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# Level 2 CERTIFICATE OF COMPETENCE IN OFF ROAD DRIVING

# **ASSESSMENT SCHEDULE**

# NPTC Level 2 Certificate of Competence in Off Road Driving

# Information for Candidates and Assessors

# Introduction

The scheme will be administered by NPTC.

# NPTC will:

- Publish -Scheme regulations
  - -Assessment schedule
  - -Assessment material
- Approve centres to co-ordinate and administer the scheme
- Set standards for the training of Verifiers and Assessors
- Recruit, train and deploy Verifiers
- Manage verification
- Issue certificates to successful Candidates

#### The Certificate of Competence

Certificates of competence will be awarded to Candidates who achieve the required level of competence in the Units to which their Certificate relates.

#### Instruction

Attendance at a course of instruction is not a pre-requisite for an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standards that will be expected of them when they are assessed.

NPTC does **not** hold a register of instructors; however instruction will normally be available from recognised training providers and/or centres of further or higher education active in the areas covered by this certificate. Further information on training may be obtained from the centre.

#### **Access to Assessment**

Assessment Centres will be responsible for arranging assessment on behalf of a Candidate. Assessment may only be carried out by an Assessor approved by NPTC for that scheme. Under no circumstances can either instructors involved in the preparation of candidates, or the candidates work place supervisors, or anyone else who might have a vested interest in the outcome, carry out the assessment.

The minimum age limit for Candidates taking certificates of competence is 16 years. There is no upper age limit.

#### Assessment

Assessment is a process by which it is confirmed that the Candidate is competent in the Units within the award to which the assessment relates. It is a process of collecting evidence about his/her capabilities and judging whether that evidence is sufficient to attribute competence.

The candidate must be registered through an NPTC approved Assessment Centre for this qualification <u>prior</u> to assessment.

The result of the assessment will be recorded on the assessment report form.

The schedule of assessment contains the criteria relating to:

- Observation of practical performance
- Assessment of knowledge and understanding

# **Performance Evaluation**

The result of each assessment activity is evaluated against the following criteria:

- 4 = Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge, with no 'minor' or 'critical' faults. (Competent).
- 3 = Meets the requirements of the assessment criteria for both the practical performance and the underpinning knowledge, with some 'minor' faults but no 'critical' faults. (Competent).
- 2 = Does not fully satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or being deficient in underpinning knowledge leading to the recording of minor faults. (Not yet competent).
- 1 = Does not satisfy the requirements of the assessment criteria, being unable to perform the practical task satisfactorily or safely or being deficient in underpinning knowledge leading to the recording of a critical fault. (Not yet competent).

A list of registered Assessment Centres is available from NPTC. (www.nptc.org.uk)

# Verification

Verification is a process of monitoring assessment; it is an essential check to confirm that the assessment procedures are being carried out in the way that NPTC has laid down. The overall aim of verification is to establish a system of quality assurance that is acceptable in terms of both credibility and cost effectiveness.

Approved Assessors will be subject to a regular visit by the verifier at a time when assessments are being undertaken.

A selection of assessment reports completed by the assessor will be evaluated by an NPTC approved verifier.

Compliance with the verification requirements is a pre-requisite for Assessors remaining on NPTC's list of approved assessors.

#### **Complaints and Appeals**

NPTC and its Assessment Centres have a formal Complaints and Appeals procedure. In the event of a any dissatisfaction with the arrangements and conditions of assessment, the candidate should first contact the Assessment Centre through whom the assessment was arranged and submit the complaint in writing.

This assessment covers the use of "Off-Road" vehicles or 4x4's. These are normal road going cars and commercial vehicles with four wheel drive, higher ground clearance and other added traction aids to enable the vehicle to be driven effectively on rugged terrain and where traction may be lost. The assessment will be taken place off the public highway on a pre-determined course that presents the candidate with typical obstacles encountered when driving off road.

