

RTC5303A**Unit Descriptor****Unit Sector****Manage machinery and equipment**

Manage machinery and equipment

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

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|-------------------------------------|---|
| 1. Evaluate machinery and equipment | <ul style="list-style-type: none">1.1 Operations of available machinery and equipment are reviewed and matched to production processes and OHS requirements.1.2 Operation and servicing costs of machinery and equipment are calculated to justify total purchasing price.1.3 Productivity returns from machinery and equipment are estimated to identify benefit to production processes.1.4 Machinery and equipment replacement cycles are monitored to identify improvement options and maximise life cycles of components.1.5 Machinery and equipment is accessed through appropriate procurement options. |
| 2. Coordinate maintenance | <ul style="list-style-type: none">2.1 Maintenance and service cycles are identified and scheduled to ensure servicing is according to manufacturers specifications and production processes.2.2 Storing and housing of machinery and equipment is costed and organised.2.3 Maintenance is documented and recorded to ensure operational and service history.2.4 OHS hazards in the workplace are identified, risk assessed and recorded according to enterprise requirements.2.5 Suitable personal protective equipment is selected, used, maintained and stored according to OHS requirements.2.6 Repair and maintenance routines are developed and monitored according to manufacturers specifications and OHS requirements. |
| 3. Monitor operations | <ul style="list-style-type: none">3.1 Consumables and operational support materials are available, maintained and disposed of according to enterprise requirements.3.2 Environmental implications and workplace safety practices are monitored according to OHS and enterprise requirements.3.3 Operational procedures are clear, documented and followed according to manufacturers specifications.3.4 Operators are provided with competent instruction and appropriate supervision according to OHS requirements. |

KEY COMPETENCIES

What processes should be applied to this competency standard? There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the key competencies, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

Key Competency	Example of Application	Performance Level
Communicating ideas and information	Ideas and information with regard to maintenance requirements and costings may be discussed with staff and suppliers.	3
Collecting analysing and organising information	Information with regard to the performance of machinery and equipment, faults and maintenance requirements, may be reported and organised by records.	3
Planning and organising activities	Activities involving managing maintenance requirements may be planned and coordinated with staff and work schedules.	3
Working with others and in teams	Team work may be applied in methods and procedures to monitor and carry out machinery and equipment maintenance.	3
Using mathematical ideas and techniques	Mathematical techniques may be applied in the calculation and measurement of volumes, weights and consumption particularly in relation to servicing requirements.	3
Solving problems	Equipment breakdown, faults or malfunctions will need to be arranged for repair or replacement to complete maintenance plan requirements.	3
Using technology	To access, communicate, monitor, measure and record information with regard to machinery and equipment maintenance, usage and performance.	3

RANGE STATEMENT

What machinery and equipment may be applicable to this standard?

Hydraulic equipment, agricultural and horticultural machinery and equipment, engines, irrigation equipment, earth moving equipment, spraying equipment, solar and wind powered equipment, lifting/elevated equipment, all vehicles/motorcycles, all types of park and turf maintenance machinery and equipment.

What hazards may be associated with these activities?	Workplace hazards may include exposure to loud noise and fumes, solar radiation, dust, and hazardous substances. It may also include oil and grease spills, electricity, mechanical malfunctions and entanglement with machinery and equipment from exposed moving parts including hydraulics.
What personal protective equipment may be relevant to this standard?	This may include boots, hat/hard hat, overalls, gloves, protective eyewear, safety harness, hearing protection, respirator or face mask, and sun protection (sun hat, sunscreen).
What OHS requirements may be relevant to this standard?	Safe systems and procedures for: • operating and maintaining machinery and equipment including hydraulics and guarding of exposed moving parts. • hazard and risk control. • manual handling including lifting and carrying. • the provision of safety decals and signage. • handling, application and storage of hazardous substances. • outdoor work including protection from solar radiation, dust and noise. • lock out or danger tag procedures. • protection of people in the workplace. • the appropriate use, maintenance and storage of personal protective clothing and equipment.
What procurement options may be considered?	Leasing, hiring, hire purchase, purchasing, share/part-purchasing, renting, and barter.
What storing and housing options may be considered?	On site, off site, seasonal, covered, open air, security and protected.
What consumables and operational support materials may be used and maintained?	Fuel, oils, lubricants, and battery levels. Wheels, tyres, fan belts, leads, lines, connections, and air filters.
What enterprise requirements may be applicable to this standard?	Standard Operating Procedures (SOP), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes, minimising downtime, product labels, manufacturers specifications, operator's manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and OHS procedures.

What environmental implications may be associated with machinery and equipment operation?

Negative environmental impacts may result from excessive noise and exhaust emissions, the incorrect use and disposal of maintenance debris (oil containers, chemical residues), and hazardous substances (fuel, fertiliser). Impacts may also include run-off flows of water and cleaning agents from servicing, maintenance and cleaning activities, soil disturbance and dust problems from machinery and equipment operation.

EVIDENCE GUIDE

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- Servicing and maintaining machinery and equipment within area of responsibility.
 - Methods of calculating the cost of machines and their contribution.
- Training and instruction techniques for directing the learning of staff.
- Relevant OHS issues, legislative requirements and Codes of Practice.
- Hazard identification, assessment and control.
- Environmental Codes of Practice with regard to maintenance of machinery and equipment and hazardous substances.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

- Monitor machinery and equipment operations.
- Identify and remove potential workplace hazards.
- Evaluate machinery and equipment.
- Identify skill needs of staff.
- Keep records, including machine maintenance histories.
- Use written and oral information about workplace requirements.
- Plan and organise work arrangements.
- Communicate orally, document plans and write reports for staff and management.
- Calculate resources, machinery and equipment and servicing costings.
- Identifying, assessing and controlling hazards.

Are there other competency standards that could be assessed with this one?

This competency standard could be assessed on its own or in combination with other competencies relevant to the job function.

Essential Assessment Information

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to both the **Assessment Guidelines** and the relevant **Sector Booklet**.