



Australian Government

Department of Education, Employment and Workplace Relations

MEM18040B Maintain suspension systems

Release: 1

MEM18040B Maintain suspension systems

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers assessing, maintaining and repairing/replacing suspension systems.
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Application of the Unit

Application of the unit	This unit applies to maintenance and repair/replacement activities associated with suspension systems of all types of wheeled and/or tracked plant/vehicles. Band: A Unit Weight: 4
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		
Path 1	MEM09002B	Interpret technical drawing
	MEM12023A	Perform engineering measurements
	MEM18001C	Use hand tools
	MEM18002B	Use power tools/hand held operations
	MEM18055B	Dismantle, replace and assemble

Prerequisite units		
		engineering components

Employability Skills Information

Employability skills	This unit contains employability skills.
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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. Assess suspension systems	1.1. Steering geometry, alignment and suspension systems operation and terminology are understood. 1.2. Components are assessed for security, wear and faults and corrective action is determined. 1.3. Spring arrangements, control arms/links, dampening and control devices are tested for correct operation. 1.4. Axle alignment/tracking is assessed and variance from specification is determined. 1.5. Auto/manual levelling devices performance is tested.
2. Maintain suspension systems	2.1. Axles are aligned to specification. 2.2. Ride height is adjusted to specification. 2.3. Suspension system is re-gassed to specification. 2.4. Suspension components are safely removed and replaced according to standard procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Look for evidence that confirms skills in:

- reading, interpreting and following information on written job instructions, specifications, standard operating procedures, charts, lists, drawings and other applicable reference documents
- planning and sequencing operations
- checking task-related information
- checking the suspension components for wear, faults and security
- testing spring arrangements, control arms/links and dampening devices for correct operation
- checking axle alignment/tracking for conformance to specification
- identifying variances of axle alignment from specification
- testing automatic/manual levelling devices for correct operation
- aligning axles to specification
- adjusting the ride height to specification
- re-gassing the suspension system to specification

REQUIRED SKILLS AND KNOWLEDGE

- removing and replacing suspension components
- undertaking calculations and numerical operations within the scope of this unit
- recording and reporting service activities

Required knowledge

Look for evidence that confirms knowledge of:

- the operation of suspension systems and the effects of steering geometry and alignment
- the procedures, tools, techniques and equipment for checking suspension system components for wear, faults, security and conformance to specification
- the action to be taken to correct non-conformance to specification
- the procedures for aligning axles
- the axle alignment specifications
- the tools, techniques and equipment required to maintain and repair suspension systems
- the reasons for selecting the chosen tools, techniques and equipment
- the procedures for adjusting ride height
- the ride height specifications
- the procedures to be followed in re-gassing suspension systems
- the precautions to be taken when re-gassing suspension systems
- the procedures for the removal and replacement of suspension systems
- the precautions to be taken when removing/replacing suspension systems
- hazards and control measures associate with maintaining and rectifying suspension systems, including housekeeping
- safe work practices and procedures

Evidence Guide

EVIDENCE GUIDE

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.

Overview of assessment

A person who demonstrates competency in this unit must be able to maintain suspension systems. Competency in this unit cannot be claimed until all prerequisites have been satisfied.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with maintaining suspension systems or other units requiring the exercise of the skills and knowledge covered by this unit.

Method of assessment

Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.

EVIDENCE GUIDE**Guidance information for
assessment****Range Statement****RANGE STATEMENT**

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.

Unit Sector(s)

Unit sector	
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Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
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