



Australian Government

Assessment Requirements for AURJTD105

Diagnose complex faults in motorcycle steering and suspension systems

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose complex steering and suspension system faults in at least three different motorcycles, including:
 - at least one steering system fault
 - at least one suspension system fault
- develop a testing strategy in the course of the above work to diagnose the cause of at least two of the following types of complex faults:
 - an intermittent fault
 - a fault that affects more than one system
 - a fault introduced as a result of a system repair
 - an indirect fault caused by the influence of external systems.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose complex faults in motorcycle or ATV steering and suspension system, including:
 - motorcycle or ATV steering and suspension system manufacturer specifications
- workplace procedures required to diagnose complex faults in motorcycle or ATV steering and suspension systems, including:
 - establishing the serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:
 - examination of tools and equipment
 - storage of equipment

- identification, tagging and isolation of faulty equipment
- safe disposal of materials
- recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing complex faults in motorcycle steering and suspension systems, including procedures for:
 - lifting and supporting motorcycles
 - working with stored energy in springs
 - handling steering system bearing grease
- environmental requirements relating to motorcycle steering and suspension systems
- types of complex faults relating to motorcycle steering and suspension systems, including:
 - intermittent
 - multi-system
 - introduced as a result of system repair
 - indirect, caused by the influence of external systems
- testing procedures for motorcycle steering and suspension systems, including:
 - abnormal noise analysis
 - component failure analysis
- types and key features of motorcycle steering and suspension systems, including:
 - telescopic forks, including:
 - fork tubes
 - gaiters
 - stanchions
 - triple clamps
 - steering dampers
 - upside down forks
 - anti-dive fork systems
 - trailing link fork suspension
 - leading link fork suspension, including:
 - springer fork
 - Earles fork
 - girder fork
 - Saxon-Motodd (telelever) fork
 - duolever front suspension (Hossack or Fior)
 - coaxial steering front suspension
 - non-fork front suspension, including hub centre steering
 - rear suspension, including:
 - twin shock swingarm
 - monoshock swingarm
 - monoshock single sided swingarm
 - rear monolever

- rear paralever
- steering angles, including:
 - wheelbase
 - trail
 - offset
 - rake angle.

Assessment Conditions

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

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the motorcycle steering and suspension systems that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer motorcycle steering and suspension specifications
- three different motorcycles with complex faults in their steering and suspension systems
- diagnostic equipment for motorcycle steering and suspension systems
- tools, equipment and materials appropriate for diagnosing complex faults in motorcycle steering and suspension systems.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>