CITY & GUILDS NPTC LEVEL 2 AWARD IN FOREST MACHINE OPERATIONS – FLAIL/MULCHER QAN 600/9113/7



QUALIFICATION GUIDANCE

Independently Assessed

Essential Qualification Information

Not to be used by the Candidate during Assessment

You will require some of this information to accurately complete the Record of Assessment (ROA)

Group No	0 0 2 0	Forestry and Arboriculture Level 2
Qualification Programme No	0 0 2 0 - 3 6	Award in Forest Machine Operations - Flail/Mulcher
Unit	2 1 7	Prepare and Operate A Flail/Mulcher
Pre-Requisite Units	2 0 8	Base Machine
Guided Learning Hours (GLH)	2 1 7	GLH 35 (Credit Value 4)
Total Qualification Time (TQT)		40 Hours
Recommended Assessment Duration		1 – 2 hours per Candidate

Version and date	Change detail	Section
1.2 November 2017	Added TQT details Deleted QCF / Learning Time	Qualification at a glance, Structure
		Throughout

City and Guilds Level 2 Award in Forest Machine Operations – Flail/Mulcher Qualification Guidance

Introduction

The scheme will be administered by City & Guilds

City & Guilds will:

Publish - Scheme regulations

- Qualification guidance
- Training materials
- Trainers support materials

Approve centres to co-ordinate and administer the scheme Set standards for the training of Verifiers and Assessors Recruit, train and deploy Verifiers Issue certificates to successful Candidates

The Qualification

The qualification 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.

Total Qualification Time

Total Qualification Time (TQT) is the total amount of time, in hours, expected to be spent by a Learner to achieve a qualification. It includes both guided learning hours (which are listed separately) and hours spent in preparation, study and assessment.

Access to Assessment

Assessment centres will be responsible for arranging assessment on behalf of the Candidate.

The minimum age limit for Candidates taking Certificates of Competence is 16 years. There is no upper age limit.

The assessment consists of one compulsory unit:

Unit 217 Prepare and Operate a Flail/Mulcher

Outcome

- 1. Be able to work safely (1)
- 2. Be able to operate the Flail/Mulcher (2)
- 3. Know relevant health and safety legislation and industry good practice (3)
- 4. Know how to operate the Flail/Mulcher (4)

Candidates must successfully achieve all assessment activities in the above unit.

There are no endorsements for this Award.

Quality Assurance

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 City & Guilds 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 offertiveness.

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 a City & Guilds approved verifier.

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

After assessment has been completed the Qualification Guidance is to be forwarded to the centre and retained by the centre until after the annual centre visit has taken place by a Quality Systems Consultant (QSC). As part of the quality assurance process, a minimum of two observations are required to be undertaken for each qualification that is assessed by a Trainer/Assessor. These will be carried out by an internal Verifier appointed by the Centre. One observation will be conducted in the presence of the Quality Systems Consultant. In respect of risk management, there is an expectation that additional observations up to a maximum of four will be carried out for the inexperienced or newly qualified Trainer/Assessor or Assessors.

Performance Evaluation

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

M = Met Meets or exceeds the assessment criteria by displaying a level of practical performance and/or underpinning knowledge.

If the Criterion has been MET, a tick ☑ is to be put in the box provided in the bottom right-hand column of each section.

NM = Not Met 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. If the Criterion is NOT MET, a cross 🗵 is to be put in the box provided in the bottom right-hand column of each section.

Appeals and Equal opportunities

Centres must have their own auditable, appeals procedures. If a Candidate is not satisfied with the examination conditions or a Candidate feels the opportunity for examination is being denied, the Centre Manager should, in the first instance, address the problem. If, however the problem cannot be resolved, City & Guilds will arbitrate and an external verifier may be approached to offer independent advice. All appeals must be clearly documented by the Centre Manager and made available to the external verifier or City & Guilds if advice is required.

Should occasions arise when centres are not satisfied with any aspect of the external verification process, they should contact Verification Services at City & Guilds.

Access to the qualification is open to all, irrespective of gender, race, creed, age or special needs. The Centre Manager should ensure that no learner is subjected to unfair discrimination on any grounds in relation to access to assessment and to the fairness of the assessment. QCA requires City & Guilds to monitor centres to check whether equal opportunities policies are being adhered to.

