



Safe use of agricultural mowers

Agriculture Information Sheet No 25

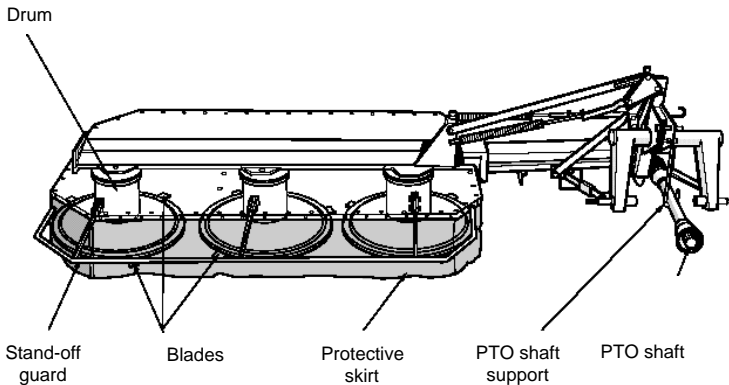


Figure 1 Typical drum mower

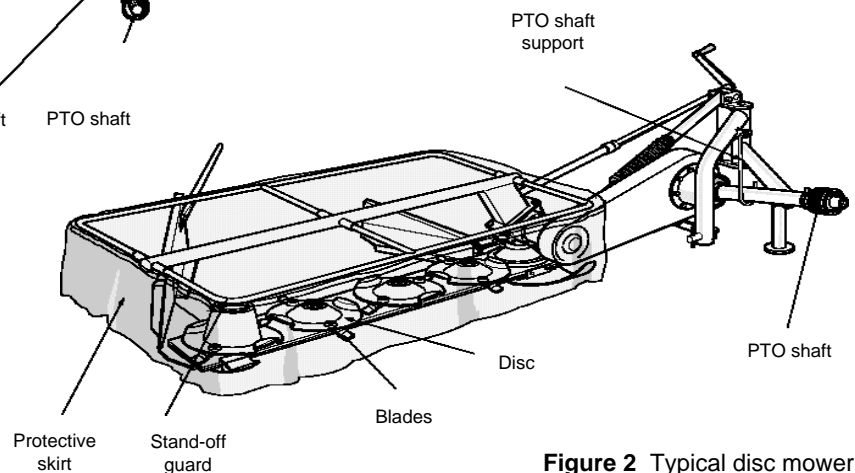


Figure 2 Typical disc mower

Introduction

Between 1986 and 1996, the Health and Safety Executive (HSE) investigated over 50 serious accidents involving tractor-mounted and towed agricultural mowers. Eight of these accidents were fatalities, and two near-miss accidents were investigated when only luck prevented someone being injured or killed. It is likely that there are many more incidents that HSE does not know about.

This information sheet outlines the main hazards arising from the use of rotary and flail mowers and gives advice on how to use them safely.

It does not address the use of these machines at working demonstrations where considerable attention must be paid to the likelihood of bystanders being injured.

The risks should be identified in relation to your machine and precautions put in place to reduce them.

As with any machine, training and awareness are essential:

- Make sure all operators are provided with the instruction manual. They should know about the risks and understand the procedures necessary for safe operation. They should particularly be aware of the manufacturer's recommendations for safe use and how to clear blockages safely.

- Make sure that you, your employees, or contractors are properly trained in the safe use of the mower, have seen this sheet and understand this guidance.
- Make use of relevant training courses (such as those run by Lantra NTO Ltd, agricultural colleges and manufacturers/dealers). They will help you to ensure the safe and efficient use of your mower and give it a longer life.

Hazards

The hazards are:

- ejected blades, flails or attachments;
- ejected debris;
- moving blades or flails;
- moving drive mechanisms;
- clearing blockages while the machine is in motion;
- crush and other hazards while moving the mower between the work and transport positions;
- working beneath the raised machine while replacing blades or carrying out other maintenance;
- overturning when mowing slopes and banks.

Don't:

- operate a mower if there are bystanders who are likely to be hit by broken blades or ejected debris (these may travel considerable distances);
- carry out maintenance or approach the mower with the tractor engine running;
- attempt to clear any blockage unless the tractor engine is switched off, the blades have stopped, and the ignition key is removed;
- use a mower if the 'stand-off' guards are missing from either the front or rear of the machine;
- carry out maintenance work beneath a mower that is not supported with a purpose-made prop or stand.

Do:

- make sure anyone operating a mower has read and understood the instruction book;
- remember that other parts, such as conditioners, need to be guarded to the same standard as the rest of the mower;
- make sure all guards are in position and correctly fitted before starting work and while work is carried out;
- make sure that any device (eg skirts) to stop projectiles is in place and well maintained;
- disengage all controls and stop the tractor engine before leaving the tractor seat;
- take care when working on steep ground, particularly when turning, and especially with mounted mowers;
- remember that even when working under a supported machine, heavy parts may also need supporting (eg supporting axles when changing bearings);
- consider the need for protective gloves when changing blades and carrying out similar maintenance.

General

- Watch for potential blockages - avoiding blockages is easier than clearing them.
- Follow the manufacturer's instructions for replacing blades and flails.
- Ensure replacement blades and attachments meet the manufacturer's specifications.
- Other replacement parts should meet the manufacturer's specifications and use of spurious parts should be avoided.
- Take into account the run-down time for blades and cutting mechanisms before approaching the machine.
- Correct maintenance procedures and scheduling should identify and rectify faults that are developing and will ensure the correct operation of safety devices (eg slip clutches).

Legal

Manufacturers and suppliers have responsibilities under the Health and Safety at Work etc Act 1974 (the HSW Act) and the Supply of Machinery (Safety) Regulations 1992 (as amended in 1994). Guidance on how these requirements can be met is given in PD 5304: 2000 (formerly BS 5304: 1988) and BS EN 292 and supporting standards, in particular BS EN 745: 1999 *Agricultural machinery. Rotary and flail mowers. Safety*.

The HSW Act and the Provision and Use of Work Equipment Regulations 1998 place duties on employers, employees and the self-employed to ensure their own and others' health and safety.

Employers have a duty to consult employees. They should consider the views of their employees or representatives who often have personal knowledge or experience of the hazards of using mowers and may offer practical, common-sense suggestions on what should be done to avoid accidents and minimise health risks. Involving employees will gain their commitment and help make the work activity safe.

Further reading

Safe use of big round balers Agriculture Information Sheet AIS4 HSE Books 1992

Safe use of forage harvesters Agriculture Information Sheet AIS24 HSE Books 1998

Prevention of tractors overturning Leaflet AS22 HSE Books 1997

Further information

HSE priced and free publications are available by mail order from HSE Books, PO Box 1999, Sudbury, Suffolk CO10 2WA Tel: 01787 881165 Fax: 01787 313995 Website: www.hsebooks.co.uk (HSE priced publications are also available from bookshops.)

For information about health and safety ring HSE's InfoLine Tel: 08701 545500 Fax: 02920 859260 e-mail: hseinformationservices@natbrit.com or write to HSE Information Services, Caerphilly Business Park, Caerphilly CF83 3GG. You can also visit HSE's website: www.hse.gov.uk

British Standards are available from BSI Customer Services, 389 Chiswick High Road, London W4 4AL Tel: 020 8996 9001 Fax: 020 8996 7001 Website: www.bsi-global.com

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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