

**U17002****Use and Maintain Equipment and Machines**

## Unit Descriptor:

This unit is about using equipment and machinery correctly and safely, with due regard to manufacturers' instructions and legal and regulatory requirements. It also covers the routine, day-to-day maintenance of this equipment, before and after use. It is for members of staff who can carry out the work described under limited supervision only.

The types of equipment and machinery included in this unit are:

- Non-powered tools and equipment (for example: hand tools, fertilizer distributors).
- Hand held powered equipment (for example: string trimmers, hedge cutters, hedge cutters, leaf blowers).
- Pedestrian controlled powered equipment (for example rotary mowers).
- Ride-on powered equipment (for example ride-on mowers).
- Chippers and/shredders.
- Identifying blockages and leaks.

Use of machinery and equipment and all actions must meet the requirements of the law and relevant codes of practice.

**NB: This unit does not cover the use of tractors or tractor mounted equipment other than small lawn/compact tractors.**

**ELEMENT****PERFORMANCE CRITERIA**

*To be competent you must achieve the following:*

- |                                |  |
|--------------------------------|--|
| 1. Use equipment and machinery | 1.1 Select the correct item of <b>equipment and machinery</b> for the planned task.      |
|                                | 1.2 Make sure that the <b>equipment and machinery</b> is safe and in good working order. |
|                                | 1.3 Select and use the correct personal protective clothing and equipment.               |

- 1.4 Use the **equipment and machinery** in accordance with the manufacturers' instructions and legal regulatory requirements.
- 1.5 Identify any problems with the **equipment and machinery** and take the correct **action**.
- 1.6 Clean and store the equipment correctly after use.
2. Carry out routine maintenance to equipment and machinery
  - 2.1 Make sure the **equipment and machinery** is correctly prepared for safe maintenance.
  - 2.2 Maintain **equipment and machinery** in accordance with manufacturers' instructions, standard procedure and legislation.
  - 2.3 Maintain health and safety in accordance with relevant legislation and codes of practice.
  - 2.4 Minimise the escape of substances and dispose of **waste** in a safe manner and place.
  - 2.5 Identify the need for advice and assistance and refer problems to the appropriate member of staff.

**RANGE STATEMENT**

*You must cover the items below:*

**Element 1: Use equipment and machinery****A. Use three of the following types of equipment and machinery:**

- (i) non-powered tools and equipment
- (ii) hand-held powered equipment
- (iii) pedestrian controlled powered equipment
- (iv) ride-on powered equipment

**B. Take the following types of actions:**

- (i) correct pre-use checks
- (ii) correct start-up procedures
- (iii) use the appropriate work method
- (iv) correct stopping procedure
- (v) correct post-use operate maintenance
- (vi) reporting problems to a more competent colleague

**Element 2: Carry out routine maintenance to equipment and machinery****A. Carry out routine maintenance to three of the following types of equipment and machinery:**

- (i) non-powered tools and equipment
- (ii) hand-held powered tools and equipment
- (iii) pedestrian controlled powered controlled
- (iv) ride-on powered equipment

**B. Handle and dispose of wastes which are**

- (i) hazardous
- (ii) non-hazardous

**UNDERPINNING KNOWLEDGE AND SKILLS**

1. How to select the correct items of machinery equipment for the tasks that you are responsible for.
2. How to check the equipment and machinery and the types of pre-operational maintenance that you are required to carry out.
3. The health and safety requirements that govern the use of the equipment and machinery in your area of responsibility.
4. The main hazards associated with using the equipment and machinery in your area of responsibility.
5. The manufacturer's instructions for the operation of the equipment and machinery in your area of responsibility.
6. The types of problems that may occur with the equipment and machinery you work with and how to deal with each of these correctly.
7. The principles of two and four stroke engines.
8. The principles of lines of drive – clutch, v-belts, chains.
9. Types of protective clothing and the reasons why they must be worn.
10. The correct ways of wearing personal protective equipment.
11. The legal and regulatory requirements that govern the use of the equipment and machinery in your areas of responsibility.
12. Methods for maintaining equipment and machines.
13. The reasons for maintaining equipment and machinery and the possible consequences of not maintaining it correctly.
14. Legislative requirements relating to the maintenance of equipment and machinery.
15. Health and safety in relation to the maintenance of equipment and machines and the usage of the work area.
16. Hazardous chemicals and substances which may be present and ways of minimizing leakage.
17. Safe and correct methods of disposing of waste materials.
18. Levels of or responsibility in relation to the maintenance of equipment and machinery and whom to go to for advice.
19. Safe and suitable methods of storing tools, equipment and machinery.

**EVIDENCE GUIDE**

*For assessment purposes:*

**(1) Critical Aspects of Evidence**

Assessment should involve observation of how you select and use equipment and machinery correctly and safely in accordance with manufacturers' instructions and current Safety and Health regulations. You should also demonstrate the routine, day-to-day maintenance of this equipment, before and after use.

Performance evidence must be provided for all of the performance criteria in this unit. However, where simulations are used to generate performance evidence, these should properly reflect the requirements of real working situations.

In demonstrating competence in the use of equipment and machinery it is necessary that you show that you can:

- A. Use all hand-held non powered tools and equipment relevant to your job.
- B. Use **two** of the following types of **equipment and machinery**.
  - (i) Hand-held powered tools and equipment
  - (ii) Pedestrian controlled powered equipment
  - (iii) Ride-on powered equipment
- C. Take the following types of **action**:
  - (i) Correct pre-use checks
  - (ii) Correct start-up procedure
  - (iii) Use appropriate work method
  - (iv) Correct stopping procedure
  - (v) Correct post-use operator maintenance
  - (vi) Report problems to a more competent colleague
- D. Carry out routine maintenance to hand-held non-powered tools and equipment. Carry out maintenance to **two** of the following types of **equipment and machinery**:
  - (i) Hand-held powered tools
  - (ii) Pedestrian controlled powered equipment
  - (iii) Ride-on powered equipment
- E. Handle and dispose of **wastes** which are:
  - (i) Hazardous
  - (ii) Non-hazardous

**(2) Methods of Assessment**

Observation by your assessor of you using and routinely maintaining:

- Hand-held non-powered tools and equipment (for example, hand tools, spray equipment, fertiliser distributors)
- Hand-held powered equipment (for example, string trimmers, hedge cutters, leaf blowers)
- Pedestrian controlled powered equipment (for example, rotary mowers)
- Ride-on powered equipment (for example, ride-on mowers)
- Chippers and/or shredders

Answers to written or oral questions from your assessor.

**(3) Context of Assessment**

Evidence from simulations **is** acceptable for this unit.