MODULE MEC3180: DAMAGE REPAIR 1

Level: Advanced

Theme: Suspension and Structural Systems

Prerequisite: MEC2170 Metal Repair & Finishing

Module Description: Students examine the methods used to complete a repair involving removing, replacing and aligning of body parts.

Module Parameters: Access to specialized body tools, hand tools and related resources.
Note: The student must have access to instruction from an individual with journeyman qualifications if students are involved in customer work.

Supporting Module: MEC3170 Damage Analysis

Curriculum and Assessment Standards

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
The student will:	*Assessment of student achievement should be based on:*	
• demonstrate established safety procedures	• observed performance related to the safe handling and use of tools and equipment. *Assessment Tool* *Task Assessment Checklist: Damage Repair 1, Part 1, MEC3180–1* *Standard* *Performance rating of 3 on each criteria*	10
• follow an approved sequence of repairs involving removing and replacing damaged external parts	• observed performance in: – organizing work and work-site – analyzing correct repair sequence – removal of parts and accessories required. *Assessment Tool* *Task Assessment Checklist: Damage Repair 1, Part 2, MEC3180–1* *Standard* *Performance rating of 3 on each criteria*	25

Module Learner Expectations	Assessment Criteria and Conditions	Suggested Emphasis
The student will:	*Assessment of student achievement should be based on:*	
• align parts used to repair and prepare components for painting or priming	• observed performance related to the ability to: – repair parts that can be repaired – replace parts and correctly align showing knowledge of alignment principles. *Assessment Tool* *Task Assessment Checklist: Damage Repair 1, Part 3, MEC3180–1* *Standard* *Performance rating of 3 on each criteria*	40
• remove, repair or replace trim parts as required	• observed performance in: – using problem-solving skill to assess and repair damage – listing parts and/or repairs required – estimating cost of repair and making cost effective decision – replacing or repairing trim. *Assessment Tool* *Task Assessment Checklist: Damage Repair 1, Part 4, MEC3180–1* *Standard* *Performance rating of 3 on each criteria*	25
• demonstrate basic competencies.	• observations of individual effort and interpersonal interaction during the learning process. *Assessment Tools* *Basic Competencies Reference Guide and any assessment tools noted above*	Integrated throughout

Concept	Specific Learner Expectations	Notes
Health/Safety Hazards	*The student should:* • demonstrate knowledge of and follow established lab procedures • demonstrate approved safety procedures in the use of jacks, jack stands, impact wrenches, torches, plasma arc and abrasive cutters to remove or replace parts	Consideration must be given to techniques that prevent damage to adjacent surfaces or parts.

Concept	Specific Learner Expectations	Notes
Health/Safety Hazards (continued)	*The student should:* • demonstrate knowledge, skills and attitudes in the safe use of hand tools.	
Inspect/Report	• examine damage to external parts and identify appropriate repair sequence • complete a list of required parts and show cost-effectiveness of using aftermarket or used parts • list methods used in the manufacture of vehicles to align adjacent parts, including shims, slotted holes and bending • examine the bumper shock system and explain the effects of collision to "bumper shocks" and their alignment • describe the importance of correct alignment of body parts and the effects of "misalignment," both aesthetically and physically • explain the function of trim • identify methods of trim fastening.	
Inspect/Repair	• successfully remove trim and damaged parts, showing knowledge of tools and care for property • demonstrate knowledge and skill in the preparation of existing flanges, edges and mounting points used for replacement of new parts • safely remove and replace a door, hood and/or trunk lid • replace and align a fender • install new or original trim and recognize the value of using OEM trim parts.	
Careers	• identify further education and work opportunities related to structural damage repair.	