

Overview

This standard covers the maintenance and repair of equipment and machinery. Equipment and machinery may be manual or mechanical.

Maintenance includes periodic checking of the equipment or machinery as recommended by the manufacturers. This is carried out in order to optimise the performance and maximise the working life of the equipment or machinery. It also covers repairs required due to defects or faults. You will carry out all activities in accordance with specifications.

When working with machinery or equipment you should be trained and hold current certification, where required.

When carrying out your work you must consider the impact it will have on the environment.

This standard is suitable for those with responsibility for the routine maintenance and repair of equipment and machinery.

Carry out maintenance and repair of equipment and machinery

Performance criteria

You must be able to:

1. assess the risks associated with the required activity
2. wear suitable clothing and personal protective equipment (PPE)
3. select, prepare and use and maintenance tools, equipment and materials, safely and correctly
4. identify and prepare the equipment and machinery requiring maintenance or repair
5. locate the relevant maintenance **instructions and specifications** for the equipment and machinery
6. confirm that the equipment and machinery requiring maintenance or repair is safe and has been properly prepared
7. take the correct precautions to prevent the escape of substances and minimise dangers from contamination and hazardous chemicals where required
8. keep the work area safe and in a condition suitable for the maintenance or repair work
9. obtain the replacement components/parts required to complete the work
10. identify and mark up the components for the purpose of disassembly and re-assembly
11. carry out the maintenance and repair of equipment and machinery, in accordance with **instructions and specifications** and relevant legislation
12. reset and test equipment and machinery if required, following its maintenance or repair
13. clean, service and store maintenance tools safely and correctly
14. maintain communication with colleagues and others involved in, or affected by, your work
15. process **waste** safely and correctly, in accordance with relevant legal requirements and organisation practices
16. follow industry and organisation guidance to minimise environmental damage
17. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisation policies
18. complete records as required by relevant legislation and the organisation

Knowledge and understanding

You need to know and understand:

1. how to identify hazards and assess risks
2. the type of clothing and personal protective equipment (PPE) suitable for the activity
3. the type of tools, equipment and materials required to carry out the maintenance or repair work and how to prepare, use maintain and store these safely and correctly
4. the equipment or machinery that requires maintenance or repair and what needs to be done
5. the reasons for maintaining equipment and machinery and the possible consequences of not doing so
6. the legislative requirements relating to the maintenance of equipment and machinery
7. manufacturer's requirements for the maintenance of equipment and machinery
8. the actions that might invalidate the manufacturer's warranty
9. where to locate the maintenance **instructions and specifications** for the equipment and machinery
10. how to identify defects and faults on equipment and machinery
11. the methods of preparing equipment and machinery for maintenance or repair
12. the dangers created by **stored energy** and how these should be dealt with during the preparation stage
13. the **hazardous chemicals and substances** that may be present and how to deal with these
14. the organisational procedures for obtaining replacement components/parts
15. how to mark up components for disassembly and re-assembly and the reasons for doing this
16. the methods of resetting and testing equipment and machinery following its maintenance or repair, where required
17. your level of responsibility in relation to the maintenance or repair of equipment and machinery, and to whom to refer problems
18. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
19. how to handle, transport, store and dispose of waste and **hazardous chemicals and substances**, in accordance with relevant legal and organisational requirements

20. the potential impact that your work could have on the environment and the ways in which this can be minimised
21. your responsibilities under relevant environmental and health and safety legislation, codes of practice and organisation policies
22. the records that need to be kept and the importance of completing them

Glossary

Hazardous chemicals and substances could include:

- fuels
- oils
- fluids
- gases
- dust
- compressed air

Instructions and specifications:

- drawings/plans
- schedules
- method statements
- Standard Operating Procedures (SOPs)
- Manufacturer's guidelines
- customer requirements
- verbal instructions

Stored energy:

- springs
- belt tension
- hydraulic pressure
- electrical discharge

Waste: may include hazardous and non-hazardous materials.

Links to other NOS

Specialist maintenance and repair of land-based equipment and machinery is covered in the Land-based Machinery Operations suite.

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Suite Agricultural Crop Production; Livestock Production; Horticulture; Gamekeeping and Wildlife Management; Aquaculture; Fisheries Management

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