Validation of Equipment

A Manufacturer's instruction book or operator's manual should be available for the Candidate to use during the assessment if required.

Vehicles must comply with department of Transport and road Traffic acts where relevant.

Any appropriate item of machinery complying with current legal requirements is acceptable for the assessment, provided it is suitably equipped for all assessment activities to be carried out.

Additional Information

May be sought from the relevant manufacturer's operator manuals or any other appropriate training or safety publication.

Questions should be related to the background or employment aspirations of the candidate and, where possible, product labels used should be representative of products typically used in that sector or industry.

Candidates who undertake this assessment and have met the requirements are reminded of their legal obligation to receive/undertake appropriate additional training in the use of any equipment that differs from that used during the assessment, but which they are nevertheless qualified to use.

Assessment Guidance for the Trainer/Assessor

This qualification can only be assessed by an Assessor who is suitably qualified and meets the requirements of the awarding body. The Assessor must be independent **and cannot have been involved with the training of the Candidate**. Please see City & Guilds Centre Manual for guidance.

The Candidate is to be notified of the place and time of assessment and when formal assessment commences and ceases.

Assessors are reminded that assessment is a formal process and that assessment must be carried out using this Qualification Guidance. All relevant assessment criteria must be assessed against the criterion as specified in the Qualification Guidance. Assessment will be carried out by direct observation and by oral questioning of the Candidate. Where a specific number of responses are required theses may include other suitable answers not specified if they are deemed to be correct by the Assessor. The performance of the Candidate is to be recorded on the Qualification Guidance as directed by completing the tick boxes. Space has been provided on the Qualification Guidance for the person assessing to record relevant information which can be utilised to provide feedback to the Candidate. After assessment has been completed the Qualification Guidance document is to be retained by the assessor and provided if required by a Quality Systems consultant (QSC).

Assessment Guidance for Candidate

A list of registered assessment centres is available from City & Guilds Land Based Services. (www.nptc.org.uk)

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

The Candidate must be registered through the City & Guilds approved assessment centre for this qualification prior to the assessment.

The results of the assessment will be recorded on the Record of Assessment form (ROA).

The qualification guidance contains criteria relating to:

- Observation of practical performance
- Assessment of underpinning knowledge

Safe Practice:

- 1. Assessors must hold a current 'First Aid at Work' Certificate.
- 2. It is strongly recommended that Candidates hold at least a recent, recognised 'Emergency First Aid' Training Certificate.
- 3. All forest machines used in the assessments must comply with relevant Arboriculture and Forestry Advisory Group (AFAG) Safety Guides
- 4. Candidates should be familiar with the machine that they are going to operate.
- 5. Appropriate Personal Protective Equipment (PPE) must be worn at all times.
- 6. A First Aid kit meeting current regulations, of the appropriate size for the number of persons on site, must be available.
- 7. The Assessor must ensure a Risk Assessment is carried out, and sufficient control measures implemented.
- 8. Any necessary permissions must have been granted, and notifications made as appropriate: (e.g. Forestry Commission, Forest Enterprise, Private owners etc).
- 9. All equipment being used for this assessment must comply with relevant requirements of the Provision and Use of Work Equipment Regulations (PUWER) 1998 and Lifting Operations and Lifting Equipment Regulations (LOLER) 1998.
- 10. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
- 11. Provision must be made to avoid the risk of environmental pollution and adequate control measures must be implemented. (a suitable response kit to be available on the machine)
- 12. It is the responsibility of the Assessor and the Candidate to ensure that any additional requirements and provisions are met as relevant to this qualification.
- 13. Whenever the Candidate leaves the base machine, the parking brake must be applied.
- 14. When the Base Machine is parked and left unattended, or any attachments/detachments of equipment, must carry out the safe stop procedure.
- 15. The Base Machine must be operated in such a way that the Candidate, Assessor, other persons or equipment are not endangered.
- 16. All ancillary equipment, when detached must be left in a safe and stable condition.
- 17. Candidates must comply with current regulations when working at heights regulations 2005 amended
- 18. The assessment is carried out in accordance with the safety guidelines laid down in Arboriculture and Forestry Advisory Group (AFAG) Safety Guides, Health and Safety publications and current machinery directives.
- 19. A breach of Health and Safety that puts any person at risk during the assessment process will result in the assessment being terminated and the Candidate not meeting the required standard
- 20. Initial tonnage is done on unladen weight

Validation of Equipment:

Any Base Machine complying with industry guidance and European directives is acceptable for the test, provided it is suitably equipped for **all** assessment activities to be carried out. Where a ROPs structure is fitted, an operator seat restraint is in place and functional.

