



NPTC

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LEVEL 2

CERTIFICATE OF COMPETENCE

IN

FOREST MACHINE OPERATIONS

ASSESSMENT SCHEDULE

FMO3 FORWARDER HANDLING

Purpose Built		Agri Based		Miscellaneous	
FMO3.1	Cab	FMO3.4	Cab	FMO3.7	Front End
FMO3.2	Bunk	FMO3.5	Bunk	FMO3.8	Other
FMO3.3	Other	FMO3.6	Other		

NPTC

LEVEL 2 CERTIFICATE OF COMPETENCE IN FOREST MACHINE OPERATIONS

FMO3 FORWARDER HANDLING

Introduction

The scheme is 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/ID Card

Certificates of Competence/ID Cards 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 to an application for an assessment but potential Candidates are strongly advised to ensure that they are up to the standard 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 local Assessment 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 prior to assessment.

The schedule of assessment contains the criteria relating to:

- Observation of practical performance
- Assessment of knowledge and understanding

When all the criteria within the Units for which assessment has been sought have been completed the result(s) will be recorded on the Candidate Assessment Report Form(s).

Performance Evaluation

At the Assessment the Assessor will evaluate each activity against the following criteria:

- 4 = Exceeds the requirements of the assessment criteria for both the practical performance and the underpinning knowledge, with no 'critical' faults. Delivering a safe, polished, efficient, unsupervised performance of the practical skill.
- 3 = Satisfies the requirements of the assessment criteria for both the practical performance and the underpinning knowledge, with no 'critical' faults. Candidate has sufficient fluency to perform the task safely, unaided and unsupervised.
- 2 = Does not fully satisfy the requirements of the assessment criteria. Candidate required some support or excessive time to perform the task satisfactorily and/or potentially causes a "critical fault". Weaknesses in performance exceed strengths.
- 1 = Does not satisfy the requirements of the assessment criteria. Candidate is unable to demonstrate sufficient skill or underpinning knowledge and weaknesses in performance substantially exceed strengths and/or causes a "critical fault".

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 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 NPTC.

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

FMO3 FORWARDER HANDLING

Purpose Built		Agri Based		Miscellaneous	
FMO3.1	Cab	FMO3.4	Cab	FMO3.7	Front End
FMO3.2	Bunk	FMO3.5	Bunk	FMO3.8	Other
FMO3.3	Other	FMO3.6	Other		

Learning outcomes

Candidates will:

1. Carry out pre-start checks and routine maintenance
2. Carry out a Risk Assessment and site appraisal
3. Operate a forwarder in a safe and effective manner
4. Drive the machine on a variety of terrains as available on site
5. Demonstrate knowledge of traction aids (chains and band tracks)

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 501 and 503
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 candidate must be equipped with a personal first aid kit.
8. The Assessor must ensure a Risk Assessment has been carried out, and sufficient control measures implemented. In particular, the location of the site and weather conditions should be assessed, details of access, etc, which may be required by emergency services must be noted, as well as the nearest Accident and Emergency Hospital Unit. The means of contacting the emergency services must be established. Manual handling techniques must comply with current legislation.
9. Any necessary permissions must have been granted, and notifications made as appropriate: (e.g. Forestry Commission, Forest Enterprise, Private owners etc).
10. 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.
11. Information may be sought from the relevant operator manuals or any other appropriate training or safety publication.
12. The current Regulations for transport, handling and storage of fuel and oils must be complied with.
13. Provision must be made to avoid the risk of environmental pollution.
14. 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.
15. Whenever the Candidate leaves the operators cab, the processor must be safely parked and the parking brake must be applied.
16. When the machine is parked and left unattended, it must be immobilised and all doors secured.
17. The machine must be operated in such a way that the Candidate, Assessor, other persons or equipment are not endangered.
18. All ancillary equipment, when detached must be safely parked.
19. Candidates must comply with current regulations when working at heights of greater than 2 metres.
20. 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 legal requirements.

Machines:

Purpose Built	Agri tractor-bases forwarders	Miscellaneous
3.1 Cab mounted crane	3.4 Cab mounted crane	3.7 Front End
3.2 Bunk mounted crane	3.5 Bunk mounted crane	3.8 Other
3.3 Other	3.6 Other	

The Machine used must have the bunks adjusted to suit the produce being handled.

Additional sources of information:

Sweep diagram for the loader being used

Forestry Commission publications on Terrain Classification

The work site should comprise an area of felled timber for extraction/stacking/handling exercises with well-presented produce of small round wood and/or logs.

