

## **Maintenance & Repair - Heavy Vehicle** **(Assessment Requirements-Skills Units)**

### **Assessment Requirements**

#### **Unit G0102S – Demonstrating Skill in Health, Safety and Good Housekeeping in the Automotive Environment**

##### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of use of personal and vehicle protection, cleaning the work environment and disposal of waste on **2** separate **occasions**.
5. produce evidence of identifying risks which may result from at least **2** of the items listed below:
  - the use and maintenance of machinery or equipment
  - the use of materials or substances
  - working practices which do not conform to laid down policies
  - unsafe behaviour
  - accidental breakages and spillages
  - environmental factors
6. produce evidence of identifying risks.
7. produce evidence of following at least **2** of the workplace policies listed below:
  - the use of safe working methods and equipment
  - the safe use of hazardous substances
  - smoking, eating, drinking and drugs
  - what to do in the event of an emergency
  - personal presentation
8. produce evidence of following workplace policies

## Assessment Requirements

### Unit G3S – Demonstrating Skill in Supporting Job Roles in the Automotive Work Environment

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce witness testimony from your peers **and** supervisor **or** tutor that you have worked well with others.
5. produce evidence carrying out the above whilst performing your normal duties.

## Assessment Requirements

### Unit G4S – Demonstrating Skills in the use of Materials, Fabrication, Tools and Measuring Devices in the Automotive Environment

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of undertaking basic routine checks of hand tools, measuring devices and workshop equipment covering all of those listed below:
  - electrical
  - mechanical
  - pneumatic
  - hydraulic
5. produce evidence of fabricating **at least 1 item** from suitable materials to known tolerances, which includes the following processes:
  - filing
  - tapping threads
  - cutting
  - drilling
  - joining
6. be observed by your assessor carrying out routine checks and during stages of fabrication

## Assessment Requirements

### Unit G6S – Demonstrating Skills in Making Learning Possible through Demonstration and Instruction

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. provide **1 record** of an activity which has been a combination of demonstration and instruction.
5. provide records of an **observation**, which covers **a combination of demonstration and instruction**.

It is expected that the **records** must include evidence to show how you:

- decided on the sequence of the demonstration
- ensured that the demonstration was accurate and realistic
- identified which learning outcomes were achieved
- ensured a safe environment for the demonstration and allowed all learners to see the demonstration clearly

In preparing the record you should consider:

- which types of learning are best achieved and supported through demonstrations
- how to choose between instruction and demonstration as learning methods
- how to identify individual learning needs
- which factors are likely to prevent learning and how to overcome them
- how to choose and prepare appropriate materials, including technology based materials.
- which types of learning are best achieved through instruction
- how to make sure everybody acts in line with health, safety and environmental protection legislation and best practice
- how to analyse developments in learning and new ways of delivery, including technology based learning

It is also expected that evidence from your observations **will show** how you:

- structured the demonstration so that the learner got the most out of it
- encouraged learners to ask questions and get explanations at appropriate stages in the demonstration
- gave learners the opportunities to practice the skill being demonstrated
- gave learners positive feedback
- reinforced learning by repeating demonstration
- responded to the needs of learners during the demonstration
- reduced distractions and disruptions as much as possible
- matched instruction to the needs of learners
- ensured that the manner, level and speed of the instruction encourages learners to take part
- regularly check that learners understand and adapt instruction as appropriate
- gave learners positive feedback on the learning experience and the outcome achieved
- identified anything that prevented learning and reviewed this with the learner

Evidence from **real** or **simulated** activities and **role play** is acceptable for this unit.

## Assessment Requirements

### Unit G8S – Demonstrating Skills in Identifying and Agreeing Motor Vehicle Customer Service Needs

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence, including records, to show that you have dealt with **3 different customers**.
5. be observed by your assessor on at least **1** occasion

Evidence from real activity **or role-play is acceptable** for this unit

## Assessment Requirements

### Unit HV01S – Demonstrating Skills in Routine Heavy Vehicle Maintenance

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out servicing activities based on routine checks and inspections on **at least 1 vehicle** which **must** cover the Learning Outcomes.