Any machine that can lift or suspend the load above the operator, who isn't protected by adequate/suitable FOPS and OPS, will be required to produce a current LOLER certificate to the Assessor

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Candidate	A Name:		Date:	Start Time:	Dura	ition	1:		
Candidate	B Name:		Date:	Start Time:	Dura	ition	1:		
Candidate	C Name:		Date:	Start Time:	Dura	ition	1:		
Candidate	D Name:		Date:	Start Time:	Dura	ition	1:		
CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE		SSESSMENT ACTIVITIES		C/	AND B	IDAT C	E D
3.3 3	Outline the emergency planning and lone working procedures relevant to the working area	The Candidate to state five factors in emergence planning State two factors of lone working	include location name grid reference designated me site location na nearest acces street name/di type of access suitable helico phone number location and p accident and e works manage	eeting place ame s point strict s upter landing area of nearest doctor hone number of nearest emergency hospital er contact details	ould				
		J	effective comrfail to safe sysreporting in tin		Met X				
1.1 1	Identify the hazards and risks associated with the working area, the proposed work and the machine	The Candidate to state four hazards and four risks with the working area/work to be done	cause harm) and ri relevant to: The work area/wor Hazards power lines terrain access routes chain shot risk zones struck by timl	s ber	to d),				

other machine operators

other

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA ⁻	ΤΕ
1.1 cont		The Candidate to state four hazards and three risks for the machine	The machine Hazards				
		TISKS TOT THE HIACHINE	 struck by machine access and egress moving parts hot surfaces working at heights high pressure fluids other Risks				
			publicoperatorenvironmentother				
	Use appropriate tools,	Assessor to observe	• All tools, equipment and Personal				
1.2 1	equipment and personal protective equipment (PPE)	appropriate tools, equipment and PPE are used in accordance to industry good practice	Protective Equipment are used in line with industry good practice e.g. AFAG/HSE. During all on site operations PPE in accordance with industry good practice must be worn.				
		All applicable to the task at hand	Personal Protective Equipment identified could include:				
		at Hallu	 safety helmet (if required) hearing protection (where needed) suitable protective gloves protective boots non snag outer clothing 				
			 high visibility clothing where risk assessment identifies it hand cleaning materials first aid kit other 				
			Met ✓ Not Met X				
3.1 3	Outline key health and safety legislation and industry good practice	The Candidate to state two relevant points of each of the following:	Outline key points from the legislation listed below:				
		Health and Safety at Work Act (HSWA) (1974)	Health and Safety at Work Act (HSWA) (1974) –				
			 general duties for employers and employees maintain safe places of work 				
			maintain safe places of work other				
		Provision and Use of Work Equipment Regulations 1998	Provision and Use of Work Equipment Regulations 1998 (PUWER 98) –				
		(PŪWER 98)	record keepingoperators adequately trainedequipment fit for purpose				
			other				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C/ A	AND B	IDA [*]	TE D
	ORTERIA	Lifting Operations and	Lifting Operations and Lifting Equipment	^	В	Ü	
3.1 cont		Lifting Equipment Regulations (1998)	Regulations (1998) (LOLER)				
		(LOLER)	main requirements of the LOLER required by the machine				
			risk zones				
			safe working load				
			inspection by a competent person				
			operating controls labelled				
			• other				
		Reporting of Injuries, Diseases and Dangerous	Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)				
		Occurrences Regulations	reporting of accidents				
		1995 (RIDDOR)	reporting of dangerous occurrences				
			• other				
		Working at Heights	Working at Heights				
			adequate precautions taken for safe				
			working procedures any height constitutes working at heights				
			other				
		Control of Substances Hazardous to Health	Control of Substances Hazardous to Health (COSHH) Regulations (2002)				
		(COSHH) Regulations (2002)	correct PPE to be identified				
			correct storage and application				
			disposal other				
			• other				
		State two sources of	Industry Good Practice				
		industry good practice	Arboriculture Forestry Advisory Group				
		information	(AFAG) information				
			Health and safety in forestry				
			Forest and water guidelines Operators manual				
			Operators manual				
