

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
24 Douglas Street
GLASGOW G2 7NQ**

NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number- 0094376 -Session-1989-90
-Superclass- XS

-Title- VEHICLE COMPONENT: SECURING DEVICES (x¹/₂)

-DESCRIPTION-

Purpose This module introduces the student to the wide range of securing and locking devices used by vehicle components and develops the necessary skills required for their use.

It is aimed at those intending to pursue a career in the motor vehicle repair industry. The module is also designed to complement RTITB module MVO14F Light and Heavy Vehicle: Repair and Maintenance Skills and will provide the student with the necessary knowledge and skills to prepare for the RTITB Skills Test. It should be noted however that adequate supporting industrial experience will also be necessary.

Preferred Entry Level No formal entry requirements

Learning Outcomes The student should:

1. identify a range of locating, securing and locking devices;
2. select and fit appropriate locating, securing and locking devices for a range of applications;
3. describe the use of adhesives for a range of applications.

Content/
Context

Safety regulations, safe working practices and procedures should be observed at all times.

Corresponding to Learning Outcomes 1-3:

This module should be taught in the context most suited to the student's particular needs.

1. Reasons why different locating, securing and locking devices are used on vehicles. The importance of securing devices with regard to vehicle safety and/or component wear should be stressed. The common use of a wide range of securing devices used on all types of vehicles should be emphasised.
2. The students ability to find and interpret manufacturers' instructions regarding the selection and application of securing and locking devices, particularly adhesives, should be encouraged.
3. In view of the very high cost of adhesives, and the very wide and constantly changing range, the students should only be required to "describe the use of adhesives". However, a complete range of adhesives, in current use, with manufacturers' instructions should be available for inspection by students.

Suggested
Learning and
Teaching
Approaches

This module should be undertaken in a service workshop with an adequate range of components or specially prepared rigs with all the locating, securing and locking devices to be covered. Students should have full access to relevant service/manufacturers' publications, special tools, locating, securing, locking devices including adhesives.

Assessment
Procedures

Acceptable performance in the module will be satisfactory achievement of all 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 IDENTIFY A RANGE OF LOCATING, SECURING AND LOCKING DEVICES

PC The student:

- (a) identifies and name locating, securing and locking devices;
- (b) identifies applications of particular locating devices;
- (c) identifies applications of particular locking devices;
- (d) identifies applications of particular securing devices.

IA Objective test

The student will be presented with an objective test to test the recall of knowledge of the identification and applications of a range of locating, securing and locking devices.

The objective test could take the form of a matching exercise or short answer questions.

The test will consist of 12 items allocated as follows:

- | | |
|--------------------------------------|---|
| (a) naming devices | 6 |
| (b) applications of locating devices | 2 |
| (c) applications of locking devices | 2 |
| (d) applications of securing devices | 2 |

Satisfactory achievement of the Learning Outcome will be based on all performance criteria being met. This will be demonstrated by the student producing 5 correct responses to (a) and at least 4 correct responses for (b), (c) and (d) above, with a minimum of one correct from each.

LO2 SELECT AND FIT APPROPRIATE LOCATING, SECURING AND LOCKING DEVICES FOR A RANGE OF APPLICATIONS

PC The student:

- (a) selects securing devices for given applications;
- (b) selects locking devices for given applications;
- (c) uses recognised procedures when fitting securing, locating and locking devices;
- (d) complies with all appropriate safety requirements relevant to the task.

IA Practical Exercise

The student will be presented with a practical exercise to test the application of knowledge and skills involved in the selection and fitting of locating, securing and locking devices for a range of applications.

The exercise should involve the fitting of the following devices:

- (i) bolts/nuts;
- (ii) rivets;
- (iii) screws;
- (iv) body fasteners;
- (v) slotted or castellated nuts;
- (vi) self locking nuts;
- (vii) lock tabs or plates;
- (viii) washers;
- (ix) dowels;
- (x) registers;
- (xi) spigots.

Satisfactory achievement of the Learning Outcome will be based on all performance criteria being met.

LO3

DESCRIBE THE USE OF ADHESIVES FOR A RANGE OF APPLICATIONS

PC The student:

- (a) names the main types of adhesives;
- (b) state typical applications of each type of adhesive;
- (c) states procedures for applying a range of adhesive types;
- (d) states limitations on the use of adhesives in specific situations;
- (e) states health and safety hazards associated with the use of adhesives.

IA Objective Test

The student will be presented with an objective test to test the recall of knowledge of the use of adhesives for a range of applications.

The objective test could take the form of completion items, matching items, grid question or short answer.

The test will consist of 14 items allocated as follows:

- | | | |
|-----|-------------|---|
| (a) | types | 3 |
| (b) | application | 3 |
| (c) | procedures | 3 |
| (d) | limitations | 3 |
| (e) | hazards | 2 |

Satisfactory achievement of the Learning Outcome will be based on all performance criteria being met. This will be demonstrated by the student producing at least 2 correct responses for each of (a), (b), (c), (d), and (e) above.

© Copyright SQA 1989
