

IMIVBR20

Carry out motor vehicle body resistance spot welding operations



Overview

This standard is about joining materials correctly and effectively using resistance spot welding techniques.

Performance criteria

You must be able to:

- P1 use the appropriate **personal protective equipment (PPE)** and check it is fit for purpose before carrying out resistance spot welding operations
- P2 protect the vehicle, its systems and its contents effectively when carrying out resistance spot welding operations
- P3 prepare material and align to enable suitable joint to be achieved, ensuring mating flanges are treated following manufacturers' procedures before joining
- P4 select, set up and use the correct **tools and equipment** in order to correctly carry out resistance spot welding operations
- P5 ensure that the **tools, equipment** and **PPE** you require are in a safe working condition and are correct for the joining operation that you are to be completing
- P6 set up your **equipment** to carry out spot welding operations checking:
 - P6.1 suitability of the air supply and pressure
 - P6.2 the current supply
 - P6.3 the consumables are correct
 - P6.4 the suitability/serviceability of electrodes and tips
- P7 carry out spot welding operations following:
 - P7.1 recognised researched repair methods
 - P7.2 test procedures in accordance with British Standards (peel/shear/nugget size)
 - P7.3 manufacturer's processes, methods and procedures
 - P7.4 your workplace processes, methods and procedures
 - P7.5 health, safety and legal requirements
- P8 avoid damaging other components, standards, panels and surfaces on the vehicle and the surrounding work area
- P9 recognise when your weld is not forming correctly and what action needs to be taken
- P10 inspect and assess resistance spot weld quality in accordance to British Standards, including weld pitch, indentation/weld profile, heat zone, nugget size and peel and shear test
- P11 check integrity of weld and record the type of weld achieved on the appropriate paper work. Test pieces must be recorded and stored
- P12 dress and protect the repaired area to inhibit corrosion where applicable
- P13 clean and store **PPE** and **equipment** in appropriate manner
- P14 promptly report any additional faults you notice during the course of your work to the relevant person(s)
- P15 promptly report any delays in completing your work to the relevant person(s)
- P16 carry out resistance spot welding operations within the agreed timescale
- P17 complete work records accurately, in the format required and promptly pass them to the relevant person(s)

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Knowledge and understanding

You need to know and understand: