

RTC1302A**Assist with routine maintenance of machinery and equipment****Unit Descriptor**

Assist with routine maintenance of machinery and equipment

Unit Sector

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

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| 1. Prepare for basic routine maintenance | 1.1 Tools and supplies required to carry out basic routine maintenance tasks are identified, selected and provided on site according to supervisor's instructions . |
| | 1.2 Routine pre-operational checks of machinery and equipment are carried out and adjustments made according to manufacturers specifications and/or enterprise procedures. |
| | 1.3 Faulty or unsafe machinery and equipment are identified and segregated for repair or replacement according to enterprise requirements . |
| | 1.4 OHS hazards in the workplace are identified and reported to the supervisor. |
| 2. Carry out basic routine maintenance | 2.1 Suitable personal protective equipment is stored, selected, used and maintained according to OHS requirements. |
| | 2.2 Greasing, lubrication and other basic servicing of machinery and equipment is carried out according to operators manual /manufacturers specifications and supervisor's instructions. |
| | 2.3 Routine adjustments and repairs are made to machinery and equipment according to operators' manual/manufacturers specifications and supervisors instructions. |
| | 2.4 Work is conducted according to OHS requirements and completed to supervisor's satisfaction. |
| 3. Complete basic routine maintenance activities | 3.1 Tools are cleaned, returned to operating order and stored according to manufacturers specifications and enterprise requirements. |
| | 3.2 Environmental procedures are followed and waste from maintenance activities is collected, treated and disposed or recycled according to enterprise requirements. |
| | 3.3 Work area is cleaned and maintained according to OHS and enterprise requirements. |
| | 3.4 Malfunctions, faults, wear or damage to tools are reported to the supervisor according to enterprise 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	Information with regard to the operation of tools and application methods may be discussed with the supervisor.	1
Collecting analysing and organising information	Information with regard to the performance of machinery and equipment, identified faults and OHS concerns may be reported to the supervisor for repair and organised by records.	1
Planning and organising activities	Activities involving the cleaning of machinery and equipment and work area may be planned and coordinated around maintenance schedules or sequenced as required.	1
Working with others and in teams	In the application of communication, methods and procedures to complete scheduled maintenance tasks, e.g., isolating machinery with danger tags or lockout keys.	1
Using mathematical ideas and techniques	Basic mathematical techniques may be applied in the calculation and measurement of volumes and consumption in relation to lubrication requirements.	1
Solving problems	Faulty tools or malfunctions may be reported for repair and arrangements made for replacement in order to minimise disruption to maintenance schedules.	1
Using technology	To communicate, measure and record information with regard to tools and equipment usage and performance.	1

RANGE STATEMENT

What tools and supplies may be required to carry out routine basic maintenance?

Hand tools, personal protective equipment, hand held power tools, grease guns, cleaning and maintenance supplies including grease, fuel, oil, chemicals, water steam, power and air.

What may be involved in basic routine maintenance activities?

This may include dismantling and assembling procedures, testing, tightening, minor adjustments and repairs, and routine servicing procedures including lubricating, and checks of cooling system, fuel, grease and oil, and battery levels. It may also include inspections of tyre pressure, fan belts, leads, lines, connections, air filters, air conditioning, brakes, clutch, electrical, gearbox, hydraulics, steering, lighting, transmission, and confirmation of safety guards, PTO stubs and shafts.

How might supervisor's instructions be communicated?

Instructions may be received by verbal or written communication.

What may be involved in routine pre-operational checks of tools?

This may include routine safety and pre-start checks and preparatory procedures including cleaning, lubricating, hand sharpening, priming pumps, clearing filters, tightening, basic repairs and adjustments.

What enterprise requirements may be applicable to this standard?

Standard Operating Procedures (SOPs), industry standards, production schedules, Material Safety Data Sheets (MSDSs), work notes and plans, product labels, manufacturers specifications, operators' manuals, enterprise policies and procedures (including waste disposal, recycling and re-use guidelines), and supervisors oral or written instructions.

What OHS requirements may be relevant to this standard?

Systems and procedures for:

the safe maintenance of equipment including hydraulics and guarding of exposed moving parts

identifying and reporting hazards

- safe lifting, carrying and manual handling
- the provision of safety decals and signage
- the safe handling and storage of hazardous substances
- the appropriate use, maintenance and storage of personal protective equipment
- outdoor work including protection from solar radiation
- working in confined spaces
- the protection of people in the workplace
- protection from hazardous noise, organic and other dusts.

What hazards may be associated with maintenance activities?

This may include exposure to loud noise, exhaust fumes, solar radiation, dust, and hazardous substances. It may also include oil and grease spills, electricity, mechanical malfunctions, exposed moving parts including hydraulics, and overhead hazards such as powerlines.

What personal protective equipment may be relevant to this standard?

Boots, hat/hard hat, overalls, gloves, protective eyewear, hearing protection, safety harness, respirator or face mask, and sun protection (sun hat, sunscreen).

What range of machinery and equipment may be covered in this standard?

Hydraulic equipment, hydroplats, stationary engines, pumps, irrigation equipment, seeders, harvesters, balers, spraying equipment, hedging machines, solar and wind powered equipment.

What positive environmental procedures may be implemented?

This may include measures to reduce excessive noise and exhaust emissions, the safe use and disposal of maintenance debris including oil containers, fuel and chemical residues. It may also include preventative measures with regard to soil disturbance and increased run-off flows, and damage to natural areas caused by servicing, maintenance and cleaning activities.

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:

- Types, characteristics and functions of machinery and equipment.
- Machinery and equipment testing and operating procedures.
- Types, characteristics and functions of tools used in maintenance of machinery and equipment.
- OHS legislative requirements.
- Codes of Practice with regard to the use and control of hazardous substances and/or working in confined spaces.
- Environmental Codes of Practice with regard to maintenance activities.

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:

- Demonstrate safe and environmentally responsible workplace practices.
- Read and interpret manufacturers specifications, work and maintenance plans, safety decals and MSDSs.
- Measure and calculate volumes, consumption and lubrication requirements.

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**.