

-SQA- SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	2210661	-Session-1991-92
-Superclass-	XA	

-Title-	SAFE WORKING PRACTICES IN THE VEHICLE WORKSHOP
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-DESCRIPTION-

Purpose	The module is designed to develop a basic knowledge of the safe working requirements, procedures and skills associated with the vehicle repair industry.
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It is aimed at those intending to pursue a career in the vehicle body construction, vehicle repair and vehicle painting industries. This module is also intended to complement the RTITB Foundation Modules and will provide the student with the necessary knowledge and skills to prepare for the RTITB Skills Test.

It is aimed at those following a programme of study in the motor vehicle repair industry and receiving complementary industrial experience.

Preferred Entry Level	No formal entry requirements.
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Outcomes	The student should: <ol style="list-style-type: none">1. outline the main requirements of the current Health and Safety at Work Act;2. outline safe working practices in the vehicle workshop;3. remove and refit a vehicle's road wheels;4. identify the hazards involved and the precautions to be followed when using electricity;5. outline basic fire safety measures.
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Assessment
Procedures

Acceptable performance in this 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

OUTLINE THE MAIN REQUIREMENTS OF THE CURRENT HEALTH AND SAFETY AT WORK ACT

PCs

- (a) Explanation of employers' responsibilities is correct in relation to the current Health and Safety at Work Act.
- (b) Explanation of the responsibilities of employees is correct in terms of taking care of their own health and safety plus that of others.
- (c) Description of the causes of accidents is correct in relation to human and environmental causes.
- (d) Description of alternative methods of accident prevention includes:
 - (i) elimination, minimisation of hazards;
 - (ii) guarding of hazards;
 - (iii) personal protection;
 - (iv) safety education notices and publicity;
 - (v) identification and security of dangerous materials;
 - (vi) alertness and attentiveness.
- (e) Description of methods of protecting skin, eyes, hands and limbs is correct in relation to the current Health and Safety Work Act.

IA Objective Test

The student will be presented with an objective test to test the recall of knowledge relating to the current Health and Safety at Work Act.

The test could take the form of restricted response or short answer questions.

The test will consist of 22 items corresponding to the Performance Criteria and allocated as follows:

- (a) employers' responsibilities; 7

- (b) employees' responsibilities; 2
- (c) causes of accidents;
 - (i) human causes; 2
 - (ii) environmental causes; 1
- (d) accident prevention; 4
- (e) personal protection. 6

Satisfactory achievement of the Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student producing correct responses as follows:

- (a) 5
- (b) 2
- (c) (i) 2
- (ii) 1
- (d) 3
- (e) 5

OUTCOME 2

OUTLINE SAFE WORKING PRACTICES IN THE VEHICLE WORKSHOP

PCs

- (a) The identification of safe working practices within the workshop area is correct in relation to:
 - (i) movement of vehicles;
 - (ii) materials handling and storage;
 - (iii) good housekeeping;
 - (iv) gantries;
 - (v) master and emergency switches.
- (b) The description of procedures to be followed in the event of faults on tools and machinery is correct in relation to identifying faults and initiating fault reporting.

IA Objective Test

The student will be presented with an objective test to test the recall of knowledge relating to safe working practices in the vehicle workshop.

The test could take the form of restricted response or short answer questions.

The test should consist of 20 items based on the Performance Criteria and allocated as follows:

- (a) 10
- (b) The student will be presented with a selection of 10 handtools, each of which should have a fault.

Satisfactory achievement of the Outcome will be based on the Performance Criteria being met. This will be demonstrated by the student producing 14 correct responses, seven from (a), including at least 1 from each of (i) to (v), and 7 from (b) above.

OUTCOME 3**REMOVE AND REFIT A VEHICLE'S ROAD WHEELS**

PCs

- (a) The preparation of vehicle for lifting is correct in relation to vehicle positioning, personal safety and the safety of others.
- (b) The procedures followed for the removal and refitting of road wheels ensures that the vehicle is safe at all stages.
- (c) The overall procedures followed for the removal and refitting of road wheels ensure that the vehicle is safe for future road use.

IA Practical Exercise

The student will be presented with a practical exercise to test the application of knowledge and skills required to remove and refit vehicle road wheels.

The practical exercise will be based on the Performance Criteria.

Satisfactory achievement will be based on all Performance Criteria being met.

OUTCOME 4**IDENTIFY THE HAZARDS INVOLVED AND THE PRECAUTIONS TO BE FOLLOWED WHEN USING ELECTRICITY**

PCs

- (a) Identification of the potential hazards of electricity is correct in respect of electric shock, fire and insulation failure.
- (b) Identification of action to be taken in the event of an accident involving electricity is correct in terms of minimising damage and risk.

