

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0074423 -Session-1987-88
-Superclass- XS

-Title- SMALL ENGINE POWERED MACHINE OPERATION
(x ½)

-DESCRIPTION-

Type and Purpose A general module which enables the student to acquire the skills required for the safe operation and maintenance of small engine powered machines (excluding chainsaws).

Preferred Entry Level No formal entry requirements.

Learning Outcomes The student should:

1. select machines suitable for given applications;
2. carry out daily and weekly servicing according to manufacturers' instructions;
3. operate a range of small powered machines safely;
4. carry out simple post-use service and report activities.

Content/ Context Safety regulations and safe working practices and Procedures should be observed at all times.

Manufacturer's Codes of Practice for the use of machines should be observed.

Corresponding to Learning Outcomes 1-4:

1. Selection criteria for a range of work situations. Machines could include power mower, cultivator, hedge cutter, brush cutter, lawn aerator, roller, scarifier.

2. Use of the operator's manual for items to be checked, such as: battery connections; tyre pressures; fuel system leaks; filters; loose nuts and bolts, chain/belt tensions, oil levels etc.
3. Recognition of the main external components. Operation of the machine. Selection and use of safety equipment relevant to the machine being operated, eg. helmet, goggles, safety and safe working practices.
4. Cleaning of machine after use, completion of log book and report of defects.

Suggested Learning and Teaching Approaches

A range of machines should be used - at least one of which should be a machine which students are likely to use in the work situation, eg. power mower, cultivator, hedge cutter, brush cutter, lawn aerator, roller, scarifier, etc.

The learning approaches should be based on practical activities with a minimum of classroom work.

The safety codes machines in use at the learning establishment should be distributed to students, who, once they have had time to study the machine in question with an instructor, should observe the machine being operated.

Initial instruction should be given with a student staff ratio consistent with safe practice. Safety and safe working practices should be emphasised at all times.

Students should identify various components using the operator's manual.

Students should be encouraged to think of cleaning machines filling in log books and reporting defects as routine procedure.

Assessment Procedures

Acceptable performance in the module will be satisfactory achievement of the performance criteria specified for each Learning Outcome.

The following abbreviations are used below:

LO - Learning Outcomes
 IA - Instrument of Assessment
 PC - Performance Criteria

- LO1 IA Practical exercise used with an observation checklist involving the selection of suitable machines.
- PC The student correctly selects a suitable machine for each of three different applications taking safety aspects and power rating into account.
- LO2 IA Practical exercises used with observation checklists involving daily and weekly servicing.
- PC The student for 3 different types of machine:
- (a) carries out daily and weekly servicing according to manufacturers instructions;
 - (b) wears all necessary safety clothing and equipment;
 - (c) uses all tools and equipment safely.
- LO3 IA Practical exercises used with observation checklists involving the operation of small powered machines.
- PC The student correctly operates machines in each of the different types and:
- (a) sets correct operational adjustments;
 - (b) operates the machines satisfactorily;
 - (c) wears all necessary safety clothing and equipment;
 - (d) uses tools and equipment safely.
- LO4 IA Practical exercise used with an observation checklist involving post use servicing of a machine.
- PC The student correctly:
- (a) completes a work record;
 - (b) gives a verbal report using correct terminology;

- (c) completes the post-use cleaning of a machine;
- (d) completes the post-use servicing for storage.

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