

## Service and repair land-based cutting and mowing equipment

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### Overview

This standard covers the service and repair of land-based cutting and mowing equipment. It includes the underpinning knowledge of the construction and operating principles of implements and machinery.

It includes the recognition of faults, methods of repair, calibration and verification of performance. Equipment covered can be found in one or more of the following associated sectors of land-based engineering, e.g. agriculture, horticulture, amenities, ground care, arboriculture and forestry.

The standard also covers the cutting principles which include stationary/moving, rotating cutting, saw blades and hand tools.

This standard is for those working in land-based engineering and is appropriate for persons working under supervision.

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## Performance criteria

You must be able to:

1. remove and replace components on land-based cutting/mowing equipment
2. dismantle, service/repair and reinstate cutting/mowing equipment and tools to manufacturers' specification
3. **sharpen cutting mechanisms** to perform within manufacturers' specification
4. **set cutting mechanisms** to perform within manufacturers' specifications
5. identify and rectify poor cutting performance

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### Knowledge and understanding

You need to know and understand:

1. how to remove and replace components from land-based cutting and mowing equipment
2. how to dismantle, service/repair and reinstate cutting and mowing equipment to the manufacturer's specification.
3. the working principles of **cutting and/or mowing equipment** and their components
4. the methods of sharpening and setting cutting mechanisms and components
5. the effect of crop type and conditions on the cutting and/or mowing process
6. how adjustments and settings effect the performance of cutting and/or mowing equipment

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### Glossary

**cutting and/or mowing equipment** and their components e.g. lawn and professional turf mowers, hedge trimmers, green crop mowers and toppers, harvester cutting mechanisms, saws, chippers and hand tools

**set cutting mechanisms** e.g. balancing, blade clearances, cutting height, chop length

**sharpen cutting mechanisms** e.g. saw blades and chains, stationary and rotating knives, cylinders/reels, flails and hand tools

### Links to other NOS

Refer to LANLEO1 Recognise and reduce hazards in the land-based engineering work area, for guidance on safe working practices.

Refer to LANLEO4 Apply core land-based engineering principles: mechanical principles, for guidance related to fundamental engineering principles and practices.

Refer to LANLEO29 Monitor the handover and installation of land-based equipment, for guidance related to operational requirements.

Refer to LANLEO2 Implement organisational procedures in land-based engineering, for guidance related to procedural or administrative recording and reporting practices.

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