# **Learning Outcomes**

The candidate will be able to:

- State legal and safety requirements relating to the use of off road vehicles
- Carry out appropriate pre-start checks on the vehicle
- Take appropriate action arising from checks
- Explain additional considerations that need to be made when towing a trailer
- Prepare for work
- · Select and wear appropriate PPE as required
- Start the vehicle and manoeuvre it safely on rough terrain including slopes.
- · Attach a trailer to the vehicle
- Manoeuvre vehicle on a variety of terrain whilst towing, including reversing around a corner
- Operate a vehicle mounted winch to remove an obstacle and self rescue a "bogged" vehicle
- State the required underpinning knowledge that supports the operations

# **Guidance Notes for Candidates and Assessors**

The assessment is divided into two compulsory units and two optional units:

Unit 1 Pre-Use Safety – Off Road Vehicles (Compulsory)
Unit 2 Drive Vehicle in Off Road Conditions (Compulsory)
Unit 3 Trailers in the Workplace (Optional)
Unit 4 Use of Vehicle Winches (Optional)

The Qualification will be endorsed either:

A) "Including Trailers" (Candidates must achieve all assessment activities in Units 1, 2 and 3)

#### And / Or

B) "Including Winching" (Candidates must achieve all assessment activities in Units 1, 2, and 4)

# Site Requirements

The assessment must take place on an off road driving track/course that has been approved by NPTC or the assessor. The track must present obstacles that whilst requiring off road driving knowledge to negotiate, are comfortably within the capabilities of the vehicle being used for the assessment. To complete all assessment activities the course must include a slope for the vehicle to drive up and down, which is a minimum of five vehicle lengths and of sufficient gradient to be able to effectively simulate the vehicle failing a climb. There should also be a suitable run-off area in case of failed recovery. The track must also have a minimum of three of the following:

Deep soft sand; slippery surface; deep water; a slope to drive <u>across</u>; ridges; ditches/v' gully. The definition of a suitable ditch or gully is one that the vehicle would have to enter diagonally (one wheel at a time) in order to across it.

# **Candidate Pre-requisites**

Candidates coming forward for this assessment must hold a valid UK driving licence. This must be shown to the assessor.

# Safe Practice:

Appropriate Personal Protective Equipment (PPE) must be worn when required.

The vehicle and any other equipment used must be operated in such a way that the Candidate, Assessor, other persons or equipment are not endangered.

Failure to operate safely and comply with these requirements will result in the Candidate not meeting the required standard.

# Validation of Equipment:

A Manufacturer's instruction book or other drivers' manual should be available.

All equipment being used for this assessment must comply with the relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) & LOLER (1998).

Vehicles must comply with Department of Transport and Road Traffic Acts where relevant.

Any appropriate Four Wheel Drive Motor Vehicle (e.g. Land Rover/Jeep etc.) with accompanying trailer (appropriate to the work situation of the candidate) and fitted winch (if required) complying with legal requirements is acceptable for the assessment, provided it is suitably equipped for **all** assessment activities to be carried out.

The assessor must be satisfied that the vehicle is in a road worthy condition and legal to use. This will normally require evidence of MOT and insurance certificates (either the original or confirmation from the employer/vehicle owner). However, in situations where the vehicle is not intended for use on the public highway or other exemptions apply, the assessor will use their discretion as to the suitability of the vehicle.

Additional Information: May be sought from the relevant manufacturers/drivers manuals or any other appropriate training or safety publication.

Unit	1 Pre Start Safety – Off Road Vehicles	
	ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1.	Demonstrate knowledge of legal and safety requirements relating to the use of off road vehicles in respect of:  Risk Assessment	Risk Assessment must be specific to:  - Site - Task - Machine Risk Assessment must contain: - Identified hazards - Evaluated risk - Control measures to be implemented - Emergency procedures - Risk Assessment must be communicated to operator
	The use of the vehicle on a public highway or other areas to which the public has access	The vehicle must: Be in a road worthy condition (MOT certificate where appropriate) Have a current road fund licence (vehicle excise duty) Have a minimum of third party insurance cover (to conform to Road Traffic Act requirements) Be driven by someone who holds a suitable, valid drivers licence Warning signs should be erected if appropriate
	Safety of vehicle load off-road	Observe vehicle loading limits     Ensure items are secured and not liable to fall or hit the driver whilst moving     Seek to maintain low centre of gravity with heavy loads
	Environmental considerations	<ul> <li>Follow Country Codes</li> <li>Observe vehicle restrictions on rights of way and owner permission on private land</li> <li>Awareness of possible site restrictions due to SSSI's, archaeological sites etc.</li> <li>Avoid wheel spin and other damage to the ground</li> <li>Avoid fuel/oil leaks into water courses (COSHH)</li> <li>Appropriate safe site for washing down vehicle</li> </ul>
2.	Carry out daily pre-use checks and maintenance to the vehicle	Check vehicle and carry out pre-start maintenance in accordance with manufacturer's handbook  Doserve relevant safety and cleanliness precautions  Check to ensure safety of operator and vehicle:  Wheel nuts secure  Tyres (measure pressure plus visual check of tread and walls for condition)  Stop control  Correct function of all lights and direction indicators  Function of seatbelts  Ensure:  Fuel level is adequate  Oil levels are correct  Coolant level is correct  Frequency of checks undertaken  Report findings as appropriate  Act on findings where appropriate
	Demonstrate knowledge of the importance of correct fluid levels	If the vehicle is likely to be operating on steep slopes, the fluid could be drained to one end of the engine and thereby starve other areas
3.	Identify and state the function of the vehicle controls and instruments	All controls identified and function explained in accordance with the manufacturer's handbook/operators manual.     Function and significance of the information displayed on all instruments and warning lights identified by the manufacturers manual/operators handbook     Appropriate time to use traction aids fitted and dangers of incorrect use
4.	Carry out final safety checks to be made before starting the vehicle	Check controls to ensure it is safe to start (according to manufacturers manual)     Check feet and pedals are free from mud
	Start engine	<ul> <li>Engine started using appropriate technique for conditions</li> <li>Cold and warm start procedure according to manufacturers handbook /operators manual</li> </ul>

	ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
5.	Check that brakes operate	Drive vehicle short distance and stop to ensure brakes operate effectively     Check parking brake and stop engine
	Demonstrate knowledge of parking on slopes	- Park across the slope - Turn wheels up hill - Apply hand brake - Leave vehicle in gear - Chock wheels
6.	Demonstrate knowledge of safe wheel changing procedures	- Chocking - Jacking points - Soft surfaces - Level ground - Hand brake - In gear - Appropriate type of jack

	ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1.	Check site to be driven and assess the risks that are:	- Identify hazards
	- Site specific	- Select suitable control measures
	- Vehicle specific	- Identify instructions and route plan correctly (as appropriate)
	- Weather specific	- State possible risks when driving the vehicle off road
	- Environmental	·
· ·	Demonstrate knowledge of driving up and down slopes:	
	Demonstrate knowledge of driving up and down diopool.	- Gradient
	Selecting route	- Surface/vegetation
		- Obstructions
		- Weather conditions
	Driving technique	Highest gear possible without stalling for ascending     Lowest gear possible when descending
	B	- Suitable use of brakes
	Recovery Techniques:	- Avoid wheel spin when ascending
	Down a slope	- Accelerate to avoid sliding
		- "Cadence braking"
	Up a slope	- Apply brakes/stall vehicle
		- Select reverse gear
		- Release clutch
		- Check position of front wheels
		- Start engine in gear
		- Check behind
		- Descend slope with feet off pedals
		- If lack of traction select reverse without stopping
3.	Drive vehicle versed a decimanted correct as critical by the	Access conditions and cofeet route
	Drive vehicle round a designated course as outlined by the	- Assess conditions and safest route
	assessor	- Select gear, 4 wheel drive, and/or differential lock as appropriate
		- Follow correct route (as identified)
		- Demonstrate safe control of the vehicle:
		Up and down a slope
		Across a slope
		Across other obstacles as required by assessor (outlined in
		- Demonstrate procedures to follow when:
		Grip is lost
		Vehicle stalls
		- Demonstrate a failed hill climb recovery
		·
	Describe (and demonstrate if required by the assessor) the techniques for driving across ridges or humps	Vehicle at correct angle to obstacle to ensure maximum traction     Maintain low speed to avoid excessive bounce
i.	Describe (and demonstrate if required y the assessor) the	- Cross ditch diagonally to allow one wheel at a time to enter ditch
	techniques for driving across ditches	- Maintain low speed to avoid excessive bounce
	Describe (and demonstrate if required by the assessor)	- Avoid if possible
	techniques for driving across slopes	- Use existing tracks if available
		- Avoid obstacles
		- Steer down hill if traction is lost or vehicle becomes unstable
		- Maintain low centre of gravity
	Describe (and demonstrate if required by the assessor)	- As high a gear as possible
	techniques for driving on slippery surfaces (e.g. snow, ice,	- Minimum throttle to avoid wheel spin
	wet grass, mud etc)	- Avoid sudden, harsh use of controls
		- Use of traction aids
	Describe (and demonstrate if the suite of builty and	Access don'th and had before artistic the content
	Describe (and demonstrate if required by the assessor) the techniques for driving through deep water	Assess depth and bed before entering the water     Maintain sufficient speed to create bow wave where appropriate
	the techniques for univing through deep water	
		- Use of wading plugs/"snorkels"
		Check brakes after exiting water     Do not stop engine
	E	
	Demonstrate knowledge of driving in soft, dry sand	- Lower tyre pressures
	Demonstrate knowledge of driving in soft, dry sand	- Avoid wheel spin
•	Demonstrate knowledge of driving in soft, dry sand	- Avoid wheel spin - Avoid sharp turns
-	Demonstrate knowledge of driving in soft, dry sand	- Avoid wheel spin

	ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
10.	Describe and demonstrate driving techniques for recovering a failed hill climb	Demonstrate procedures to follow when:     Grip is lost     Vehicle stalls     Demonstrate a failed hill climb recovery
11.	Demonstrate knowledge of vehicle Recovery techniques	<ul> <li>Use of vehicle winch</li> <li>High lifting jack or air bag</li> <li>Tow with another vehicle</li> <li>Place appropriate traction aid under wheel</li> <li>Rock the vehicle using forward or reverse gears</li> </ul>
12.	Prepare vehicle for return to on road driving conditions.	Return vehicle to normal drive Remove mud/debris on designated site Check tyres for damage (including inside walls) inflate to road pressure it required Check that brakes operate Clean, check and reset if necessary: windows mirrors lights registration plate
		Vehicle returned to normal drive to reduce wear and improve road handling and eliminate "transmission wind up" risk     Vehicle checked for damage that could endanger the vehicle at road speeds     Mud and debris removed to prevent soiling of roads and causing hazard to other road users     Windows/lights/mirrors cleaned to maintain visibility and safety of vehicle

Unit 3 Trailers in the Workplace (optional)	
ASSESSMENT ACTIVITY	ASSESSMENT CRITERIA
Demonstrate knowledge of legal and safety requirements relating to the use of trailers in respect of:     Risk Assessment	Risk Assessment must be specific to:  - Site  - Task  - Machine Risk Assessment must contain:  - Identified hazards  - Evaluated risk  - Control measures to be implemented  - Emergency procedures  Risk Assessment must be communicated to operator
The use of the vehicle on a public highway or other areas to which the public has access	The vehicle must:  - Be in a road worthy condition (MOT certificate where appropriate)  - Have a current road fund licence (vehicle excise duty)  - Have a minimum of third party insurance cover (to conform to Road Traffic Act requirements)  - Be driven by someone who holds a suitable valid drivers licence (including towing endorsement)  - Have a tachograph fitted if appropriate (according to gross train weight)
The use of the trailer on a public highway or other areas to which the public has access	The trailer must:  Be compatible with towing vehicle Be in a road worthy condition Have an operators handbook Be fitted with manufacturers plate Have lights Have brakes if over 750kg or double axle trailer or towing vehicle requirement
2. Check towing vehicle is safe to use	VIN plate/Operators manual referenced to check:  - Maximum Gross Train Weight  - Maximum Authorised Mass  - Vehicle payload  - Gross Vehicle Weight  - Vertical Static Load/Nose Load  - Tow bar and auxiliary lighting socket  - Tachograph if required  - Tyre pressure  - Mirrors  - Handbrake operation
3. Check trailer's suitability for road use	Manufacturers handbook/plate to check:  - Unladen weight of trailer  - Gross weight  - Axle weights  - Vertical Static Load
Confirm compatibility of trailer and towing vehicle	- Check that trailer and towing vehicle are compatible
4. Check the trailer is safe to use and appropriate for the task	Conduct visual inspection of trailer to ensure structural integrity and serviceability     Appropriate registration plate fitted     Overrun braking system if fitted     Breakaway cable     Handbrake     Stabilisers     Loading ramps     Tyre pressures/type
Confirm compatibility of vehicle and load	Lights     Suitability of trailer for load type

