

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0064513 -Session-1986-87

-Superclass- XS

**-Title- MOTORCYCLE SYSTEMS: SMALL ENGINE
MAINTENANCE**

-DESCRIPTION-

Type and Purpose A specialist module which enables the student to service and maintain a range of single cylinder, unit construction motor cycle engines and transmission units.

Preferred Entry Level 04002 - Fundamentals of Technology: Mechanical
04020 - Assembly Skills (1/2)
04050 - Introduction to Materials (1/2)
04410 - Engineering Systems 1: Machines and Mechanisms

Learning Outcomes The student should:

1. know the layout and constructional features of single cylinder engines and transmission units;
2. service and adjust single cylinder engine/transmission units;
3. dismantle and reassemble single cylinder engine/transmission units;
4. service and maintain lubrication and cooling systems;
5. comply with regulations and procedures and use of safe working practices specified for equipment and work areas.

Content/Context Corresponding to the Learning Outcomes:

1. layout, name and function of components in motor cycle engines and transmission units.

Advantages and disadvantages of various designs and constructions.

2. service adjustments and maintenance procedures.

Sources of information on service adjustments and maintenance.

3. procedures for dismantling and reassembling engine and transmission units.

Inspection of dismantled units and components to determine serviceability.

4. procedures for servicing and maintenance of lubrication systems and air and water cooling systems.

Fault finding procedures and rectification of common faults.

5. safety precautions applicable to tools, equipment and work areas.

Suggested Learning and Teaching Approaches

The module activities should be experienced in an environment appropriate to the learning outcomes.

Demonstrations should be followed by student centred exercises.

The need to work logically and in an orderly manner should be emphasised.

Students should be encouraged to discuss problems, exchange ideas, assist each other and make decisions.

Students should have ready access to relevant manufacturers' technical publications.

Safety, safe working practices, and care and use of equipment should be an integral part of all module activities.

Assessment Procedures

All learning outcomes must be validly assessed.

The student must be informed of the tasks which contribute to summative assessment. Any unsatisfactory aspects of performance should, if possible, be discussed with the student as and when they arise.

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 Outcome
 - IA Instrument of Assessment
 - PC Performance Criteria
- LO1 IA Written/graphics exercise (incomplete worksheet).
- PC The student correctly:
- (a) identifies components by location and function;
 - (b) describes constructional features.
- LO2 IA Practical assignment (observation checklist).
- PC The student correctly services and adjusts a unit in accordance with the manufacturer's instructions.
- LO3 IA Practical assignment (observation checklist).
- PC The student correctly dismantles and re-assembles a unit in accordance with instructions.
- LO4 IA Practical assignment (observation checklist).
- PC The student correctly services a lubrication and cooling system as instructed.
- LO5 IA Observation checklist (in which the following elements must be included).
- PC The student consistently:
- (a) wears all necessary safety clothing and equipment;
 - (b) behaves in a manner appropriate to the working environment;
 - (c) uses tools and equipment safely.