SEG Awards Level 2

Motor Vehicle Studies

**Underpinning Knowledge Evidence Record**

**D/601/6025 Knowledge in Inspection, Repair and Replacement of Standard Light Vehicle Tyres**

|  |  |
| --- | --- |
| **Learners Name** |  |
| **SEG Awards Registration Number** |  |
| **Centre Name** |  |
| **Assessor 1 Name**  |  |
| **Assessor 2 Name**  |  |

**DECLARATION OF AUTHENTICITY**

This declaration must be completed and signed by the learner and countersigned by the tutor / assessor and covers all evidence submitted for moderation.

|  |  |
| --- | --- |
| Learner Name |  |
| Unique Learner Number (ULN) |  | SEGLearner Reg. ID |  |
| Qualification Title |  |
| Centre Name |  |

# Learner statement of authenticity

**Before signing please read the guidance below**.

I confirm, that the attached assignment / portfolio is all my own work[[1]](#footnote-1) and does not include any work completed by anyone other than myself. I have completed the assignment / portfolio in accordance with SEG Awards’ instructions and within the time limits set by my centre.

|  |  |  |  |
| --- | --- | --- | --- |
| Signature |  | Date |  |

# Centre confirmation of authenticity

On behalf of …………………………………….(insert centre name), I confirm that the above mentioned learner, to the best of my knowledge, is the sole author of the completed assignment / portfolio attached, and the assessments have been completed under the required conditions.

|  |  |  |  |
| --- | --- | --- | --- |
| Signed |  | Date |  |
| Name |  |
| Title |  |

**Guidance for Learners**

You have been asked to sign this Declaration of Authenticity and place it at the front of your portfolio or course work assessment. It confirms that the work you have submitted for assessment is your own and that you have not copied it from someone else or allowed another learner to copy it from you.

When preparing any course work it is good practice to undertake research using information from published sources. If you quote directly from these sources then this must be indicated in your work by using quotation marks and referencing the document from which the quotation was taken. You must then comment in your own words on any ideas expressed.

Assessors, internal verifiers and SEG Awards’ external moderators and verifiers are subject specialists who can spot the use of published materials that may be passed as your own words or ideas.

If you do copy words from a published source and do not indicate their reference you will be committing plagiarism. This is considered a form of cheating and may result in your assessment being declared void.

**Contents**

|  |  |  |
| --- | --- | --- |
| **Task No** | **Title** | **Assessment Criteria** |
| 1 | Wheels and tyres  | 1.1, 1.2, 1.3 ,1.4, 1.5 |
| 2 | Tools and equipment | 2.1, 2.2 |
| 3 | Repair materials | 3.1, 3.2 |
| 4 | Tyre markings, valve construction and faults  | 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7 |

|  |  |
| --- | --- |
| **Task 1 - Wheels and tyres**  | **Assessment Criteria 1.1, 1.2, 1.3 ,1.4, 1.5** |

|  |
| --- |
| **What is the main purpose of standard light vehicle tyres?** |
|  |

|  |
| --- |
| **Identify the labelled standard light vehicle tyre components in the table below** |
|  | **1** |  |
| **2** |  |
| **3** |  |
| **4** |  |
| **5** |  |
| **6** |  |
| **7** |  |
| **8** |  |

|  |
| --- |
| **Draw a diagram showing the construction and operation of the following 3 types of tyre and compare their differences** |
| **Cross ply** | **Compare the Construction and Operation** |
|  |  |
| **Bias belted** | **Compare the Construction and Operation** |
|  |  |
| **Radial** | **Compare the Construction and Operation** |
|  |  |

|  |
| --- |
| **Describe the construction and operation of the following 3 types of wheel and compare their differences** |
| **Steel** | **Describe the Construction and Operation and compare their differences** |
|  |  |
| **Alloy** | **Describe the Construction and Operation and compare their differences** |
|  |  |
| **Wire** | **Describe the Construction and Operation and compare their differences** |
|  |  |

|  |
| --- |
| **Explain the legal requirements for standard light vehicle tyres** |
| **Legal requirement** | **Explanation** |
|  |  |

|  |
| --- |
| **Explain the relevant parts of British and European Standard for the repair of light vehicle tyres** |
| **Standard** | **Explanation** |
|  |  |

|  |
| --- |
| **Give examples of how to deal with specialist waste in the workplace** |
| **Waste**  | **Explanation** |
|  |  |

|  |  |
| --- | --- |
| **Task 2 - Tools and equipment** | **Assessment Criteria 2.1, 2.2** |

|  |
| --- |
| **List tools and equipment used when working on standard light vehicle tyres** |
| **Name of Tool / Equipment** | **Tool / Equipment safety checks** | **Explain how you would use the tool /Equipment safely** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |
| --- |
| **State the specialist maintenance requirements of standard light vehicle wheel balancing and tyre removal/re-fitting equipment** |
| **Name of Tool / Equipment** | **Tool / Equipment maintenance requirements** | **Time to next check** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |  |
| --- | --- |
| **Task 3 - Repair materials** | **Assessment Criteria 3.1, 3.2** |

|  |
| --- |
| **In the table below identify types of repair materials used for repairing damage to high performance light vehicle tyres, describing when these materials should be used.** |
| **Type of Repair Material** | **When to use the Repair Material** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| **Task 4 - Tyre markings, valve construction and faults**  | **Assessment Criteria 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7** |

|  |  |
| --- | --- |
| **Valve Type** | **Describe their construction and how they are installed in the wheel** |
|  |  |
|  |  |
|  |  |

|  |
| --- |
| **Identify the labelled tyre markings below and explain the meaning of each** |
|  | **Explanation of Markings** |
|  | **A** |  |
| **B** |  |
| **C** |  |
| **D** |  |

|  |
| --- |
| **Describe different inspection and fault identification methods, and procedures for repair on standard light vehicle tyres** |
| **Inspection Method** | **Fault Found** | **Repair procedure** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

|  |
| --- |
| **Explain common faults and causes associated on light vehicle wheels**  |
| **Fault** |  **Cause** |
|  |  |
|  |  |
|  |  |

|  |
| --- |
| **Explain common faults and causes associated on standard light vehicle tyres** |
| **Fault** |  **Cause** |
|  |  |
|  |  |
|  |  |

|  |
| --- |
| **Describe the standard methods and procedures for removing and re-fitting a standard light vehicle tyre** |
|  |

|  |
| --- |
| **Explain in the table below the problems that can occur from the statements listed** |
| **Over sizing tyre / wheel fitment** |  |
| **Longitudinal / diagonal** |  |
| **Mixing radial / cross ply / bias belted****on the same or different axles** |  |

|  |
| --- |
| **Explain how you would carry out the wheel balance procedures below and why you would use them** |
| **Static** |  |
| **Dynamic** |  |

1. Unless otherwise stated e.g. for some entry level qualifications, learners can work together but should identify sections which are their own work. [↑](#footnote-ref-1)