



Australian Government

Department of Education, Employment and Workplace Relations

AURV326708A Carry out major sectional repair

Release: 1

AURV326708A Carry out major sectional repair

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the competence required to carry out sectional replacement/repair operations on a vehicle with major damage.
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Application of the Unit

Application of the unit	<p>The unit includes identification and confirmation of work requirement, preparation for work, the selection of the repair method, removal of damaged components, the restoration of damaged components, the replacement and alignment of components and completion of work finalisation processes, including clean-up and documentation.</p> <p>Work requires individuals to demonstrate judgement and problem-solving skills in managing own work activities and contributing to a productive team environment.</p> <p>Work is carried out in accordance with award provisions.</p>
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

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. Prepare for work	<p>1.1. Work instructions are used to determine the job requirements, including method, materials and equipment.</p> <p>1.2. Job specifications are read and interpreted.</p> <p>1.3. OH&S requirements, including dust and fume collection, breathing apparatus, eye and ear personal protection needs are observed throughout the work.</p> <p>1.4. Material for repair is selected.</p> <p>1.5. Equipment and tooling are identified and checked for safe and effective operation.</p> <p>1.6. Procedures are determined to minimise waste material.</p> <p>1.7. Procedures are identified for maximising energy efficiency while completing the job.</p>
2. Perform major sectional repairs	<p>2.1. Sections not subject to repair are protected, using approved methods and equipment.</p> <p>2.2. Damaged sections are removed using approved methods and equipment.</p> <p>2.3. Damaged surfaces are restored to a condition suitable for the fitting of new sections.</p> <p>2.4. Jig alignment fixtures are prepared and adjusted in accordance with equipment manufacturer/component supplier specification.</p> <p>2.5. Replacement sections are aligned and secured within the tolerance for the particular vehicle.</p> <p>2.6. Sections are refitted using approved methods, materials and equipment.</p> <p>2.7. Sealant is selected and applied according to the manufacturer/component supplier specification for type method of application and thickness.</p> <p>2.8. Major sectional repairs are completed without causing damage to any component or system.</p> <p>2.9. Removal and fitting activities are carried out according to industry regulations/guidelines, OH&S legislation, and enterprise procedures/policies.</p>
3. Clean up work area and maintain equipment	<p>3.1. Material that can be reused is collected and stored.</p> <p>3.2. Waste and scrap is removed following workplace and environmental procedure.</p> <p>3.3. Equipment and work area are cleaned and inspected for serviceable condition in accordance with</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>workplace procedures.</p> <p>3.4. Unserviceable equipment is tagged and faults identified in accordance with workplace requirements.</p> <p>3.5. Operator maintenance is completed in accordance with manufacturer/component supplier specifications and worksite procedures.</p> <p>3.6. Tooling is maintained in accordance with workplace procedures.</p>

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- collect, organise and understand information related to work orders, plans and safety procedures for vehicle body major sectional repair
- communicate ideas and information to enable confirmation of work requirements and specifications, coordination of work with worksite supervisor, other workers and customers, and the reporting of work outcomes and problems
- plan and organise activities, including preparation and layout of worksite and obtaining of equipment and materials to avoid backtracking, workflow interruptions or wastage
- work with others and in a team by recognising dependencies and using cooperative approaches to optimise workflow and productivity
- establish safe and effective work processes which anticipate and/or resolve problems and downtime, to systematically develop solutions to avoid or minimise reworking and avoid wastage
- use mathematical ideas and techniques to calculate time, assess tolerances, apply accurate measurements, calculate material requirements and establish quality checks
- use workplace technology related to major sectional repair, including the use of specialist tooling and equipment, measuring equipment, computerised technology and communication devices and the reporting/recording of results

Required knowledge

A working knowledge of:

- OH&S regulations/requirements, equipment, material and personal safety

REQUIRED SKILLS AND KNOWLEDGE

requirements

- types of steels and repair characteristics
- sectional repair procedures
- manufacturer/component supplier specifications
- use of tooling and equipment
- alignment methods/techniques and procedures
- bonding methods and procedures
- bonding and sealant selection and application techniques
- manual handling techniques
- work organisation and planning processes
- enterprise quality processes

