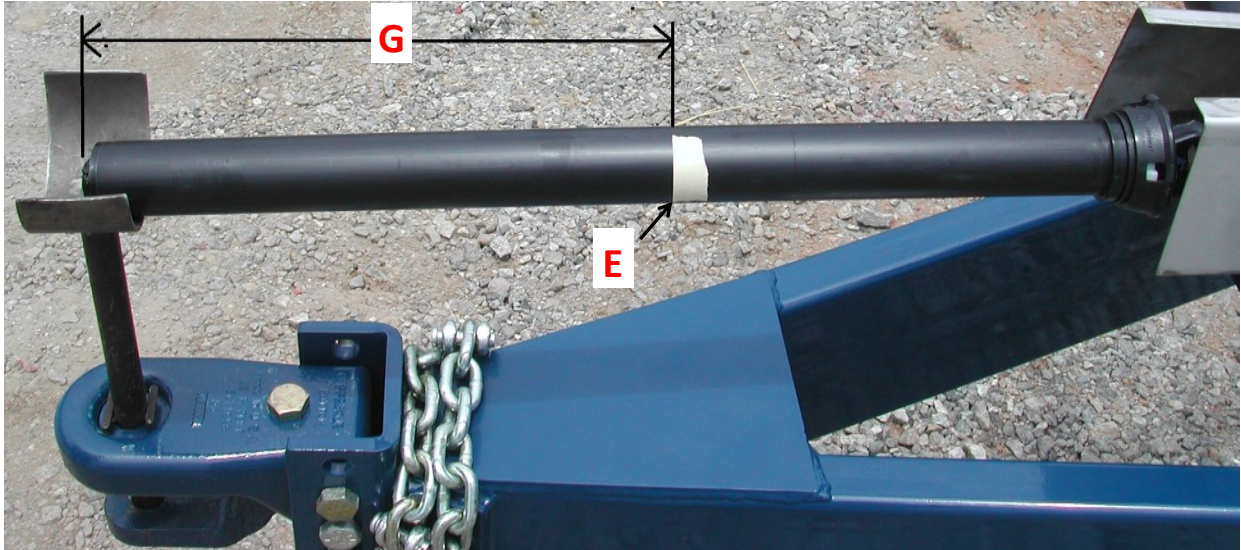
- 2 With PTO collapsed, measure between point **A** and point **B** as shown in the photo on the right.



- 3 Extend PTO shaft and measure from **C** (center of hitch pin) to **D** (end of splines on tractor yoke) to reach the desired length of **F** (540 rpm = 14" or 1000 rpm = 15"). After reaching desired length, mark **E** (overlapping shaft) with a marker or piece of tape as shown in photo below.



- 4** Separate PTO shaft and measure **G** (shaft overlap). NOTE: Measure from mark **E** to end of shaft (not shroud).



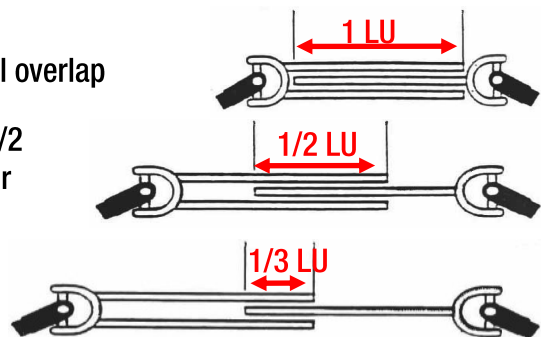
5 BEFORE YOU CUT:

- Verify collapsed position to be sure PTO will not bottom out.
- Be sure to set for tractor you will be using.
- Verify the correct amount of overlap exists.
- Verify with PTO manufacturer.

Minimum Working Length (collapsed) is total overlap

Telescoping tubes must always overlap by at least 1/2 their length in normal operation and at least 1/3 their length in all working conditions. Verify these specifications with PTO manufacturer as not all have this reduced overlap of 1/3. DO NOT CUT TOO SHORT! Do not use if correct overlap is not achieved.

LU = Overlapping Length

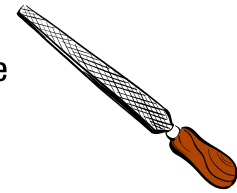


- Make sure to CUT OFF SAME AMOUNT on both shafts to achieve desired PTO length.

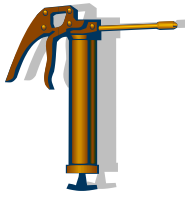
Example: A to B = 1 LU our measurement A to B = 40"
 For 540 rpm F = 14" (may require adjusting tractor draw bar)
 Our measurement G = 25"

- ◇ To achieve a 50% working overlap, divide A-B measurement by 2 ($40'' / 2 = 20''$)
- ◇ To determine the length to be cut off from each shaft (both ends), subtract 20" from G ($25'' - 20'' = 5''$)
- ◇ Cut off 5" from end of each shaft and 5" from each shroud. This will leave at least 1/2" of shaft sticking out past shroud for easy assembly.