Unit 3 Trailers in the Workplace (continued)		
ASSESSMENT ACTIVITY	ASSESSMENT CRITERIA	
5. Hitch vehicle to a trailer and connect electrics	Reverse vehicle and line up with trailer     Connect trailer to vehicle safely and securely     Connect trailer electrical system to vehicle     Check correct function of trailer     Tail lights     Brake warning lights     Number plate lights     Indicator lights     Brakes     Attach breakaway cable/chain securely to vehicle hitch     Ensure that trailer handbrake is released and wheel chocks removed (if used)	
6. Load the trailer	- Manoeuvre to appropriate area for loading (if required) - Remove/drop tailgate and/or sides - Attach ramps if required - Stabilisers put down if required - Adopt safe manual handling techniques - Safe use of Trailer Winch where fitted - Place load in correct position: - Position between axles - Even spread of weight - Within trailers capacity/nose weight - Low centre of gravity - Replace sides/tailgate/ramps etc	
7. Secure the load	Load secured using appropriate method/equipment for load type.     Lashing points     Wheel chocks     Tarpaulin     Net     Ropes (effectively tied)     Straps     Avoid damage to load     Avoid moving load during transit	
8. Drive the vehicle and trailer around an identified route.	Ensure smooth take off     Engage correct gears and select speeds as appropriate to conditions     Ensure that care is taken at corners     Manoeuvre vehicle and trailer safely     Appropriate positioning of vehicle in road     Ensure that care is taken when braking	
Route should include:  9. Reverse round a right and left hand corner	<ul> <li>Manoeuvre vehicle and trailer safely around corners, avoiding any obstacles/kerbs</li> <li>Appropriate positioning of vehicle in road</li> <li>Ensure that care is taken when reversing with auto reverse brakes</li> </ul>	
10. Reverse in a straight line	<ul> <li>Manoeuvre vehicle and trailer safely</li> <li>Appropriate positioning of vehicle in road</li> <li>Ensure that care is taken when reversing with auto reverse brakes</li> </ul>	
11. Negotiate a chicane	<ul> <li>Engage correct gear and select speed as appropriate to conditions</li> <li>Manoeuvre vehicle and trailer safely</li> <li>Appropriate positioning of vehicle in road</li> <li>Avoidance of obstacles/kerbs</li> <li>Ensure that care is taken when braking</li> </ul>	
12. Park trailer and uncouple	<ul> <li>Engage trailer parking brake securely</li> <li>Apply stabilisers, jockey wheel, wheel chocks if appropriate</li> <li>Disconnect trailer from vehicle hitch</li> <li>Disconnect electric supply cable from vehicle socket and store correctly</li> <li>Remove safety cable/chain</li> </ul>	
Demonstrate knowledge of factors to consider for driving on different road surfaces	Reduce speed when driving on rough ground     Increased importance of low centre of gravity on slopes     increased risk of jack-knifing on wet/slippery surfaces	

	ASSESSMENT ACTIVITIES	ASSESSMENT CRITERIA
1.	Demonstrate knowledge of safety considerations when operating a vehicle mounted winch	Maximum line pull/Breaking load/winch duty cycle     Winch overload protection devices     Winch components in suitable condition     Compatibility of winch components and load     Check for underground services     Suitability of anchor points     Use of ground anchors     Winch free from obstruction     No-one must enter the triangle made by the winch cable when offset pulling     Suitable PPE required (heavy duty gloves)     The cable should not be touched or crossed when under tension     Minimum of two people present for winching
2.	Identify the components and controls of the winch	- Identify motor type (electric/hydraulic/PTO driven) - Shackles - Cable - Fairleads - Manual crank facility - Interior isolation switch - Winch operation controls - Trunk protector (if using a tree as anchor point) - Snatch/pulley block - Other accessories
3.	Prepare to use the winch to move an obstacle	Check winch is safe to use Estimate load and assess compatibility Establish effective communication/hand signals Appropriate positioning and distance of vehicle in relation to obstacle Unwind appropriate/optimum length of cable Attach to obstacle Use of snatch/pulley block Use of trunk protector if applicable Use of anchor points Secure vehicle Choice of winching method Direct pull Offset pull Compound pull One-to-one or two-to-one?
4.	Move obstacle using vehicle mounted winch	Appropriate PPE     Check for underground services     Load moved     Safety of operator     Hands kept clear of winch components when spooling     Do not touch or cross cable when in tension     Obstacle left in safe position, secured/chocked if necessary     Correct re-spooling of cable
5.	Prepare to use the winch to conduct self rescue of a "bogged" vehicle	<ul> <li>Establish effective communication/hand signals</li> <li>Find suitable anchor point</li> <li>Attach cable to anchor</li> <li>Use trunk protector if required</li> </ul>
6.	Rescue the vehicle	<ul> <li>Vehicle recovered from "bogging"</li> <li>Safety of operator observed at all times</li> <li>Hands kept clear of winch components when spooling</li> <li>Do not touch cable when in tension</li> <li>Avoidance of "snatching"</li> <li>Correct re-spooling of cable</li> </ul>