



Australian Government

Department of Education, Employment and Workplace Relations

RIIMPO316A Conduct self propelled compactor operations

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers conducting self-propelled compactor operations in the civil construction industry. It includes: planning and preparing; conducting machine pre-operational checks; operating and relocating the machine; and carrying out operator maintenance and clean up.

Application of the Unit

This unit is appropriate for those working in mobile plant operator roles, at worksites within:

- Civil construction

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Plan and prepare	1.1. Access, interpret and apply <i>compliance documentation</i> relevant to <i>self-propelled compactor operations</i> 1.2. Obtain, confirm and apply <i>work instructions</i> to the allotted task 1.3. Obtain, confirm and apply <i>safety requirements</i> to the allotted task 1.4. Identify, obtain and implement signage requirements from the project traffic management plan 1.5. Select plant, tools and equipment to carry out tasks that are consistent with the requirements of the job, and check them for serviceability and rectify or report any faults 1.6. Identify, confirm and apply <i>environmental protection requirements</i> to the allotted task
2. Conduct machine pre-operational checks	2.1. Carry out Pre-start, start-up, park and shutdown procedures 2.2. Check, rectify or report <i>compactor controls and functions</i> for serviceability and any faults
3. Operate self-propelled compactor	3.1. Identify site hazards and use safe operating techniques to minimise risk 3.2. Identify and apply operating techniques to achieve optimum output while achieving specified tolerances 3.3. Operate compactor to work instructions in accordance with procedures
4. Relocate the self-propelled compactor	4.1. Move the self-propelled compactor safely between worksites, observing relevant codes and traffic management requirements 4.2. Prepare the self-propelled compactor for relocation
5. Carry out machine operator maintenance	5.1. <i>Safely park</i> , shutdown and prepare the self-propelled compactor for maintenance 5.2. Conduct inspection and fault finding 5.3. Remove and replace defective parts safely and effectively 5.4. Carry out regular <i>programmed</i>

	<i>maintenance</i> tasks
6. Clean up	6.1. Clear work area and dispose of or recycle <i>materials</i> 6.2. Clean, check, maintain and store plant, <i>tools and equipment</i>

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to conduct self-propelled compactor operations:

- apply legislative, organisation and site requirements and procedures
- apply site and equipment safety requirements
- apply compactor operating techniques
- interpret drawings and sketches

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to conduct self-propelled compactor operations:

- self-propelled compactor types, characteristics, technical capabilities and limitations
- basic principles of soil technology for civil works
- basic principles of soil compaction
- site and equipment safety requirements
- self-propelled compactor techniques related to essential tasks
- processes for interpreting engineering drawings and sketches
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- materials safety data sheet (MSDS) and materials handling methods
- project quality requirements
- civil construction terminology
- methods of changing machine attachments
- safe operating techniques in all terrain
- basic earthworks calculations
- civil construction activity sequences of road construction, earthworks and drainage
- JSA's/Safe work method statement

Evidence Guide

<p>The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for conducting self-propelled compactor operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of self-propelled compactor operations: which are to include: <ul style="list-style-type: none"> • towing • levelling and compacting to construction specification and/or • spreading, covering, levelling and compacting landfill materials (tip) • communicating and working with others to undertake and complete self-propelled compactor operations that meet all of the required outcomes • consistent timely completion of self-propelled compactor operations that safely, effectively and efficiently meet the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of

	<p>assessment should not be greater than those required on the job.</p> <ul style="list-style-type: none"> • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
<p>Method of assessment</p>	<p>This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes which are to include: <ul style="list-style-type: none"> • towing • levelling and compacting to construction specification and/or • spreading, covering, levelling and compacting landfill materials (tip) • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • communicating and working with others to undertake and complete self-propelled

	compactor operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<p>Relevant compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • codes of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>A compactor:</p>	<ul style="list-style-type: none"> • is a self-propelled, tamping foot drum, wheeled machine, used to compact a variety of types of construction materials • it can operate at relatively high speeds and may have a dozer blade mounted on the front-end of the machine allowing for dozing, filling and compacting versatility • the tamping feet on the wheels of the machine may vary in size, shape and depth
<p>Self-propelled compactor operations are to include:</p>	<ul style="list-style-type: none"> • towing and levelling and compacting to specification (construction) or to spread, level, cover and compact (tip) materials
<p>Work instructions may include:</p>	<ul style="list-style-type: none"> • plans, specifications, quality requirements and operational details • quality requirements may include: dimensions, tolerances, standards of work and material standards as detailed in the project drawings, specifications and project documentation to meet client satisfaction
<p>Safety requirements may be from the site safety plan and organisational policies and procedures and include:</p>	<ul style="list-style-type: none"> • protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control and hazardous materials and substances • safe operating procedures to recognise hazards and prevent risks associated with underground and overhead services, other machines,

	<p>personnel, restricted access barriers, traffic control, working at heights, working in proximity to others, worksite visitors and the public</p> <ul style="list-style-type: none"> • emergency procedures, including: emergency shutdown and stopping, extinguishing fires, organisational First Aid requirements and evacuation • hazards and risks, which may include: uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials
<p>Environmental protection requirements are obtained from project environmental management plan and may include:</p>	<ul style="list-style-type: none"> • organisational/project environmental management plan, waste management, water quality protection, noise, vibration, dust and clean-up management
<p>Compactor controls and functions include:</p>	<ul style="list-style-type: none"> • implements or other attachments, brakes and manoeuvrability
<p>Safe parking practices is to include:</p>	<ul style="list-style-type: none"> • ensuring access ways are clear, equipment/machinery is away from overhangs and refuelling sites, safe distance from excavations, and secured from unauthorised access or movement
<p>Programmed maintenance is to include:</p>	<ul style="list-style-type: none"> • cleaning, authorised servicing and the monitoring, recording and reporting of faults
<p>Programmed maintenance may include:</p>	<ul style="list-style-type: none"> • authorised minor replacements and the provision of assistance to maintenance personnel during maintenance and repair activities
<p>Materials may include:</p>	<ul style="list-style-type: none"> • clays, silts, stone, gravel, mud, rock, sand, topsoil, timber, blended materials, organic materials, light scrub, grasses and bituminous mixes • rock types may include metamorphic, igneous and sedimentary • landfill may include household and commercial waste and soil
<p>Tools and equipment are to include:</p>	<ul style="list-style-type: none"> • hand tools and maintenance equipment relevant to the particular compactor

Unit Sector(s)

Mobile Plant Operations

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.