CITY & GUILDS NPTC LEVEL 2 AWARD IN FOREST MACHINE OPERATIONS – FORWARDER QAN 600/9103/4



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 - 1 6	Award in Forest Machine Operations - Forwarder
Unit(s)	2 0 9	Prepare, drive and manoeuvre forwarder
Guided Learning Hours (GLH)	2 0 9	GLH 38 (Credit Value 5)
Total Qualification Time (TQT)		50 Hours
Recommended Assessment Duration		1.5 – 3 hours per Candidate
Pre-Requisite Units	2 0 8	Base Machine

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

City and Guilds NPTC Level 2 Award in Forest Machine Operations - Forwarder Qualification guidance

Introduction

The scheme will be administered by City & Guilds

City & Guilds will:

Publish

- Scheme regulations
- Qualification guidance
- Training material
- Trainers support 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 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 209 Prepare, Drive and Manoeuvre Forwarder

Outcome

- 1. Be able to work safely (1)
- 2. Be able to prepare, drive and manoeuvre forwarder (2)
- 3. Be able to operate grapple (3)
- 4. Know how to prepare forwarder (4)
- 5. Know how to drive and manoeuvre forwarder (5)
- 6. Know relevant health and safety legislation and industry good practice (6)

Candidates must successfully achieve all assessment activities in Mandatory unit 209.

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 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 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).

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. Subject to H&S restrictions 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 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 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 NPTC. (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 measured on unladen vehicle 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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City & Guilds is a registered charity established to promote education and training

Candidate A	Name:	Date:	Start Time:	Duration:
Candidate B	Name:	Date:	Start Time:	Duration:
Candidate C	Name:	Date:	Start Time:	Duration:
Candidate D	Name:	Date:	Start Time:	Duration:

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT			IDA.	_
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
1.1	Identify the hazards and risks associated		Identify hazards (anything with the potential to cause harm) and risks (who might be harmed),				
	with the working area		relevant to:				
1	and the proposed work						
_		The Candidate to state	The work area/work to be done				
		four hazards and three	.				
		risks with the working area/work to be done	Hazards				
		area/work to be done	power lines				
			terrain				
			access routes				
			chain shot				
			risk zones				
			struck by timber				
			other				
			• Other				
			Risks				
			operator				
			others on site				
			• public				
			other machine operators				
			other				
			other				
		The Candidate to state	The machine				
		four hazards and three					
		risks for the machine	Hazards				
			struck by machine				
			access and egress				
			moving parts				
			hot surfaces				
			working at heights				
			high pressure fluids				
			other				
			• Ottlei				
			Risks				
			• public				
			operator				
			environment				
			• other				
			Met√ Not Met X				
		1	Mety Not Met X	1		_	

