



Australian Government

AURTTA3020 Apply heat-induction processes

Release 1

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Modification History

Release	Comment
Release 1	New unit of competency

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes required to apply heat using induction processes when repairing vehicle chassis and components. Work involves identifying and confirming work requirements, preparing for work, selecting heat-induction equipment, applying methods and heat settings according to original equipment manufacturer (OEM) specifications, and completing clean-up and documentation. The process requires accurate control of heat to damaged vehicle sections in line with OEM specifications. Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions. Users are advised to check with the relevant regulatory authority.
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Application of the Unit

Application of the unit	Work applies to the use of a heat-induction process for the repair of vehicle chassis and components. Work is undertaken at a body repair technician level. Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment. Work is carried out according to award provisions. Vehicles may include heavy vehicle trucks, buses, commercial vehicles, and agricultural and recreational vehicles.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

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 required performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge and/or 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. Determine job requirements	1.1.Job specifications and repair requirements are interpreted and determined from job sheet and work instructions 1.2.Appropriate workplace health and safety (WHS) practices are identified and adhered to according to WHS, legislative and workplace requirements 1.3.Information is accessed from appropriate source to enable induction heating to be performed according to OEM-recommended procedures
2. Plan and prepare to undertake the work	2.1.Approved induction heat range and heating methods are accessed and used according to OEM specifications on a range of materials 2.2.Equipment and resources are identified and inspected for compliance with OEM and job repair specifications 2.3.Relevant heat-induction procedures, repair plans, drawings and reference texts are selected according to job sheet instruction 2.4.Work is planned in detail in line with vehicle specifications, heating sequence and workplace procedures 2.5.Work areas are prepared according to WHS, legislative and workplace requirements 2.6.Potential hazards are identified and prevention measures selected according to workplace procedures 2.7.Work quality and completion details are finalised according to workplace procedures
3. Conduct work	3.1.Induction heating activities are completed without causing damage to workplace property, vehicles, systems or components 3.2.Heat-induction settings are adjusted and supervised according to OEM, industry and workplace standards 3.3.Repairs to damaged components are carried out according to OEM-recommended procedures and industry and workplace quality standards
4. Clean up work area and maintain equipment	4.1.Work area is cleaned and tidied according to workplace procedures 4.2.Waste and scrap materials are removed following workplace and environmental requirements and procedures 4.3.Tools and equipment are checked and faulty items are identified and tagged 4.4.Equipment maintenance activities are completed according to workplace and manufacturer specifications

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- communication skills to:
 - follow OEM and job specifications
 - follow workplace verbal instructions
- initiative and enterprise skills to recognise a workplace problem or potential problem and take action
- learning skills to identify sources of information, assistance and expert knowledge to expand skills, knowledge and understanding
- literacy skills to:
 - read and follow information in written job instructions, specifications, standard operating procedures, charts, lists, drawings and other reference documents
 - document heat-induction repair procedures and required parts
- numeracy skills to interpret and calculate heat settings and repair measurements
- planning and organising skills to:
 - plan work requirements and prioritise repair activities to achieve required outcomes and ensure tasks are completed on time
 - identify risk factors and take action to minimise them
- problem-solving skills to:
 - refer problems outside area of responsibility to appropriate person
 - seek information and assistance as required to solve problems
- self-management skills to:
 - select and use appropriate heat-induction equipment
 - recognise own limitations and seek advice
 - follow workplace policies and documentation, including industry codes of practice and procedures
- teamwork skills to:
 - work with diverse individuals and groups
 - apply knowledge of own role to complete activities efficiently to support team activities and tasks
- technical skills to:
 - use workplace tools and equipment relating to the heat-induction process
 - correctly use specialist tools and equipment

Required knowledge

- WHS and personal safety requirements
- technical documentation covering procedures, specifications, schedules and work plans

REQUIRED SKILLS AND KNOWLEDGE

- industry quality standards, including work instructions, procedures, and performance and inspection processes
- cost minimisation and waste avoidance policies, procedures and practices
- environmental protection requirements relating to the disposal of waste material
- established communication channels and protocols
- problem-identification and resolution techniques
- procedures for the correct use of heat-induction equipment
- safety requirements for heat-induction equipment
- material types suitable for the application of heat-induction process

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, the Range Statement and the Assessment Guidelines for the Training Package.

Overview of assessment

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

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria and required skills and knowledge.

A person who demonstrates competency in this unit must be able to:

- comply with relevant legislation, regulations, standards, codes of practice and workplace policies and procedures
- maintain working knowledge of current work system and practices
- work and communicate effectively with others involved in the work
- apply job requirements in relation to:
 - achieving induction heating goals
 - achieving work quality goals
 - responding positively to changing work requirements
- effectively apply problem-solving techniques
- modify activities to cater for variations in workplace context and environment
- interpret and communicate operational information
- comply with WHS requirements
- conduct heat-induction processes.

Context of, and specific resources for assessment

Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects performance in a real workplace setting.

Assessment is to occur:

- using standard workplace practices and procedures
- following workplace safety requirements
- applying environmental constraints.

Assessment is to comply with relevant:

- regulatory requirements
- Australian standards
- industry codes of practice.

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Overview of assessment

The following resources must be made available for the assessment of this unit:

- safe work environment
- OEM repair specification
- heat-induction equipment
- workplace or simulated repair activity
- hand tools.

Method of assessment

Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.

Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with the application of required skills and knowledge.

Assessment methods must be by direct observation of tasks and include questioning on required skills and knowledge to ensure correct interpretation and application.

Competence in this unit may be assessed in conjunction with other units which together form part of a holistic work role.

Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate the needs of diverse clients.

Assessment processes and techniques must be culturally sensitive and appropriate to the language, literacy and numeracy capacity of the candidate and the work being performed.

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, 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.

WHS requirements:

- are those prescribed under legislation, regulations, codes of practice and policies and procedures
- may include:
 - use of personal protective equipment and clothing
 - use of fire-fighting equipment
 - first aid equipment
 - control and elimination of hazards and risks
 - systems covering the use of hazardous materials and substances
 - manual-handling procedures, including for lifting and carrying.

Legislative requirements
may include:

- applicable legislation, regulations and codes of practice, including those relating to:
 - award and enterprise agreements
 - duty of care
 - employee relations
 - environment protection
 - industry codes of practice.

Workplace requirements
may include:

- environmental management: waste disposal, recycling and re-use guidelines
- emergency and evacuation procedures
- procedures for the use of heat-induction equipment
- legal obligations
- maintenance and storage procedures
- WHS requirements
- workplace guidelines
- policies and procedures relating to own role and responsibility
- instruction manuals
- quality assurance guidelines
- quality and continuous improvement processes and standards
- recording and reporting guidelines.

Information may include:

- OEM-recommended repair specifications
- workplace operating procedures

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	- customer requirements - industry codes of practice - material safety data sheets (MSDS) - state and territory WHS legislation.
Resources may include:	- hand tools - heat-induction equipment - components for repair - identification of materials used by OEM in chassis and body components - job sheets, drawings and work instructions - workplace or simulated workplace.
Standards may include:	- industry regulations and guidelines - OEM repair guidelines - WHS legislation - workplace quality procedures.
Environmental requirements may include:	- measures to reduce pollution - waste management - noise control - dust control - clean-up management.

Unit Sector(s)

Competency field	Mechanical Miscellaneous
Unit sector	Technical

Custom Content Section

Not applicable.