IA Objective Test

The student will be presented with an objective test to test the recall of knowledge relating to the identification of hazards involved and the precautions to be followed when using electricity.

The objective test could take the form of short answer questions.

The test will take the form of 18 items allocated as follows:

- | | | | |
|-----|-------|----------------------|---|
| (a) | (i) | electric shock | 3 |
| | (ii) | electrical fires | 3 |
| | (iii) | insulation failure | 3 |
| (b) | (i) | electric shock | 3 |
| | (ii) | electrical fires | 3 |
| | (iii) | insulation breakdown | 3 |

Satisfactory achievement of the Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student producing correct responses as follows:

- | | | |
|-----|-------|---|
| (a) | (i) | 2 |
| | (ii) | 2 |
| | (iii) | 2 |
| (b) | (i) | 2 |
| | (ii) | 2 |
| | (iii) | 2 |

OUTCOME 5

OUTLINE BASIC FIRE SAFETY MEASURES

PCs

- (a) The identification of working practices which contribute to the prevention of fires in the workplace is in accordance with current legislation.
- (b) The identification of fire emergency procedures is in accordance with the current legislation.
- (c) The identification of the use of specified fire extinguishers is correct for a range of fires.
- (d) Description of the uses of a fire blanket is correct for a range of fires.

IA Objective Test

The student will be presented with an objective test to test the knowledge relating to basic fire safety measures. The test could take the form of short answer, completion exercise or multiple choice questions.

The exercise will consist of 17 questions based on the Performance Criteria allocated as follows:

- | | | |
|-----|---|---|
| (a) | 6 | |
| (b) | | 4 |
| (c) | | 5 |
| (d) | | 2 |

Satisfactory achievement of the Outcome will be based on all Performance Criteria being met. This will be demonstrated by the student producing correct responses.

(a)	4
(b)	3
(c)	3
(d)	1

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

CONTENT/CONTEXT

Corresponding to Outcomes.

1. Employers' responsibilities should include safe access and exit; maintenance of equipment in a safe condition, provision of protective clothing; maintenance of a safe working environment; provision of safe methods of handling, storing and transporting goods; accident reporting procedures; informing, instructing and supervising employees; provision of a company safety policy.

Employees' responsibilities should include; safeguarding personal health and safety of self and others; adopting a safe working attitude.

Causes of accidents should include:

human causes such as carelessness; improper behaviour and dress lack of training; fatigue; alcohol.

environmental causes such as unguarded or faulty machinery and tools; inadequate ventilation; untidy, dirty, overcrowded and badly-lit workplaces.

Accident Prevention should include: elimination or minimisation of hazards; guarding of hazards; personal protection; safety education notices and publicity; identification and security of dangerous materials; alertness and attentiveness.

Personal protection should include; personal hygiene, care of eyes, skin protection and care; barrier creams; advantages and disadvantages of using protective clothing; eye and face protectors; respirators, hard hats; hard capped footwear; potential dangers of hair and loose clothing getting caught in machinery; use of safety guards, screens and fences.

2. Safe working practices should include; movement of vehicles in a workshop and the associated hazards of fumes, speed and floor surface; lifting and handling of goods manually and mechanically; storage of materials; spillages and breakages; cleanliness and tidy working practices; hazards of adhesives and resins; gantries, scaffolding, trestles and staging; master switches position and use; position, access, usage and type of emergency switches.

Handbooks and machinery should include toothed handtools; handtools with a cutting edge; shearing tools; hammers; dollies; cold chisels; screwdrivers; spanners; drills; rotary cutters; electric and pneumatic power hand tools; hand powered workshop machine; electrical, mechanical and hydraulic workshop equipment.

4. The identification of the hazards involved in electricity should include the causes and effects on the body of electric shock, electrical fires and insulation failure. The remedial action in the event of an accident involving electricity should include; the removal of contact between casualty and electricity supply and immediate first aid techniques for shock and burns following an electric shock; the causes and remedial action to be taken in the event of electrical fires; the causes and remedial action to be taken in the event of an insulation breakdown; the use of fuses, circuit breakers and residual current devices.
 5. Basic fire safety measures should include; fire prevention, the causes of fires; characteristics of spread; flammability of materials; flashpoint; toxicity and fumes; fire emergency procedures; emergency exits; emergency signs, colours and directions; fire alarms and drills; fire extinguisher type, colour and application; the purpose, application and methods of using fire blankets.
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SUGGESTED LEARNING AND TEACHING APPROACHES

The student should be encouraged to relate safe working practices to the working environment as far as possible.

A suitable checklist should be used to record the student's performance in the practical exercise.

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