



Australian Government

**Assessment Requirements for
FWPCOT3329 Perform complex four wheel
drive operations**

Release: 1

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Modification History

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 7.0.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has:

- assessed three separate ascents and three separate descents greater than 15 degrees for the safest route and the most appropriate wheel placement
- driven three separate ascents and three separate descents greater than 15 degrees, having selected appropriate range and gearing and using the most appropriate wheel placement
- used traction aids and/or brakes when driving ascents and descents greater than 15 degrees on one occasion
- performed a forward and a reverse stop start recovery on an incline according to the type of transmission on two occasions
- demonstrated the setting of vehicle controls for operation in complex terrain on one occasion. This must include:
 - the use of free wheel hubs, if fitted
 - selection of low range in either manual or automatic vehicles
 - use of differential locks, if fitted
 - activation of traction control or terrain selection mode, if fitted and where effective
- driven vehicle in difficult terrain and operated vehicle controls and technology to avoid traction loss in three of the following conditions:
 - mud
 - rocky
 - sand
 - side slopes
 - rutted
- completed two water crossing of at least axle depth
- recorded and reported repairs or replacement or damaged items on two occasions
- fitted and used personal protective equipment (PPE).

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- four wheel drive systems:
 - differences between four wheel drive, two wheel drive and all-wheel drive vehicles
 - types and operating principles of different four wheel drive systems
- planning trips
- sources of information for weather forecasts and road/track conditions:
 - water and food requirements for trip
 - emergency communication methods
 - first aid and first aid kit
- procedures for:
 - pre-departure vehicles check
 - track assessment
 - wheel placement over rutted, broken ground
 - using traction aids
 - driving ascents and descents greater than 15 degrees
 - performing a safe stop and start forward down a slope (greater than 15 degrees) and in reverse down a slope in manual or automatic vehicle
 - performing a water crossing of at least axle depth
 - driving in loose ground such as mud and sand
 - vehicle shutdown
- vehicle selection for complex four wheel drive activity:
 - high and low range or similar capability
 - requirement for wading depth according to manufacturer specifications
 - types, purpose and use of traction aids
 - types and uses of tyres for complex four wheel drive activity
 - impact of tyre pressure on traction
 - Gross Vehicle Mass (GVM) or Gross Vehicle Weight (GVW)
 - impact of loading and accessories on GVM or GVW
- type and use of personal protective equipment required for complex four wheel drive activity
- type of emergency equipment used in complex four wheel drive activity
- type and use of communications equipment used in remote locations
- purpose and procedures for securing loads
- types of road surfaces and impact on traction when ascending or descending steep slopes
- impact of wet weather on track conditions
- environmental impact of four wheel drive use on wet unsealed roads
- techniques for four wheel driving in difficult terrain
- reasons and procedure for post-trip vehicle inspection

- water crossings:
 - assessment of water crossings, including water base, water depth, flow rate and debris
 - vulnerable aspects of vehicle when completing water crossings
 - environmental impact of water crossings.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - skills must be demonstrated in a work environment or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - site with access to a water crossing and difficult terrain with safe entry into and out of a waterway, shallow run-ins and a firm base. Simulated water crossings are acceptable for assessment if no suitable crossing is available due to little or no water level or flooded and unsafe to cross
 - manual or automatic four wheel drive vehicle with a low range transmission or equivalent
 - PPE required for operating a four wheel drive in difficult conditions and waterways
- specifications:
 - workplace safety and environmental policies and procedures applicable to the use of four wheel drive vehicles in difficult conditions and waterways.

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

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>