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT			IDA	
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
1.2 1	Use appropriate tools, equipment and Personal Protective Equipment	Assessor to observe appropriate tools, equipment and PPE are used in accordance to industry good practice	 All tools, equipment and Personal 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:				
			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	Ш	Ш	Ш	
6.1	Outline current health and safety legislation, codes of practice and	The Candidate to state two relevant points of each of the following:	Outline key points from the legislation listed below:				
6	any additional	•a•g.					
	requirements	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				
			• other				
		Provision and Use of	Provision and Use of Work Equipment				
		Work Equipment	Regulations 1998 (PUWER 98) –				
		Regulations 1998 (PUWER 98)	record keeping operators adequately trained				
		(1 3 1 2 1 (3 3)	equipment fit for purpose				
			other				
			outer				
		Lifting Operations and	Lifting Operations and Lifting Equipment				
		Regulations (1998)	Regulations (1998) (LOLER) main requirements of the LOLER required				
		(LOLER)	by the machine				
			risk zones				
			safe working load				
			inspection by a competent person				
			operating controls labelled				
			• other				
		Reporting of Injuries,	Reporting of Injuries, Diseases and Dangerous				
		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 proceduresany height constitutes working at heights				
			• other				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND	IDA	ΓΕ
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
6.1 cont		Control of Substances Hazardous to Health (COSHH) Regulations	Control of Substances Hazardous to Health (COSHH) Regulations (2002) correct PPE to be identified				
		(2002)	correct storage and application				
		(====,	disposal				
			other				
			ourci				
		State two sources of industry good practice information	Industry Good Practice				
		State two factors of lone working	Lone working effective communication system fail to safe system reporting in times				
		State two procedures to be followed when machine contacts power line	Line contact possible procedures: where possible, drive away to safe area if safe, stay in machine and contact power				
		·	company/supervisor				
			jump from machine, bunny hop as far as possible				
		State four factors regarding working near power lines	Power lines designated crossing point (goal posts) liaison with power companies				
			site maps				
			AFAG				
			electricity at work				
			• other				
			Met ✓ Not Met X				
6.3	Describe the types of records that may be	The Candidate to state two types of record	Records:				
	required for	keeping to meet PUWER	logbook				
6	management and legislative		service logbook				
	requirements		time sheet				
	45 556		maintenance schedule				
			• other				
			Met ✓ Not Met X				
6.2	State why it is important to maintain good	State One	Importance of communication could include:				
	communication and		health and safety				
6	team work within the		site planning/co-ordination				
	working environment		• other				
			Met ✓ Not Met X				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA1	TE
2.1	Carry out pre and post- start checks to test all	Assessor to observe candidate carrying out the	Pre and post start checks on machine according to the operators handbook and to include:				
2	operating functions of the equipment	pre and post start checks of the machine	machine on level ground				
_		Candidate to comment on	ensure machine services in neutral and lowered where applicable				
		machines serviceability	engine stopped and key removed				
		Assessor is to use their own discretion as to	check hydraulic oilimportance of cleanliness				
		whether a seat belt/lap	seat, steering mechanism				
		restraint is to be worn during assessment	operator seat restraint is functional (where applicable)				
			check operator protection systems				
			check relevant access and egress points				
			check pin bush wear and security shock for an elegifications.				
			check for cracks/fatigue check for bydraulia loaks				
			check for hydraulic leakssecurity of components				
			check safety decals				
			LOLER certificate (if required)				
			hydraulic radiator				
			grease where and when appropriate				
		Check security of loader to base	bolts cracks leaks				
		Check security of loader attachment	bolts cracks				
		Check attachment	security				
			condition				
			hydraulic leaks				
			pin and bushes				
			pipe work				
			guarding				
		Maintenance of forwarder	Chassis/ Frame				
			cracks pin security				
			bushes				
			cylinders				
		Assessor to observe	attachment				
		candidate adhering to	loose or broken bolts				
		environmental best practice and COSHH	cables and connections				
		regulations	guarding				
			Hydraulic hoses				
			leaks cracks				
			• cuts				
			abrasions				
			security				
			guarding				
			Environmental considerations				
			disposal storage of oils on site				
			storage of oils on site spill kit mats used				
			Spill Nit Mate used				
			Met ✓ Not Met X	Ш	Ш	\sqcup	Ш

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA [*]	TE D
	State the safety	All required	Level ground	,,		_	
4.1	requirements, routine and functional checks required for machine and operator protection		all fluid levels can be accurately checked other				
			Machine Services				
			security				
			unauthorised third party operation				
			• other				
			Cleanliness				
			personal contamination				
			system contamination				
			• other				
			Adjustment				
			ergonomics				
			visibilityother				
			Restraint systems				
			personal safetyHSE requirement				
			other				
			Operator protection systems				
			roll over protective structure (ROPS)				
			falling object protective structure FOPS)operator protection structure (OPS)				
			other				
			Access and Egress				
			operator safety				
			PUWER other				
		Environmental considerations	waste bagged and labelled licensed disposal				
			recycle				
			• other				
			Met ✓ Not Met X				
5.2	State the implications of terrain, ground	Describe factors to consider when route	Route planning may be achieved by assessing:				
	conditions, season,	planning	Terrain				
5	weather and tree condition on planning access routes and	One example from each	roughness, slope other				
	driving the machine		Ground conditions				
			load to match ground conditions (ground				
			bearing capacity)				
			• other				
			Seasonal				
			winter, summer				
			• other				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA1	TE D
			Tree species				
5.2 cont			transport of brash from worked racks				
			tree species relevant to brash availability				
			• other				
			Met ✓ Not Met X	П	П		
	Describe safe driving		Importance of loader position and machine				
5.1	techniques that should be used on site		stability				
5	be used on site	Three of each	Loader position				
			maintain the centre of gravity				
			over reaching				
			over loadingslope/steep ground				
			slope/steep ground loader parking position				
			loader parking position				
			Machine stability				
			use of legs (if fitted) oscillation lock				
			ballast of tyres/traction aids				
			ground condition				
		Four methods	Safe driving techniques may be applied by correct gear selection and engine speed				
			 route selection and planning 				
			patching and brash matt repair				
			appropriate use of difflock (if applicable)				
			appropriate use of traction aids (if				
			applicable)appropriate use of steering drawbar (if				
			applicable)				
			avoid standing crop				
			avoid overloadingload to match ground conditions				
			other				
			Met ✓ Not Met X				
	Discuss the capabilities	Four limitations	Machine loader limitations may be assessed by				
5.4	and limitations of the loader when loading		loader manufacturers guidance				
5	and unloading		span diagram on loader				
			lifting at short distances				
			machine stability				
			over extending				
			traction aids/extra weightother				
		The Candidate to explain	The function and setting of the following controls:				
		the controls of the loader					
			engine speed control stop control				
			check function of emergency stop				
			PTO lever engagement and speed range				
			selector (if applicable)				
			oscillating lock and remote braking device (if applicable)				
			hydraulic control decals				
			height restriction devices (if applicable)				
			load monitor (if applicable)				
			other controls provided external services				
			lights, horn and any safety warning device				
]	(where applicable)				

