



National Unit specification: general information

Unit title: Tractor Driving (SCQF level 4)

Unit code: H28B 10

Superclass: SK

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Summary

This Unit develops candidates' knowledge and practical skills in the preparation and operation of a tractor. Candidates will learn about key components on a tractor, learn how to carry out basic pre-start checks before operation, then drive and operate the tractor safely and responsibly, without attachments.

This is an optional Unit within the National Certificate in Agriculture at SCQF level 6 but may also be taken as a free-standing Unit.

This Unit is suitable for candidates who have no previous tractor driving experience.

Outcomes

- 1 Identify the main controls and instrumentation of a tractor and their functions.
- 2 Carry out pre-start tractor checks.
- 3 Drive and operate a tractor safely, under supervision.

Recommended entry

Entry is at the discretion of the centre.

Credit points and level

0.5 National Unit credits at SCQF level 4: (3 SCQF credit points at SCQF level 4*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

General information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

There is no automatic certification of Core Skills or Core Skill component in this Unit.

National Unit specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Identify the main controls and instrumentation of a tractor and their functions.

Performance Criteria

- (a) Identify the main controls involved in driving a tractor.
- (b) State the function of the main controls and instrumentation of a tractor.

Outcome 2

Carry out pre-start tractor checks.

Performance Criteria

- (a) Assess the tractor's safety and readiness for use.
- (b) Carry out a check for possible necessary adjustments.
- (c) Take account of personal health and safety in all pre-start checks.

Outcome 3

Drive and operate a tractor safely, under supervision.

Performance Criteria

- (a) Drive a tractor safely and responsibly.
- (b) Complete tractor driving manoeuvring tasks safely.

National Unit specification: statement of standards (cont'd)

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Evidence Requirements for this Unit

Performance and written and/or oral evidence is required to demonstrate that the candidates have achieved all of the Outcomes and Performance Criteria. Evidence will be obtained under open-book, supervised conditions at appropriate points throughout the Unit and can be generated holistically or Outcome by Outcome.

For Outcome 1, written and/or oral evidence is required which demonstrates that candidates can:

- ◆ identify the three basic operator controls involved in driving a tractor.
- ◆ state the function of three operator driving controls and two in cab instrumentation panels.

For Outcome 2, performance evidence is required to demonstrate that candidates can:

- ◆ complete a vehicle condition assessment before use.
- ◆ check three tractor fluid levels before engine start up.
- ◆ use personal protective equipment as appropriate to the task and take account of vehicle conditions.

For Outcome 3, performance evidence is required which demonstrates that candidates can:

- ◆ drive a tractor safely around a straightforward route with due regard to equipment and conditions.
- ◆ demonstrate tractor driving manoeuvres, to include reversing and accessing a confined space.

National Unit specification: support notes

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This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 20 hours.

Guidance on the content and context for this Unit

This is an optional Unit within the National Certificate in Agriculture at SCQF level 6 but can also be taken as a freestanding Unit. In this Unit, candidates will learn about the function of the main controls and instrumentation involved in driving a tractor. Candidates will develop understanding of the importance of pre-start checks and undertake them in a practical situation, before driving a tractor safely and responsibly around a straightforward route. Candidates will also learn how to safely manoeuvre a tractor in different situations.

This Unit should prepare candidates for further practical study in relation to tractor and equipment operation.

In Outcome 1, when considering the main controls involved in driving a tractor, this should include the clutch, brake and gears. Instrumentation controls should include the fuel, oil and temperature gauge. Other controls and instruments such as gear shift and basic vehicle lighting and indicators should be pointed out.

In Outcome 2, discussion should take place around general vehicle condition, road worthiness and overall safety condition. Adjustments pre-start should include fuel, water and oil levels. Tyre inflation levels and light bulb change could also be highlighted. Personal equipment in terms of clothing and footwear suitability for driving should be acknowledged, as well as the use of protective equipment such as gloves when handling oils and other substances. Personal safety should also be highlighted in relation to the location and condition of the tractor, for example on sloping ground, ensuring the tractor is switched off with the handbrake on when making checks.

In Outcome 3, candidates should be able to safely drive a tractor though a route or straight forward course, using the key driving controls as appropriate and required. The skill of reversing and driving a tractor into a confined space, in terms of height, length or width should also be taught.

This Unit is broadly aligned to elements of the following National Occupational Standard (NOS) from Lantra:

CU11 Prepare and operate a tractor with attachments

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

The Unit should be delivered in as practical a context as possible with the emphasis on practical application of the knowledge and understanding taught.

Candidates would benefit from working in small practical groups around a modern tractor in order to undertake practical checks and tasks, as well as individual practical driving experience.

By blending the delivery of knowledge and understanding sessions with practical activities around a tractor, candidates should have opportunities to develop the following essential skills for life, learning and work:

- ◆ Employability — through developing practical skills in line with good farm practice and working on time limited tasks.
- ◆ Technical skills — through interpreting tractor instrumentation panels and driving abilities.
- ◆ Interpersonal skills — through team work with other candidates.

Delivery of this Unit could be integrated with the Unit *Tractor Operations and Attachments* (SCQF level 5).

Guidance on approaches to assessment for this Unit

A holistic approach to assessment of Outcomes is encouraged, and the following approaches to assessment suggested.

Outcome 1: Short answer or multiple choice questions to demonstrate knowledge and understanding of the main controls and instrumentation of a tractor.

Outcome 2: A practical task involving pre-start check list/vehicle condition assessment sheet for a tractor prior to operation.

Outcome 3: A practical tractor driving task with an assessor observation checklist.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit specification: support notes (cont)

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Opportunities for developing Core Skills

In this Unit, candidates will develop knowledge and practical skills in preparing a tractor for operation and safe driving. Candidates will:

- ◆ identify modern tractor controls and their purposes.
- ◆ interpret tractor instrumentation.
- ◆ assess a tractor and decide if it is safe and ready for use.
- ◆ drive and operate a tractor.
- ◆ make judgements in relation to space and vehicle manoeuvrability.

This means that as candidates are doing this Unit they may develop aspects of the Core Skills of *Communication* and *Problem Solving*.

In addition, aspects of the following Core Skills could be developed where particular learning and teaching approaches are adopted:

- ◆ *Numeracy* — through measurement of liquids and fluids, such as oil and fuel, and/or interpretation of graphical instrumentation in the tractor cab, eg relating to engine temperature
- ◆ *Working with Others* — through carrying out tasks in small groups

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date

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