

Machinery guarding safety

November 2005

Facts

- Manufacturers of machinery and equipment are legally required to make sure dangerous parts are safely guarded so that operators and others are protected from injury.
- A guard may be any shield, cover, casing, physical or electronic barrier intended to prevent contact between a hazardous machine part and any part of a person or a person's clothing.

Reducing the risk

Regularly check for hazards related to machinery guarding since old farm machinery is sometimes poorly guarded. Hazard areas may include extra moving parts like wheels and pulleys that may have been added for various other uses. Original guarding may have also been removed for maintenance and not put back. There may be times when an operator may need to reach over, under, around or into a machine while it is running. If so, any moving parts or other hazards must be appropriately guarded from human contact.

Some of the hazards associated with machinery and likely to cause injury include:

- rotating PTO and other shafts, for example joints, couplings, shaft ends and crank shafts;
- gearing, including friction roller mechanisms, cables, sprockets, chains, clutches, cams or fan blades;
- keyways, keys, grease nipples, set-screws, bolts or any other projections on rotating parts;
- any pulley or flywheel that incorporates openings, spokes, protrusions, etc, that render it anything except totally smooth;
- any crushing or shearing points, such as augers, roller feeds, and conveyor belts;
- rotating knives, blades, tines or similar parts of power driven machines that operate in or near the ground or engage crops;
- any machine component that cuts, grinds, pulps, crushes, breaks or pulverises farm produce; and
- hot parts of any machine.

The following suggestions may assist in reducing the risk of injuries or harm to health related to poor machinery guarding.

General safety tips

Make sure machinery guards:

- are designed to protect the user but allow ready access for operation and maintenance;

- are always in place on hazardous parts of machinery;
- are conveniently placed so that users, operators and service and maintenance people are less likely to remove them permanently;
- are strong and durable enough for the machine part they cover;
- protect users, operators and bystanders against burns caused by hot parts;
- are ventilated where applicable to avoid the machine over-heating; and
- are not removed until the machine is stopped, isolated from the power source, “locked-out”, de-energised and “tagged out” using a danger tag.

Safe procedures for machinery guarding

- For maintenance jobs, have a checklist procedure ensuring guarding is safely replaced.
- Use lock-out and tag devices to prevent machinery being accidentally started during maintenance.
- Redesign work processes to minimise risk from moving parts.
- Replace unguarded machinery with safer machinery.
- Have guards designed and fitted for improvised machinery.
- Ensure employees are fully instructed about safe procedures for guarding, isolation devices, locks, and danger tags.

Children and machinery

Children on or visiting the farm are often at risk of being injured by machinery. Minimise the risks by teaching children about safety on the farm.

- Agricultural machinery is not a playground.
- Make sure guards are on machines.
- Be aware that children's fingers can sometimes reach into guarding designed for adult hands.

Additional information

Additional information on machinery guarding can be found in the following documents:

- *Occupational Safety and Health Act 1984*
- *Occupational Safety and Health Regulations 1996*
- *Plant in the Workplace*
- *Isolation of Plant*

There may be other dangers from using machinery on your farm. You can make your farm safe by:

- walking around the farm and looking at every job involving machinery;
- listing what could go wrong to cause an injury or illness;
- thinking about ways of preventing it; and
- doing something about it.

This publication is available on request in other formats to assist people with special needs.

DP099253/ 2000

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