Part I – Preparation

	Assessment Activity	Assessment Criteria:
1.	<p>Pre-start checks and routine maintenance</p> <p>Demonstrate knowledge of legal requirements and safety regulations</p>	<ul style="list-style-type: none"> - Awareness of any safety implications imposed by risk assessment on the machine and the operation - Awareness of FASTCo guides and the relevance of their contents to the machine and the operation - Awareness of statutory regulations when transporting on a public highway - Lifting operation and lifting equipment regulations (LOLER) - Provisional use of work equipment regulations (PUWER)
2.	<p>Answer questions on safety and on safety regulations which concern both the driver and affect any person in the vicinity of the machine</p>	<ul style="list-style-type: none"> - All risk zones clearly and prominently marked externally and internally - Maximum machine height - Warning/prohibition signs erected - Barrier tape put up - Extra Manning considered - Steel Towers - 15m - Wooden poles - 9m
3.	<p>Demonstrate knowledge of requirements to safeguard the environment</p>	<ul style="list-style-type: none"> - Awareness of statutory requirements under control of pollution: - Fuel spillage/storage - Erosion - Oil/leakages - Time of year - Water contamination
4.	<p>Carry out daily maintenance and pre-start checks</p> <p>Grease at least three points</p>	<ul style="list-style-type: none"> - Check system for leaks - Check trailer and crane for damage or fatigue - Check for loose nuts and bolts - Check tyres for correct pressure for site check for tyre damage - Check correct operation of controls - Check pins for wear - Grease all points as outlined in operators' manual - Dangers of over greasing - Clean any contaminates off pedals, steps etc. Before proceeding
5.	<p>Carry out site assessment</p>	<p>Terrain and machine limitations:</p> <ul style="list-style-type: none"> - Soil type - Obstacles - Slopes - - Application of traction aids - Weather conditions
6.	<p>Demonstrate knowledge of operation and site planning on range of site types</p>	<p>Assessment must be carried out on at least one of the following site types:</p> <ul style="list-style-type: none"> - Clearfelling - Thinning - Windblow <p>- Knowledge must be demonstrated of operation on site types not observed</p>

Assessment Activity	Assessment Criteria:
7. Demonstrate knowledge of planning a work site	<ul style="list-style-type: none"> - Access and egress points - Watercourse crossing points (if applicable) - Stacking areas - Fuel storage point - Plan work on severe areas (steep/wet, etc.) - Up and down hill - Across slopes - Crossing obstacles - On deep peat sites - Vertical steps - Environmental considerations - Overhead hazards

Part II – Operation

<i>An appropriate quantity and range of product types must be available. Sufficient loading, extraction and unloading to stack is to be assessed covering loading to capacity of machine, relating load to site conditions; segregation and stacking of more than one product type.</i>	
8. Demonstrate knowledge of safe driving	<ul style="list-style-type: none"> - Mount machine in a safe manner - Correct starting procedure - Controls in transport position
9. Demonstrate knowledge of traction aids	
10. Manoeuvre machine to stacked produce Position to stack correctly	<ul style="list-style-type: none"> - Helmet secure - Safe speed - Forward manoeuvre - Reverse manoeuvre - Left turn - Right turn - Environmental considerations - Parking brake re applied
11. Load produce on the forwarder Demonstrate knowledge of the capacity of the loader	<ul style="list-style-type: none"> - The loader should be used in a smooth and decisive manner. - Correct position of machine - Correct grappling techniques - Park loader before moving machine - Machine stability - Reduced load when ground conditions are poor - Safe operator position - Reasons for stacking produce parallel to the rack or at 90° to the rack - Ability to use maximum lifting effort

Assessment Activity	Assessment Criteria:
11. (continued)	
Lifting techniques	<ul style="list-style-type: none"> - Grapples log cleanly at point of balance - Uses main boom, outer boom and boom extension (where fitted) to draw logs closer to trailer before loading - Alternate butts and tips to keep load level
Demonstrate knowledge of procedure for lifting heavy or awkward logs	<ul style="list-style-type: none"> - Uses counterpoise method to facilitate the loading of awkward, heavy or extra long sawlogs - The trailer/machine loaded in a sequential manner
Load structure and weight distribution	<ul style="list-style-type: none"> - Load and loader must be stable, safe and secure when moving - Produce on the loaded machine adjusted to allow for terrain and site conditions - Even distribution
Travelling	<ul style="list-style-type: none"> - Profile of load - Avoidance of over loading bunk - Loader placed in travel position

Part III – Completion

Assessment Activity	Assessment Criteria as in previous Assessment Activity and in addition:
12. Unload machine and form a roadside stack or unload onto semi trailer	<ul style="list-style-type: none"> - Ensure a solid secure base for stack - Correct stack profile when unloading - Unload evenly (machine stability) - Correct stack height - Park loader correctly - Grading specifications