

LANLEO18 - SQA Unit Code F9GF 04

Service and repair land-based harvesting and processing equipment



Overview

This standard covers the underpinning knowledge of the construction and operating principles of:

1. Implements and machinery
2. Fixed equipment and storage facilities

It includes the recognition of faults, methods of repair, calibration and verification of performance. Harvesting and/or processing 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.

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Performance criteria

You must be able to:

- P1 remove and replace components from harvesting and/or processing equipment
- P2 dismantle, repair and reinstate harvesting and/or processing equipment to the manufacturers' specifications
- P3 setup harvesting and/or processing equipment for optimal performance
- P4 identify faults in harvesting and/or processing equipment, e.g. set up harvesting and/or processing equipment for optimal performance
- P5 rectify faults in harvesting and/or processing equipment which causes crop or product loss, damage, contamination, poor sample quality
- P6 prepare harvesting and/or processing equipment for periods when not in use, e.g. bulk storage facilities, seasonal equipment

Knowledge and understanding

You need to know and understand:

- K1 how to remove and replace components from harvesting and/or processing equipment
- K2 how to dismantle, repair and reinstate harvesting and/or processing equipment to manufacturers' specifications
- K3 the construction and operation of harvesting and/or processing equipment
- K4 the methods and operating principles of harvesting and/or processing equipment, e.g. : movement of material within the harvesting process (elevating, lifting, conveying, transfer, metering and presentation), processing e.g. separation, drying, pasteurisation, compression/tying/wrapping, disposal/dispersal of waste products.
- K5 how to setup harvesting and/or processing equipment for optimal performance
- K6 the appropriate methods of removing blockages from harvesting and/or processing equipment
- K7 the causes of crop or product loss and/or poor sample quality, e.g. contamination, damage, wastage and non-compliance with specifications
- K8 how to identify and rectify the effect of crop or product type and conditions on harvesting and/or processing operations
- K9 how to prepare harvesting and/or processing equipment for periods when not in use, e.g. bulk storage facilities, seasonal equipment

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Links to other NOS

Refer to **LEO1** Recognise and reduce hazards in the land-based engineering work area, for guidance on safe working practices.

Refer to **LEO4** Core land-based engineering principles – Mechanical principles, for guidance related to fundamental engineering principles and practices.

Refer to **LEO29** Monitor the handover and installation of land-based equipment for guidance related to operational requirements.

Refer to **LEO2** Organisational procedures in land-based engineering for guidance related to procedural or administrative recording and reporting practices.

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