



MAFES Dawg Tracks

August 10, 2015



Safety Tips: Know the Dangers of a PTO



One of the most hazardous areas on a tractor is the Power Take off shaft. Without the guards, shields and constant awareness by the operator observing the shaft, the spinning shaft - which turns at an extremely high speed - an unsuspecting employee can be grabbed and entangled very quickly.

Entanglement in the shaft is the most common type of injury and also the most dangerous type, usually causing severe injury or even death.

What is the power take off?-

- ✓ It is an important part of the tractor.
- ✓ The PTO provides a means of transmitting power between the tractor and another piece of farm machinery, such as hay balers, rotary cutters, weed mowers, forage blowers and irrigation pumps.

Dangers of a Power Take Off (PTO)-

- ✓ The shafts rotate at extremely high speeds. They make 540 to 1000 revolutions per minute (rpms) when they are rotating at normal speed.
- ✓ Most accidents happen when people get too close to the rotating shaft, especially if the guards and/or shields have been removed.
- ✓ Hair and loose clothing, such as pant legs or the drawstrings in hooded sweat shirts (hoodies), can get caught in the shaft and wrap around it.
- ✓ The chances of that happening increases if the shaft has nicks in the metal, dried mud on the shaft or manure on it.
- ✓ Hair and loose clothing can also get caught in the U-joints or other fastening devices and wrap you around the shaft.
- ✓ Once hair or clothing is caught in the shaft, it is virtually impossible to get out. The more you try to pull away the tighter it wraps you around the shaft.
- ✓ In a matter of a few seconds, your hair or clothing can be torn from your body and wrapped around the spinning shaft.

Safety Devices that Help to Protect you-

- ✓ PTO shields cover the shaft to help prevent one from becoming entangled.
- ✓ Check to be sure that your equipment has the shields and guards over the PTO shaft.
- ✓ Don't assume that a guard or shield will automatically prevent an accident. The guards or shields may be missing, damaged or cover only part of the PTO driveline.
- ✓ If you see that a guard or shield is missing or damaged, report it immediately to your supervisor. Do not attempt to operate the machinery if there is a damaged or missing guard or shield.

Tips for Self-Protection-

- ✓ Each time that you finish a job or stop for anything, turn off the PTO before getting off the tractor. Stop the tractor, apply the parking brake and remove the ignition key.
- ✓ Do not go close to the PTO driveline until all the parts have stopped rotating.
- ✓ Do not attempt to check, adjust, unplug or grease any PTO-powered equipment while the PTO shaft is still rotating.
- ✓ Check the manufacturer's instructions to find out how to hook up an implement to the PTO. Make sure that no one is on the tractor or near the equipment while you are hooking up.
- ✓ If a PTO is operating while the tractor is stationary, be sure that the tractor is in neutral or park and the parking brake is engaged.
- ✓ Don't wear loose clothing around a PTO. If you have long hair put it up or tuck it in a hat or cap before operating the machinery.
- ✓ Every time you hook up an implement to your tractor's PTO, check to make sure the shields are in place and are properly functioning.
- ✓ If someone is working alone with PTO-powered machinery, check on the person from time to time.

⇔ AVOID ACCIDENTS ⇔
KEEP GUARDS IN PLACE
⟨>> BE A LEADER <<>
FOLLOW SAFETY PROCEDURES