SEG Awards Level 2

Motor Vehicle Studies

**Underpinning Knowledge Evidence Record**

H/601/5426 Knowledge of Removing and Replacing Exterior Motor Vehicle Body Panels including Permanently Fixed Components

|  |  |
| --- | --- |
| **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) |  | SEG  Learner 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 | Materials | 1.1, 1.2 |
| 2 | Sealants, adhesives and anti-corrosion materials | 1.3, 1.4, 1.5, 2.8, 2.9 |
| 3 | Removal and replacement of original manufacturers’ joining techniques | 2.1, 2.2. |
| 4 | Supplementary safety systems | 2.3 |
| 5 | Component storage | 2.6 |
| 6 | Panel alignments | 2.4, 2.5 |
| 7 | Fastenings, fixings and adhesives | 2.7, 2.8, 2.9, 2.10 |
| 8 | Completion of repair | 2.12, 2.13 |

|  |  |
| --- | --- |
| **Task 1 - Materials** | **Assessment Criteria 1.1, 1.2** |

|  |  |  |
| --- | --- | --- |
| **Complete the table below listing the material properties (e.g. hardness, flexibility, light weight) and where the materials are used in the vehicle construction.** | | |
| **Material** | **Properties** | **Use within vehicle construction** |
| **Steel** |  |  |
| **Aluminium** |  |  |
| **Coated steel** |  |  |
| **Thermo plastic** |  |  |
| **Thermo-setting plastic** |  |  |
| **Glass reinforced plastic (GRP)** |  |  |
| **Carbon fibre** |  |  |

|  |  |
| --- | --- |
| **Task 2 - Sealants, adhesives and anti- corrosion materials** | **Assessment Criteria 1.3, 1.4, 1.5, 2.8, 2.9** |

|  |  |
| --- | --- |
| **Complete the table below to identify the properties and safe use of the following** | |
| **Material** | **Properties and safe use** |
| **Sealant** |  |
| **Adhesive** |  |
| **Anti-corrosion material** |  |

|  |  |  |
| --- | --- | --- |
| **Complete the table below matching the body panel to the appropriate type of sealant and identify the method of application** | | |
| **Vehicle Body Panel** | **Type of Sealant** | **Method of Application** |
| **Wing** |  |  |
| **Door skin** |  |  |
| **Quarter panel** |  |  |
| **Boot floor/back panel** |  |  |
| **Sill** |  |  |

|  |  |  |
| --- | --- | --- |
| **Complete the table below matching the body panel to the appropriate type of anti-corrosion material and identify the method of application** | | |
| **Vehicle Body Panel** | **Type of Anti-Corrosion Material** | **Method of Application** |
| **Wing** |  |  |
| **Door skin** |  |  |
| **Quarter panel** |  |  |
| **Boot floor/back panel** |  |  |
| **Sill** |  |  |

|  |  |
| --- | --- |
| **Task 3 - Removal and replacement of original manufacturers’ joining techniques** | **Assessment Criteria 2.1, 2.2.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Complete the table below considering manufacturers guidelines on the removal and replacement of body panel joining techniques** | | | |
| **Manufacturers’ Joining Techniques** | **State where these would be found on a vehicle** | **Method of Removal** | **Method of Replacement** |
| **Resistance spot** |  |  |  |
| **MIG/MAG** |  |  |  |
| **MIG braze** |  |  |  |
| **Adhesive bonding** |  |  |  |
| **Mechanical fastening** |  |  |  |

|  |  |
| --- | --- |
| **Task 4 - Supplementary safety systems** | **Assessment Criteria 2.3** |

|  |  |  |
| --- | --- | --- |
| **Complete the table below identifying considerations to supplementary safety systems when replacing fixed and non-permanently fixed exterior body panels** | | |
| **Panel to be removed/replaced** | **Supplementary safety systems affected (*Yes/No*)** | **Identify the procedures involved in working with supplementary safety systems** |
| **Wing** |  |  |
| **Door skin** |  |  |
| **Front panel** |  |  |
| **Back panel** |  |  |

|  |  |
| --- | --- |
| **Task 5 - Component storage** | **Assessment Criteria 2.6** |

|  |
| --- |
| **Describe the methods and procedures for storing components and the importance of storing them correctly and in accordance with legal requirements** |
|  |

|  |  |
| --- | --- |
| **Task 6 - Panel alignments** | **Assessment Criteria 2.4, 2.5** |

|  |
| --- |
| **Describe the need for correct panel alignment** |
|  |

|  |  |
| --- | --- |
| **Panel to be Aligned** | **Describe the methods used to achieve correct panel alignment** |
| **Wing** |  |
| **Door** |  |
| **Front panel** |  |
| **Back panel** |  |
| **List the quality checks associated with panel alignment** | |
|  | |

|  |  |
| --- | --- |
| **Task 7 - Fastenings, fixings and adhesives** | **Assessment Criteria 2.7, 2.8, 2.9, 2.10** |

|  |
| --- |
| **Identify the different types of fastenings, fixings and adhesives/bonding used when removing and re-fitting vehicle body panels** |
|  |
| **Explain the reasons for the use of the different types of fastenings, fixings and adhesives/bonding used in the removal and replacement of vehicle body panels** |
|  |

|  |  |
| --- | --- |
| **Panel to be Replaced** | **Identify the procedures involved in carrying out the logical replacement of the vehicle panel, to include fastenings, fixings and adhesive/bonding techniques** |
| **Wing** |  |
| **Quarter panel** |  |

|  |
| --- |
| **Describe how panel removal and replacement affects the overall body structure (e.g. wing, sill)** |
|  |

|  |
| --- |
| **State the manufacturers’ approved methods of replacement of an exterior body panel** |
|  |

|  |  |
| --- | --- |
| **Task 8 - Completion of repair** | **Assessment Criteria 2.12, 2.13** |

|  |
| --- |
| **Identify correct conformity of vehicle systems against vehicle specification and legal requirements on completion (correct welding techniques applied to substrates)** |
|  |

|  |
| --- |
| **Explain the procedure for reporting damage caused to the vehicle during the panel replacement activities** |
|  |

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)