

Overview

This standard is for those who assess equipment and machinery and carry out their maintenance or repair. The types of equipment and machinery will be manual or mechanical. 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 malfunctions, fault identification and rectification.

When working with machinery or equipment you should be trained and hold relevant certification where required, in line with relevant legislation.

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

Important health and safety considerations within this NOS include:

- The handling of stored energy (e.g. springs, belt tension, hydraulic pressure or electrical charge)
- the use of hazardous substances
- disposal of waste hazardous and non-hazardous waste.

Performance criteria

You must be able to:

1. assess the risks associated with the activity to be carried out
2. check that suitable clothing and personal protective equipment (PPE) is worn
3. carry out the inspection of equipment and machinery to determine the requirements for maintenance or repair
4. assess equipment and machinery for defects and faults before carrying out the maintenance or repair
5. obtain authorisation where required to carry out the work
6. identify and establish the availability of replacement components/parts required for the work
7. check that tools and equipment required to carry out the work are prepared, used, maintained and stored safely and correctly
8. check that all equipment and machinery requiring maintenance or repair is safe, properly prepared and isolated from power sources where required, before work commences
9. check that all work is carried out in accordance relevant legislation, instructions and specifications
10. check that components are marked up for disassembly and re-assembly purposes
11. check that worn and damaged components/parts are removed and replaced in accordance with instructions and specifications
12. safely store the equipment and machinery when replacement components/parts are unavailable and take the required action to obtain suitable components/parts
13. check that the work area is kept in a safe and suitable condition for maintenance or repair
14. check that correct precautions are taken to prevent danger from contamination and the escape of hazardous chemicals and substances
15. identify the need for expert advice and take the relevant action
16. check that correct tests are carried out on completion of the work, to ensure that the equipment and machinery are in good working order and that safety devices are operating correctly
17. check that equipment and machinery are correctly set or calibrated following maintenance or repair
18. check that non-hazardous and hazardous waste is processed safely and correctly in accordance with relevant legal requirements and organisation practices

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19. confirm that work is carried out in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisation policies
 20. maintain communication with colleagues and others involved in, or affected by, your work
 21. confirm records are maintained and stored 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 when preparing to maintain or repair equipment and machinery
2. the type of clothing and personal protective equipment (PPE) suitable for the activity
3. the types of tools and equipment required for maintenance or repair of equipment and machinery
4. the reasons for maintaining equipment and machinery and the possible consequences of not doing so
5. the relevant legislative and manufacturers requirements relating to the maintenance or repair of equipment and machinery
6. circumstances in which authorisation must be obtained in preparation for maintenance or repair
7. the actions which might invalidate the manufacturer's warranty
8. inspection methods for equipment and machinery to determine the maintenance or repair requirements
9. methods for the assessment of defects and faults and the identification of the root cause
10. typical defects and faults that occur with equipment or machinery
11. routine maintenance requirements of equipment and machinery and why these must be adhered to
12. components/parts that require periodic replacement and the reasons for this
13. factors which impact on the value of carrying out the maintenance or repair, such as cost, estimated working life, immediate need for the equipment/machinery
14. the component/parts required for the maintenance or repair work and the procedures for obtaining replacements
15. instructions and specifications required for the maintenance or repair procedure and how to obtain these
16. methods for preparing equipment and machinery for maintenance or repair
17. the dangers created by stored energy and how these should be responded to during the preparation stage
18. hazardous chemicals and substances which may be present and ways in which they should be dealt with
19. the ways of marking equipment and machinery for disassembly and re-assembly purposes and the reasons for doing this

20. methods for setting or calibrating equipment and machinery following maintenance or repair
21. the importance of testing the equipment and machinery on completion of maintenance or repair to ensure that they are safe and in good working order following maintenance or repair
22. how and where to refer problems which require expert attention
23. the relevant legal and organisational requirements for the handling, transporting and disposal of hazardous and non-hazardous waste
24. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
25. your responsibilities under relevant environmental and health and safety legislation, codes of practice and organisation policies
26. the records that need to be kept and the importance of completing them

Scope/range

- A. prepare a maintenance or repair schedule/plan for the following equipment and machinery at your place of work:
 - (i) manual
 - (ii) mechanical

- B. prepare the following equipment and machinery:
 - (i) manual
 - (ii) mechanical

- C. prepare for the following maintenance or repair:
 - (i) routine
 - (ii) breakdown

Glossary

Defects and faults could include:

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

Hazardous chemicals and substances could include:

- fuels
- oils
- fluids
- gasses
- dust
- compressed air

Inspection:

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

Instructions and specifications:

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

Methods of inspection:

- visual inspections
- functional and operational tests

Stored energy:

- springs
- belt tension
- hydraulic pressure
- electrical discharge

LANCS26

Assess and carry out the maintenance or repair of equipment and machinery



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Relevant Occupations Agricultural Machinery Operator; Horticultural Production Manager; Horticultural Technician; Horticulture and Animal Care; Farmer; Farmers and Growers; Farm Manager; Supervisor; Garden Centre Worker; Gardener; Greenkeeper; Groundsman; Landscaper

Suite Agricultural Crop Production; Livestock Production; Horticulture

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