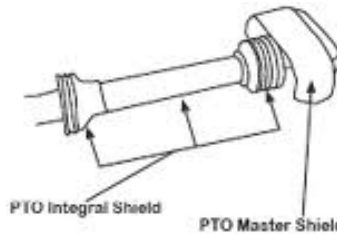
6 CAREFULLY deburr the ends of the tubes with a file and remove all filings from the tubes.



7 Grease the internal drive tube

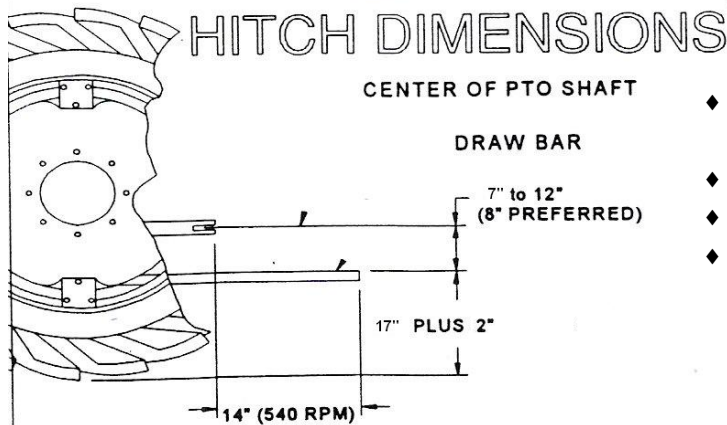


8 Reassemble the shielding on driveshaft!



The tractor draw bar and PTO must conform to ASAE specifications shown in illustration below for proper PTO operation.

illustration below



- ◆ Adjust the spreader hitch so the spreader is essentially level.
- ◆ Connect the safety chains to the tractor.
- ◆ Connect surge breakaway chain to tractor.
- ◆ Attach and secure, using approved hitch pin for load.

Attach the PTO according to the pump instructions.

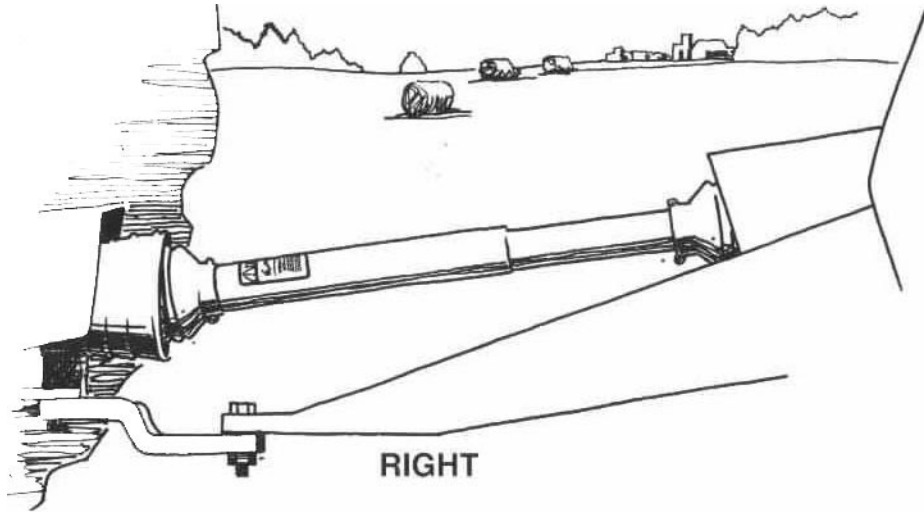
The PTO mounting bar and chain should be attached so that the pump will not rotate. Know the direction of rotation.



In June 2009 the Association of Equipment Manufacturers sent this warning letter member companies on the use of PTO adaptors for use on tractor PTO shafts. "These adaptors open up the possibility of over-speeding the machine that is being driven by the tractor by enabling connection of a machine designed for 540 RPM to a tractor PTO shaft designed to rotate at 1000 RPM. Additionally, the tractor PTO shield may not provide adequate shielding due to the length of the adapter and consequent rearward movement of the universal joint and its connecting yoke. These adaptors can also cause the driveline to be compressed more than what the original driveline design allows; this can cause damage to the tractor PTO.....To that end, we recommend that the use of and/or selling of a PTO adaptor be stopped."

9 Verify collapsed position. Be sure PTO does not “bottom out”.

10 Verify the length of driveshaft at minimum and maximum extensions.



CAUTION: Lock the draw bar securely in both horizontal and vertical directions to avoid damage. PTO shaft must have full range of movement or will require adjustment.

CAUTION: Always work with the driveline as straight as possible. This will guard against damage to PTO, unit or tractor.



Read all instructions before you start.

Follow all safety precautions and use common sense.



There is no substitute for safety.