Evidence Guide

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>	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	<p>It is essential that competence is fully observed and there is ability to transfer competence to changing circumstances and to respond to unusual situations in the critical aspects of:</p> <ul style="list-style-type: none"> • observing safety procedures and requirements • communicating effectively with others involved in or affected by the work • selecting methods and techniques appropriate to the circumstances • completing preparatory activity in a systematic manner • applying vehicle protection methods • selecting the repair method most appropriate to the circumstances • completing major sectional repair which, at a minimum, is to sectionalise a skirt and rail section or equivalent • completing workplace/equipment documentation.
Context of, and specific resources for assessment	<p>Application of competence is to be assessed in the workplace or simulated worksite.</p> <p>Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.</p> <p>Assessment is to comply with regulatory requirements, including Australian Standards.</p> <p>The following resources should be made available:</p> <ul style="list-style-type: none"> • workplace location or simulated workplace • materials relevant to major sectional repair • equipment, hand and power tooling appropriate to major sectional repair • activities covering mandatory task requirements • specifications and work instructions.
Method of assessment	<ul style="list-style-type: none"> • Assessment must satisfy the endorsed assessment guidelines of the automotive industry's RS&R Training Package. • Assessment methods must confirm consistency and accuracy of performance together with application of

EVIDENCE GUIDE	
	<p>underpinning knowledge.</p> <ul style="list-style-type: none"> • Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies. • Assessment may be applied under project related conditions and require evidence of process. • Assessment must confirm a reasonable inference that competence is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances. • It is preferable that assessment reflects a process rather than an event and occurs over a period of time to cover varying quality circumstances. Evidence of performance may be provided by customers, team leaders/members or other persons subject to agreed authentication arrangements. • Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.
Guidance information for assessment	

Range Statement

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>	
Major sectional repairs	Major sectional repair may include in situ panels, double panels, box panels, sill panels, chassis, frame, turrets, a variety of high stress steels, and plastic body panels.
Visual inspections	Visual inspection is to cover body, underbody and mechanical damage.

RANGE STATEMENT	
Repair methods	<ul style="list-style-type: none"> • Repair methods are to include: <ul style="list-style-type: none"> • underbody or frame measurements in conjunction with alignment equipment, including identification of underbody damage, sway, sag and/or twist. • pre-repair activities, hydraulic reforming, sectional repair, including a range of joins, e.g. staggered and traffic authority approved methods • visual, mechanical and physical examination • panel beating, welding (oxy acetylene, MIG, TIG and spot), mechanical fastening, riveting, metal cutting, bonding and windowing • removal and replacement of mechanical, suspension, steering transmissions and other assemblies/ components. • Repair methods may include heating, metal finishing and filling.
OH&S	OH&S requirements are to be in accordance with legislation/regulations/codes of practice and enterprise safety policies and procedures. This may include protective clothing and equipment, use of tooling and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, enterprise first aid, hazard control and hazardous materials and substances.
Personal protective equipment	Personal protective equipment is to include that prescribed under legislation/regulation/codes of practice and workplace policies and practices.
Safe operating procedures	Safe operating procedures are to include, but are not limited to operational risk assessment and treatments associated with vehicular movement, toxic substances, electrical safety, machinery movement and operation, manual and mechanical lifting and shifting, working in proximity to others and worksite visitors.
Emergency procedures	Emergency procedures related to this unit are to include, but are not limited to emergency

RANGE STATEMENT	
	shutdown and stopping of equipment, extinguishing fires, enterprise first aid requirements and worksite evacuation.
Environmental requirements	Environmental requirements are to include but are not limited to waste management, noise, dust and clean-up management.
Quality requirements	Quality requirements are to include, but are not limited to regulations, including Australian Standards, internal company quality policy and standards and enterprise operations and procedures.
Statutory/regulatory authorities	Statutory/regulatory authorities may include Federal, State/Territory and local authorities administering acts, regulations and codes of practice.
Tooling and equipment	Tooling and equipment may include hand tooling, power tooling and equipment, heating and welding equipment, (including oxy acetylene, arc, MIG, TIG), lifting and hydraulic push/pull equipment, measuring system, vehicle alignment bench, including a range of clamping and anchoring procedures/methods.
Materials	Materials may include welding consumables, sealants and cleaning materials.
Communications	Communications are to include, but are not limited to verbal and visual instructions and fault reporting and may include worksite specific instructions, written instructions, plans or instructions related to job/task, telephones and pagers.
Information/documents	Sources of information/documents may include: <ul style="list-style-type: none"> • verbal or written and graphical instructions, signage, work schedules/plans/specifications, work bulletins, memos, material safety data sheets, diagrams or sketches • Safe work procedures related to major sectional repair • Regulatory/legislative requirements pertaining to automotive industry, including Australian

RANGE STATEMENT

	<p>Design Rules</p> <ul style="list-style-type: none"> • Engineer's design specifications and instructions • Organisation work specifications and requirements • Instructions issued by authorised enterprise or external persons • Australian Standards.
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Unit Sector(s)

Unit sector	Vehicle body
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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