## Assessment Requirements

### Unit HV02S – Demonstrating Skills in Removing and Replacing Heavy Vehicle Engine Units and Components

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the removal and replacement of engine mechanical units and components from **3 different systems out of the 5 listed below not** including standard external filters:
  - engine mechanical systems
  - cooling systems
  - air supply and exhaust systems
  - fuel systems
  - lubrication systems



## Assessment Requirements

### Unit HV03S – Demonstrating Skills in Removing and Replacing Heavy Vehicle Electrical Units and Components

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the removal and replacement of vehicle electrical units and components from:
  - engine starting systems
  - engine charging systems

**PLUS** 2 different systems out of the 8 listed below:

- a. lighting
- b. wiper
- c. security and alarm
- d. comfort and convenience
- e. information and entertainment
- f. telephone and two-way communication
- g. electric window systems
- h. monitoring and instrumentation systems

## Assessment Requirements

### Unit HV04S – Demonstrating Skills in Removing and Replacing Heavy Vehicle Chassis Units and Components

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the removal and replacement of **2 different units or components** – from 2 of the systems below. Your evidence must include demonstration of skill **in each** aspect of mechanical and hydraulic or pneumatic unit or component removal and replacement
  - steering
  - suspension
  - braking

## Assessment Requirements

### Unit HV05S – Demonstrating Skills in Inspecting Heavy Vehicles Using Prescribed Methods

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your normal workplace or in a Realistic Work Environment as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out **at least 2** different inspections from the following:
  - pre-delivery and pre-purchase
  - daily vehicle checks
  - pre and post rental inspections

## Assessment Requirements

### Unit HV06S – Demonstrating Skills in Inspecting Heavy Vehicles to Comply with Legal Requirements

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your normal workplace or in a Realistic Work Environment as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. be observed by your assessor carrying out **at least 2** different inspection from the following:
  - pre-MOT inspection
  - scheduled safety inspections (PMI)
  - post accident safety inspection

## Assessment Requirements

### Unit HV07S – Demonstrating Skills in Diagnosing and Rectifying Heavy Vehicle Engine Faults

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the diagnosis and rectification of faults occurring in **3 out of the 7** engine systems listed. The faults should involve a **2 or more** step diagnostic activity.
  - engine mechanical components
  - cooling
  - fuel systems
  - engine management system
  - pressure charged induction systems
  - exhaust emission reduction systems
  - heating, and ventilation

## Assessment Requirements

### Unit HV08S – Demonstrating Skills in Diagnosing and Rectifying Heavy Vehicle Chassis System Faults

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the diagnosis and rectification of **2** faults occurring in the systems listed below. The faults should involve a **2 or more** step diagnostic activity. The evidence must include demonstration of skill in at least **1** of each: mechanical and electrical / electronic or hydraulic / pneumatic units or components.
  - Steering systems
  - Suspension systems
  - Braking systems

## Assessment Requirements

### Unit HV11.1S – Demonstrating Skills in Overhauling Light Vehicle Engine Units

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of overhauling **1 unit** which includes cylinder head and block.

## Assessment Requirements

### Unit HV11.2S – Demonstrating Skills in Overhauling Heavy Vehicle Gearbox and Final Drive Units

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of overhauling **1 unit** which includes **either** a Gearbox **or** a Final Drive unit



## Assessment Requirements

### Unit HV11.3S – Demonstrating Skills in Overhauling Heavy Vehicle Steering and Suspension Units

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of overhauling **2 units** which includes **1** steering unit and **1** suspension unit.

## Assessment Requirements

### Unit HV12S – Demonstrating Skills in Removing and Replacing Heavy Vehicle Driveline Units and Components

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the removal and replacement of **1 unit or component from 2 of the areas** as listed below:
  - clutch
  - gearbox
  - drive line (shafts, couplings, hubs and bearings)
  - final drive
5. produce evidence of removing and replacing **1 unit or component** on **2 separate occasions**.

## Assessment Requirements

### Unit HV13S – Demonstrating Skills in Diagnosing and Rectifying Heavy Vehicle Transmission and Driveline Faults

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. produce evidence of carrying out the diagnosis and rectification of faults occurring in **2** of the systems listed. The fault should involve a **2 or more** step diagnostic activity.
  - clutch
  - gearbox
  - drive line (shafts, couplings, hubs and bearings)
  - final drive

## Assessment Requirements

### Unit AE06S – Demonstrating skills in Diagnosis and Rectification of Auxiliary Equipment Electrical Faults

#### General Requirements

You must:

1. produce evidence to show you meet **all** of the Learning Outcomes
2. produce performance evidence resulting from work you have carried out in your training workshop as managed and organised by an approved centre.
3. be observed by an assessor as defined by the IMI Assessment Strategy.
4. be observed by an assessor carrying out diagnosis and rectification activities from **3 different systems out of the 14 listed below**, which covers the learning outcomes. The fault should involve a **2 or more** step diagnostic activity.
  - lighting systems
  - heated seats
  - electrically adjusted seats
  - heated screens
  - electric mirrors
  - electric sunroofs
  - electric windows
  - heating and ventilation systems
  - information and entertainment systems
  - communication systems
  - SRS
  - wash wipe
  - locking systems
  - security and warning systems