IMIARBBP06

Identify and Rectify Minor Repairs to Motor Vehicle Body Panels

Overview

This standard is about repairing body panels using a variety of techniques.

Performance criteria

You must be able to:

1. identify component materials involved in the construction of the vehicle in the areas that will be worked on during repair, prior to working on the vehicle
2. use the appropriate personal protective equipment when carrying out repairs to exterior body panels
3. protect the vehicle and its contents effectively when carrying out repairs to exterior body panels
4. inspect, prepare and use all the tools and equipment required following manufacturers' instructions
5. carry out repairs to non-structural body panels following manufacturers' methods/instructions, recognised researched repair methods, your workplace procedures as well as health, safety and legal requirements
6. use specialist dent removal tools effectively to reform all damaged panels
7. complete repairs to exterior body panels so they are restored to their original contour using hand tools and filling materials effectively
8. avoid damaging other components, standards and panels on the vehicle
9. replace correctly any sealer, anti-corrosion and sound deadening materials which were removed prior to the repair
10. ensure all plastic repairs regain the strength of the original part
11. complete repaired components to an agreed condition ready for refinishing processes
12. complete all activities within the agreed timescale
13. report any anticipated delays in completion to the relevant person(s) promptly

Knowledge and understanding

You need to know and understand:

1. the health and safety legislation and workplace procedures relevant to workshop practices and personal and vehicle protection when repairing body panels
2. the vehicle work specification agreed
3. the importance of working to agreed timescales and keeping others informed of progress
4. the relationship between time, cost and profitability
5. your workplace procedures for the referral of problems
6. the importance of reporting anticipated delays to the relevant person(s) promptly
7. the requirements for protecting the vehicle and contents from damage before, during and after repair activities
8. the principles of the selection and use of hand tools for metal finishing and plastic filling repairs
9. how to select the correct tools and equipment to carry out reshaping work, including specialist dent removal tools
10. how to prepare, test, use and maintain the hand and power tools required to prepare damage and reshape damaged areas
11. the properties of component materials involved in the construction of the vehicle in the areas that will be worked on during repair
12. how to mix and apply plastic fillers
13. the properties and use of metals used to manufacture body panels
14. the properties and safe use of types of filling materials used to repair panels
15. the different types and grades of abrasive and their use
16. the techniques for identifying the type of plastics used for manufactured components
17. how to interpret and use sources of information relevant to the removal of body components
18. how to prepare the vehicle to avoid contamination
19. how to prepare damaged areas to facilitate repairs
20. how to repair plastic components using thermal and adhesive techniques
21. how to rough out and metal finish body panels
22. how to reshape filling materials to match the original panel contour
23. how to finish repairs to a suitable agreed condition for refinishing
24. how to work safely avoiding damage to the vehicle and its systems

25. the techniques for reshaping damaged body panels using hand and specialist tools
26. the procedures for reinstating anti-corrosion, sealant and sound deadening materials
27. the procedures for repairing damage to plastic components
28. the techniques and processes for plastic repairs, hot shrinking, panel pulling, metal finishing, plastic filling, indirect hammering, direct hammering spring hammering, body filing and application of body filler/stopper
29. the techniques used to regain the contours of repaired plastic components
30. methods of checking reshaped panel contours for accuracy
31. standards of finish required to enable the next stage of repairs to proceed
32. the manufacturer's approved methods of working for the preparation and repair of (non-structural) body panels
33. the pedestrian safety aspects of repairability of vehicles

Scope/range

All of the items listed below form part of this National Occupational Standard.

Range:

1. Repairs are:

a) body filling and finishing of flat areas of a panel
b) repairs to dents that are over 70 mm in diameter in body panels, including curvature panels and swage lines
c) repairs to splits and scuffs on plastic components

2. Vehicle body panels are:

a) non-permanently fixed panels
b) permanently fixed component

3. Techniques and processes are:

a) plastic repairs
b) shrinking
c) panel pulling
d) metal finishing
e) plastic filling
f) panel beating
g) indirect hammering
h) direct hammering
i) spring hammering
j) body filing
k) application of body filling/stopper

4. Tools and Equipment are:

a) Workshop equipment
b) generic hand tools
c) manufacturer's specified and specialist tools

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