		State two procedures to	Line contact possible procedures				
		be followed when machine contacts power line	where possible, drive away to safe area				
		contacts power line	if safe, stay in machine and contact power				
			company/supervisor jump from machine, bunny hop as far as				
			possible				
		State four factors	Power lines				
		regarding working near	designated crossing point (goal posts)				
		power lines	 liaison with power companies 				
			site maps				
			• AFAG				
			electricity at work				
			• other				
			Met ✓ Not Met X				
3.2	Describe the types of records that may be	The Candidate to state two types of record	Records:				
J.2	required for	keeping to meet PUWER	logbook				
3	management and		service logbooktime sheet				
	legislative requirements		time sheet maintenance schedule				
			other				
			Met ✓ Not Met X				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA [*]	TE D
HOWIDER	Carry out pre and post-	Assessor to observe	Drive system	A	В	C	-
2.2	start checks to test all			_			
2	operating functions of the equipment	MACHINE SPECIFIC	operators manualPTO (power take off)				
2	the equipment		chains and sprockets				
			hydraulic coupling				
			safety decals				
			risk zones				
			• leaks				
			pipe condition				
			shear bolts				
			slip clutch				
			condition and balance of teeth				
			chain lengths				
			• guarding				
			rams and ram mountings				
			control spool valve mountings				
			control lever mode of operation clearly				
			marked				
			operator checklist completed				
			• other				
			Lubrication of attachments may include				
			all lubrication points identified				
			use of the operators manual to identify how frequently beginning about the undertaken.				
			frequently lubrication should be undertaken grease lubrication points (as required)				
			other				
	Describe have	Thursday	Met ✓ Not Met X	Ш	Ш	Ш	
3.4	Describe how environmental damage	Three causes	Environmental damage may be caused by:				
_	can be caused and		incorrect storage of fuel and oil				
3	minimised		defective machinery				
			poor work practices				
			oil and fuel spillages				
			• other				
		Three proventions					
		Three preventions	Environmental damage may be prevented by				
			following principles of industry good practice				
			good housekeeping				
			appropriately trained operators and this are profibele.				
			spill kits are available				
			• other			Ш	
			Met ✓ Not Met X				
3.5	Describe the correct methods for disposing	The Candidate to state one method	Disposal of waste from workplace activities may include:				
3	of waste		use of designated waste/recycle bins				
			waste oils placed in approved containers for			_	
			disposal other				
			• other				
			Met ✓ Not Met X				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND		ΓΕ
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
2.1 2	Select suitable flail/mulcher equipment and check security	Assessor to observe	Suitable equipment flail/mulcher suitable for the vegetation type flail/mulcher suitable for the machine				
			Security may include				
			 appropriate and safe following manufacturers instructions safe use of controls pins bolts hitch safe access and egress flail/mulcher checked for security 				
			Met ✓ Not Met X	ᆜ	Ш	Ш	닏
4.1	State safety precautions which should be put in	Four precautions	adequate warning signs				
4.1	place when working alongside public rights of way		 safe working distances possible problems are identified when working along side public rights of way 				
	of way		 the right of way is maintained ensure all footpaths are repaired and safe to be used before the signs are removed 				
			and the site is left other				
			Met ✓ Not Met X				
4.2	State factors to consider when carrying out the operation	Four factors	Factors to consider may include site planning and operational systems				
4			appropriate to site conditions desired planting position and environment				
			 poor traction caused by varying soil and surface conditions wayleaves (electricity, telephone, gas) 				
			soil types				
			PTO speed (if applicable)				
			 machine speed/gears suited to site conditions and machine capabilities other				
			Met ✓ Not Met X				
2.4	Manoeuvre the machine on site in a safe and	Assessor to observe the candidate carrying out	Start engine				
2.4	effective way	candidate carrying out correct starting techniques	isolator switch engaged				
2	,	in accordance to	parking brake applied				
		manufacturers recommendations	gears in neutral				
		recommendations	clutch pedal depressed (if applicable)				
			PTO disengaged (if applicable)				
			hydraulic services in neutral (if applicable)				