CRITERIA NUMBER	ASSESSMENT CRITERIA	ASSESSOR GUIDANCE	ASSESSMENT ACTIVITIES	C.	AND B	IDA1 C	ΓE
E 4 cont		State the instruments	oil pressure gauge and oil filter warning				
5.4 cont		inside the cab, what are they and how should they be interpreted	lights other warning lights (as applicable)				
		What action should be taken in the event of a warning light coming on	refer to operators manual				
		What action should be taken to maintain/check	fire fighting system(s) tested (if fitted)fire extinguishers maintained, checked and				
		the fire fighting system is operational	 in date access and egress points in the event of an emergency 				
			Met ✓ Not Met X			$\prod_{i=1}^{n}$	
	Describe how to		Explain grading process				
5.6 5	segregate and grade produce to meet required specification		 products stacked appropriate to log specification planning of loading in relation to stacks at road side 				
			• other				
			Met ✓ Not Met X				
2.2	Drive the machine on site in a safe and effective way	Assessor to observe the candidate drive the machine turning left and	Candidate to drive or manoeuvre machine safe access start in accordance with manufacturers				
&	Manoeuvre the machine	right, reverse, park, switch off and exit	recommendations appropriate gear selection				
2.3	on site in a safe and		smoothness of take off drive in a straight line				
2	effective way		left and right turn				
			reverse				
			appropriate speed for conditionsappropriate use of brakes				
			parking brake applied and effective				
			 stop in accordance with manufacturers recommendations safe egress 				
			Met ✓ Not Met X				
0.4	Use machine to		All activities must be completed in a way which				
3.1 3	load/feed wood products	Two loads extracted to landing one of sawlogs	protects the operator and those around them. Operator to load/unload both shortwood and logs:				
		and one load of shortwood	safely and efficiently grapple completely encloses product/s				
			grapple parked when moving				
			load and unload when stationaryload to capacity				
			headboard adjusted to load height				
			load constructed to maintain stability and visibility				_
			timber aligned using headboard and ground or banging plate				
			Met ✓ Not Met X				
3.2	Grade products to facilitate subsequent handling, processing or	Assessor to observe	Operator to grade both shortwood and logs to site specification				
3	uplift for onward dispatch		Met ✓ Not Met X				

CRITERIA	ASSESSMENT	ASSESSOR	ASSESSMENT	C	AND	IDAT	ſΕ
NUMBER	CRITERIA	GUIDANCE	ACTIVITIES	Α	В	С	D
3.3	Separate products for subsequent handling, processing or uplift for	Assessor to observe	Operator to separate both shortwood and logs to site specification				
3	onward dispatch		Met ✓ Not Met X				
3.4	Stack produce flush to a safe and stable height and condition	Assessor to observe	Candidate to use recognise industry guide lines to complete stacking operation				
3			correct approach to landingsuitability of landing use bearers				
			correct distance and position from stack				
			stack constructed in a progressive self- supporting manner				
			efficient use of loader				
			stack height meets with industry guidance and follows site risk assessment				
	Comments	Two methods	Met ✓ Not Met X				
5.5	Summarise safe stacking heights,	i wo methods	Safe stacking may be implemented by				
	stability of stacks and		warning signs				
5	signing requirements		risk assessment				
			barrier tape				
			industry guidance				
			other				
			Met ✓ Not Met X				
5.3	Outline the implications of extracting long logs,	State two	Outline the implication of pole length extraction				
5	poles or tree length timber to forwarder		compatibility of machine to products lengths consider attachments				
	extraction		damage to centre joints				
			manoeuvrability				
			• other				
			Met ✓ Not Met X				
1.3	Carry out work specification in accordance with	Assessor to observe	All activities must be completed in a way which protects the operator and those around them.				
1	relevant legislation, industry good practice and maintains health and safety		Met ✓ Not Met X				
1.4	Carry out work to minimises 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 Assessor is to complete th	e following 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: Date:			
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: Date:			
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: Date:			
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 ✓
	Signed: Date:			
For use by Internal Verifier ONLY if the assessment process was internally verified (Internal Verifier to complete ONE of the boxes below)				
I ob	I observed an assessment process taking place and I am satisfied that the assessment was conducted in line with the qualification requirements and that the judgement of the Assessor was appropriate.			
I ob	I observed an assessment process taking place. The following were noted as areas of concern.			
Signed: Date:				