

FARM MACHINERY SAFETY



Farm machinery plays an important role in making farms efficient and productive. These machines have benefits, but are also hazards to workers. The large size, heavy weight, and complex mechanisms of farm equipment make it inherently dangerous.

Incidents involving farm machinery can lead to serious injuries or fatalities. Workers face risks from moving parts, thrown objects, and stored energy. Understanding the hazards and taking steps to prevent possible injury will help to ensure that your operation is safe.



MACHINERY HAZARDS

HAZARD	HAZARD DEFINITION	EXAMPLE
Shear & cutting edges	The edges of two machine parts move across or close enough to each other to cut a relatively soft material	Shears or rotary blades on a mower
Pinch points	Two machine parts move together and at least one of the parts moved in a circle	Belt drives, chain drives, gear drives
Wrap points	Rotating components are often shafts such as PTO, that can catch a person or his/her clothing	Power take off shaft
Crush points	Two objects are moving toward each other, or when one object is moving toward a stationary object	Hitching up an implement with a tractor or a falling heavy object
Pull-in points	Rotating parts that come in close contact with each other, such as feed rolls	Feed chambers on square balers
Thrown objects	Spinning mechanisms that continue even after the machine is shut off	Mower rotary blades, fans, flywheels

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MACHINERY HAZARDS *continued*

Stored energy	When energy that is confined is released unexpectedly	Bungee cords used to tie down tarps; Springs under tractor seat
Hydraulic systems (stored energy)	Pressurized energy used to lift attachments, operate motors, and assist steering and braking - stored pressure can cause oil to be injected in body tissue	Hydraulic hose between the tractor and operating PTO

PREVENTING FARM MACHINERY RELATED INJURIES

HAZARD	MACHINERY RELATED TACTICS	OPERATOR RELATED TACTICS
Shear & cutting edges	Shield and guard sharp edges	Shut down equipment before cleaning or working on blades
Pinch points	Shield and/or guard pinch point areas	Wear tight fitting garments and gloves
Wrap points	Guard wrap point areas including protruding bearings and universal joints	Do not wear loose clothing and restrain long hair
Crush points	Put machine in park before hitching implements and use blocks when working on equipment	Do not permit someone to stand between the tractor and implement while hitching
Pull-in points	Keep feed rolls and other machinery parts in good working condition	Shut off power before attempting to clear plugged equipment and use lockout/tag out when appropriate
Thrown objects	Ensure blades are covered and wait two minutes until blades stop before working on machine	Ensure humans and livestock are away from area where machine is operated and wear safety glasses, long pants, shirts, and covered shoes
Springs (stored energy)	Examine springs for weak areas before attaching	Take care when releasing spring so it does not hit you or other people in the vicinity
Hydraulic systems (stored energy)	Ensure all lines and fittings are in good condition, replace those needing repair	Use cardboard or mirrors when checking for leaks on a regular basis - never use your hands

SAFETY TIPS

- Dress appropriately
 - No loose clothing - wear tight fitting clothing, keep cuffs buttoned, keep shirts tucked in, remove loose jewelry, keep long hair under a cap or head covering.
- Use PTO safety shields.
- NEVER operate machinery under the influence of drugs or alcohol.
- Provide workers with proper training on safely using equipment and machinery, and read and reference manuals often.