

**Overview**

This standard covers co-ordinating the maintenance and repair of equipment and machinery. Maintenance may be periodic or as required. You will need to be competent in relation to the maintenance and repair of equipment and machinery, and in relation to fault identification and rectification.

If you are working with chemicals or machinery you need to be appropriately trained in line with current legislation, and hold a relevant award where appropriate.

You must carry out your work in a way which will consider any impact on the natural environment.

**Performance  
criteria**

- You must be able to:*
- P1 inspect equipment and machinery to determine the requirements for maintenance or repair
  - P2 recognise defects in equipment and machinery
  - P3 diagnose faults in equipment and machinery
  - P4 obtain the necessary authorisation where appropriate to carry out the work
  - P5 identify and establish the availability of resources required for the work
  - P6 ensure tools, equipment and materials appropriate for the work are used and maintained in a safe and effective condition, including PPE
  - P7 ensure that all equipment and machinery for maintenance or repair is safe and has been properly prepared before work commences
  - P8 ensure that all work is carried out in accordance with specifications and legislation
  - P9 ensure components are marked up for disassembly and re-assembly purposes
  - P10 ensure worn and damaged components are removed and replaced in accordance with specifications
  - P11 ensure correct precautions are taken to prevent danger from contamination and the escape of substances
  - P12 identify the need for expert attention and take the appropriate action
  - P13 carry out the correct tests on completion of the maintenance or repair to confirm the machinery or equipment is in good working order and safety devices are operating correctly
  - P14 ensure equipment and machinery is correctly set or calibrated following maintenance or repair
  - P15 ensure that waste is dealt with safely and correctly in accordance with legislation
  - P16 ensure maintenance tools are clean, serviced and stored safely and effectively
  - P17 ensure that environmental and health and safety policies and risk assessment requirements are put into practice across your area of responsibility
  - P18 ensure appropriate records are maintained as required by relevant legislation and the organisation

## Knowledge and understanding

*You need to know and understand:*

- K1 the reasons for maintaining equipment and machinery and the possible consequences of not doing so
- K2 legislative requirements relating to the maintenance of equipment and machinery
- K3 manufacturers requirements for the maintenance of equipment and machinery
- K4 actions which might invalidate the manufacturers warranty
- K5 when and how to carry out inspection of equipment and machinery
- K6 methods for the diagnosis of faults and the identification of the root cause
- K7 typical faults that occur with specific equipment or machinery
- K8 routine maintenance requirements and why these must be adhered to
- K9 components that require periodic replacement and the reasons for this
- K10 factors which impact on the value of continuing with the procedure such as the cost of repair, estimated working life, immediate needs for the equipment/machinery
- K11 circumstances in which authorisation must be obtained prior to maintenance or repair
- K12 resources required for the maintenance or repair work and how to ensure they are available
- K13 procedures for obtaining replacement components/parts
- K14 information required for the maintenance or repair procedure and how it should be obtained
- K15 types of personal protective equipment and the reasons why it must be worn
- K16 methods for preparing equipment and machinery for maintenance or repair
- K17 the dangers created by stored energy and how these should be responded to during the preparation stage
- K18 hazardous chemicals and substances which may be present and ways in which they should be dealt with
- K19 the ways, and reasons, for marking equipment and machinery for disassembly and re-assembly purposes
- K20 the importance of ensuring that activity is completed in accordance with specifications and item is safe and in good working order following maintenance or repair
- K21 methods for setting or calibrating equipment or machinery following maintenance or repair
- K22 how and where to refer problems which require expert attention
- K23 your responsibilities under current environmental and health and safety legislation, codes of practice and company policies
- K24 how to minimise any potential impact of the work on the environment

- K25 the legal and organisational requirements for the handling, transporting and disposal of waste
- K26 appropriate records to be kept and their significance

## Glossary

Specifications: drawings, schedules, method statements, Standard Operating Procedures (SOPs), manufacturers guidelines, customer requirements.

Instructions: verbal or written.

Equipment and machinery: manual and mechanical.

Inspection: daily/weekly checks for routine inspection, periodic inspections e.g. monthly or number of hours run, statutory inspections

Methods of inspection: visual inspections, functional and operational tests

Defects: could include - rusting and rotting materials, worn, damaged or missing components or parts, leaking fluids and substances, damaged tyres, tracks, worn seals

Resources: labour, tools, equipment and materials to carry out the work (including PPE), replacement components

Stored energy: springs, belt tension, hydraulic pressure or electrical discharge.

Hazardous chemicals and substances could include fuels, oils, fluids, gasses, dust, compressed air

Tools used to carry out maintenance and repair procedures will include hand tools and power tools

Waste: may include hazardous and non-hazardous materials.

## LANCS26 SQA Unit Code H559 04

### Co-ordinate the maintenance and repair of equipment and machinery

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