

Assessment Requirements

Unit BP05K – Knowledge of Removing and Replacing Exterior Motor Vehicle Body Panels Including Permanently Fixed Components

Content:

Selection and use of materials

- a. The properties and different types of materials used in the construction of vehicle bodies
- b. The properties and safe use of body component sealers, adhesives and anti-corrosion materials.
- c. The type of sealants and anti-corrosion materials to use and the manufacturer's recommended methods for their application and thickness.
- d. How to apply sealants and anti-corrosion materials.

Removing and fitting of non welded body panels

- a. How to find, interpret and use sources of information applicable to the removal and fitting of non welded body panels.
- b. How to select, check and use all the tools and equipment required to remove and fit non welded structural body panels, the different types of mechanical fixings for non welded body panels and when and why they should be used
- c. The correct procedures and processes for removing and fitting of non welded body panels.
- d. The need for correct alignment of panels and methods to achieve this:
- e. Aperture gaps
- f. Alignment of panel features
- g. Best fit of components to panels
- h. Operation of openings such as doors, tailgates, bonnets etc.
- i. The types of quality control checks that can be used to ensure correct alignment and contour of panels and operation of components to manufacturer's specification.
- j. The method of storing removed panels and the importance of storing them correctly.

Removal and replacement of welded body panels

- a. Principles of welding.
- b. How to spot and MIG weld vehicle panels.
- c. How to remove spot and MIG welded vehicle panels.
- d. How to interpret and use sources of information relevant to the removal and refitting of non-stressed body panels.
- e. The need for correct alignment of panels and the methods used to achieve this.
- f. The types of quality control checks that can be used to ensure correct alignment and contour of panels and operation of components to manufacturer's specification.
- g. How to work safely avoiding damage to the vehicle and its systems.
- h. The methods of storing removed panels and the importance of storing them correctly.
- i. The removal and replacement procedures for body panels using mechanical fastening, adhesive bonding and welding techniques.
- j. How panel removal and refitting affects the overall body structure of the vehicle. The manufacturers approved methods of working for the removal and replacement of body panels including:
resistance spot
 - a. MIG MAG
 - b. MIG braze
 - c. adhesive bonding
 - d. laser
 - e. laser stitch
 - f. mechanical fastening