			• start				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C	AND B	IDA1	TE D
	0141121421	Assessor to observe the	Candidate to drive machine		Ť		
2.4 cont		candidate drive the machine turning left and	safe access				
		right, reverse, park, switch off and exit	start in accordance with manufacturers recommendations				
			appropriate gear selection				
			smoothness of take off				
			drive in a straight line				
		Assessor to observe and	left and right turn				
		agree	reverse (if applicable)				
			appropriate speed for conditions				
			appropriate use of brakes				
			safe position on site chosen				
			controls and attachments in neutral and lowered to the ground				
			parking brake applied and effective				
			safe egress				
			9				
			Parking machine may include				
			safe position on site chosen				
			controls and attachments in neutral and lowered to the ground				
			parking brake applied (if applicable)				
			engine off				
			key removed				
			correct dismounting				
			access and egress				
			Met ✓ Not Met X				
	Carry out the operation	Assessor to observe	inspect site for hazards: obstacles, power				
2.3	in accordance with the job specification	An area to be	cables, drainage outfalls, soft banks etc efficient smooth operation of machine				
2		flailed/mulched is agreed	safe procedures are observed for moving				
		between assessor and candidate	the machine during work				
		Sarraidato	standard of work achieved is acceptable				
		Vegetation may include	Met ✓ Not Met X				
		removal of trees from above or at ground level	Site planning and operational systems				
	State factors to consider	State two advantages of	appropriate to site conditions and vegetation Machine is cleaned to:			-	
4.3	when cleaning,	regularly cleaning the					
	servicing and storing the flail/mulcher	machine	prevent corrosion				
4	the liall/mulcher		facilitate maintenance & adjustments prevent hazardous operating conditions				
			prevent hazardous operating conditions (e.g. fire)				
			prevent soiling of roads				
			prevention of cross contamination / bio				
			security				
		State three factors to consider for cleaning the	identify PPE to be usedremove any unwanted residues safely				
		machine	using appropriate method:				
			blower compressed air				
			compressed air				
			water brush				
			brush dispose of waste material according to				
			dispose of waste material according to company policy and legislation				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND	IDAT	ГΕ
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
4.3 cont		State two reasons for inspecting the machine after use	machine inspected to establish any wear, damaged and/or missing components through use ensures any defects can be rectified before it is next used other operators / supervisor etc. can be informed through a reporting procedure that defects are present				
			Met ✓ Not Met X				
1.3 1	Work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice	Assessor to observe	All activities must be completed in a way which protects the operator and those around them. Met ✓ Not Met X				
1.4	Carry out work to minimise environmental damage	Assessor to observe	It is ensured that any possible environmental damage is minimised at all times during on site operations				
1			Met ✓ Not Met X				

Summary of Assessment (The A	lssessor is	to con	nnlete ti	he fo	llowina as	appropriate)
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Candidate A	Candidate has met all of the assessment criteria	Tick	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick ✓
	Signed: [ate:		
Candidate B	Candidate has met all of the assessment criteria	Tick	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick
	Signed:	ate:		
Candidate C	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (state reason(s))	Tick ✓
	Signed:	ate:		1
Candidate D	Candidate has met all of the assessment criteria	Tick ✓	The Candidate has not met all of the assessment criteria; (state reason (s))	Tick ✓
	Candidate has met all of the assessment criteria Signed:	✓	The Candidate has not met all of the assessment criteria; (state reason(s))	✓
Candidate		Date:	reason(s))	✓
Candidate	Signed: r use by Internal Verifier ONLY if the assessment process was internal Verifier to complete ONE of the boxes below)	✓ □ Date:	reason(s))	✓
For (Internal Candidate	Signed: Tuse by Internal Verifier ONLY if the assessment process was internal Verifier to complete ONE of the boxes below) Disserved an assessment process taking place and I am satisfied the	Date:	verified ssessment was conducted in line with the qualification requirements	Tick