

-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 4120641 -Session- 1991-92
-Superclass- TK

**-Title- GENERAL BUILDING OPERATIVES: USE OF SMALL
CONSTRUCTION PLANT**

-DESCRIPTION-

Purpose This module is designed to develop the knowledge and skills required to use a range of small construction plant safely.

It is aimed at those following a career as a General Building Operative or in similar positions in the Building and Allied Industries.

Preferred Entry Level	4120551	General Building Operatives: Lifting and Handling Skills
	4120511	General Building Operatives: Construction Materials
	4120591	General Building Operatives: Scaffolding Safety
	4120631	General Building Operatives: Use of Hand and Power Tools

Outcomes The student should:

1. identify standard building site equipment appropriate to a task on site;
2. operate standard building site machines;
3. identify standard building site machines that have specific conditions or hazards associated with their use.

Assessment Procedures Acceptable performance in the module will be satisfactory achievement of all the Performance Criteria specified for each Outcome.

The following abbreviations are used below:

PC Performance Criteria
IA Instrument of Assessment

Note: The Outcomes and PCs are mandatory and cannot be altered. The IA may be altered by arrangement with SQA. (Where a range of performance is indicated, this should be regarded as an extension of the PCs and is therefore mandatory).

OUTCOME 1 IDENTIFY STANDARD BUILDING SITE EQUIPMENT APPROPRIATE TO A TASK ON SITE

PCs

- (a) The identification is correct in terms of:
- (i) the safe working limits set for the machine;
 - (ii) the nature of the materials being processed, transported or produced;
 - (iii) the terrain;
 - (iv) the working environment.
- (b) The working practices followed by the student are safe and in accordance with current regulations.

IA Practical Exercise

The student will be set a practical exercise to test the knowledge required to identify standard building site equipment appropriate to a task on site.

The exercise will consist of three tasks, involving the use of (i) a roller, (ii) a pump, (iii) a vibrator.

The student will be required to select:

- (i) a roller of a size and type appropriate to the task in hand;
- (ii) a pump of a size and type appropriate to the task in hand;
- (iii) a vibrator of a size and type appropriate to the task in hand.

The student will be given a verbal outline of the task in hand and will be acquainted with the nature of the terrain, the environment and the materials involved.

Satisfactory achievement of the Outcome will be based on the student attaining all the Performance Criteria.

OUTCOME 2 OPERATE STANDARD BUILDING SITE MACHINES

PCs

- (a) The operation is correct in terms of:
- (i) the relevant safety and maintenance check prior to use and action;
 - (ii) adherence to the start-up procedure;
 - (iii) the execution of a check-on operation before commencing working;
 - (iv) adherence to safe working practices prior to, during and after operation of the machine.
 - (v) adherence to the shut-down procedure;
 - (vi) adherence to the defect reporting system;
 - (vii) the execution of routine maintenance as specified.

IA Practical Exercise

The student will be set a practical exercise to test the knowledge and skills required to operate standard building site machines.

The exercise will consist of one compulsory task and two others to be selected from the list below:

Compulsory Task

Set up 5/3.5 mixer ready for use
 Start
 Close engine shed
 Stop (using correct technique appropriate to engine)
 Prepare for removal from site.

Selected Tasks

The student will be required to complete two tasks from the list given below:

1. Set up compressor ready for operation
 Start compressor
 Check operation
 Stop compressor
 Drain down air reservoir
 Prepare for removal from site

2. Set up generator ready for operation
 Start generator
 Check operation
 Stop generator
 Prepare for removal from site

3. Set up roller for use
Start
Operate in correct mode appropriate to task
Stop
4. Set up pump ready for operation
Select correct filter for suction side
Prime if required
Start
Check operation
Stop
Prepare for removal from site
5. Set up hoist ready for operation
Check restriction of use notices are in place
Start hoist
Test operation to full height and return platform to ground level
Check any relevant interlocks
Stop hoist
6. Set up vibration equipment for use
Start vibrator
Check operation
Stop vibrator
Clean relevant components
Prepare for removal from site

Satisfactory achievement of the Outcome will be based on the student attaining all the Performance Criteria.

OUTCOME 3

IDENTIFY STANDARD BUILDING SITE MACHINES THAT HAVE SPECIFIC CONDITIONS OR HAZARDS ASSOCIATED WITH THEIR USE

PCs

- (a) The identification is correct in terms of complete awareness as to:
 - (i) the requirements under the Health and Safety at Work Act regulations regarding the safe operation of specific equipment;
 - (ii) the age limits set under Health and Safety at Work regulations regarding the operation of certain plant;
 - (iii) when and where certain plant may be legally operated;
 - (iv) what level of maintenance task may be undertaken by the operative.
- (b) The working practices followed by the student are safe.

IA Restricted Response

The student will be presented with a restricted response exercise to test the knowledge required to identify standard building site machines that have specific conditions or hazards associated with their use.

The exercise will consist of 3 questions on the following:

- (i) requirements of the Health and Safety at Work Act concerning construction and use;
- (ii) other regulations or statutory instruments;
- (iii) levels of maintenance to be undertaken.

Satisfactory achievement of the Outcome will be based on the student attaining all the Performance Criteria.

**The following sections of the descriptor are offered as guidance.
They are not mandatory.**

CONTENT/CONTEXT

Corresponding to the Learning Outcomes 1-3:

Mobile compressor, mobile or portable generator, 5/3.5 concrete mixer, pedestrian operated roller, and/or ride-on double roller, pump (up to 50 LPM), vibrator types including internal poker vibrators, plate vibrators, vibrating screeding beams.

SUGGESTED LEARNING AND TEACHING APPROACHES

Tuition may be given in the workshop initially and followed by instruction on site or may be wholly undertaken under site conditions.

The student will be expected to gain experience in selecting equipment appropriate to the specified task and in operating the chosen equipment, and to acquire full knowledge of those machines that have specific conditions or hazards attached to or associated with their use. The practical exercises should be carried out on the actual equipment with student participation following a demonstration or demonstrations of the required operation.

The safety and maintenance procedures, operating limits and the specific conditions or hazards associated with the operation and use of certain types of construction plant should be discussed fully with the student prior to the task being undertaken, as should the routine maintenance and defect-reporting systems.

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