

World Skills UK – Automotive Body Repair Technical Handbook



INSTITUTE OF THE
MOTOR INDUSTRY

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WorldSkills UK 2025 – Automotive Body Repair

Technical Handbook

Produced by the Institute of the Motor Industry (IMI)

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1. Introduction

This handbook has been produced by the Institute of the Motor Industry (IMI) to support competitors, training providers, and judges participating in the WorldSkills UK Automotive Body Repair competition.

It is designed to:

- Describe the structure and requirements of the competition
- Define the technical tasks undertaken at National Qualifiers and National Finals
- Outline assessment and marking criteria
- Provide guidance for preparation and skills development
- Highlight career pathways and industry standards

This handbook applies to all stages of the WorldSkills UK Automotive Body Repair competition.

2. Competition Overview

Automotive Body Repair is a key discipline within the automotive industry, covering accident repair and structural restoration of vehicle body systems.

Competitors will demonstrate competence in:

- Structural and non-structural panel replacement
- Automotive welding, brazing, bonding, and riveting
- Vehicle body measurement and alignment
- Metal finishing and filler repair techniques
- Safe and efficient use of tools, equipment, and materials

Competitors are assessed on technical accuracy, efficiency, adherence to industry procedures, and quality of finish under time constraints.

3. Career Pathway

3.1 Role of a Panel Technician

Panel technicians (also known as body repair technicians) are responsible for repairing or replacing damaged vehicle body panels following collision damage. This may include structural repairs, cosmetic repairs, and alignment work.

Key responsibilities include:

- Interpreting repair data and manufacturer procedures
- Repairing or replacing panels using approved methods
- Carrying out welding, bonding, and riveting operations
- Measuring and correcting vehicle body alignment
- Maintaining health and safety standards

3.2 Qualifications Required

- Level 2 Vehicle Body and Paint Operations
- Level 3 Vehicle Body and Paint Operations (Body Repair)
- N/SVQs or VRQs in Automotive Body Repair

3.3 Working Hours and Remuneration (UK estimates)

- Apprentice / Trainee: £7,000–£13,000 per annum
- Qualified Panel Technician: Approx. £31,200 per annum / £16 per hour
- Experienced Technician: Up to £40,000 per annum

Typical working hours are 8:00–17:00, Monday to Friday, with overtime opportunities.

3.4 Career Progression

- Senior Panel Technician
- Vehicle Estimator / Senior Vehicle Damage Assessor (VDA)
- Bodyshop Manager

4. Registration and Pre-Competition Activity

4.1 Registration Process

1. Complete online registration and accept competition terms and conditions.
2. Receive access to the Entry Stage Online Test via email.

4.2 Entry Stage Online Test

- Mandatory for all registered competitors
- Determines eligibility for National Qualifiers
- Results communicated via email

4.3 Pre-Competition Preparation

- Review current industry repair methods and manufacturer procedures
- Practise competition-style tasks under timed conditions
- Access WorldSkills UK pre-competition resources

5. Competition Structure

5.1 National Qualifiers – Practical

Competitors rotate through five practical tasks designed to reflect Level 3 Body Repair standards.

Assessment Weighting:

- Welding and Brazing – 30%
- Part Panel Replacement – 30%
- Bonding and Riveting – 15%
- Metal Finish Repair – 15%
- Filler Repair – 10%

Top six highest-scoring competitors across all qualifier events progress to the National Final.

5.2 National Qualifiers – Digital

The Digital National Qualifier assesses technical knowledge through scenario-based questions aligned to practical tasks.

Assessment areas mirror the practical competition and use the same weighting structure.

5.3 National Final

The National Final consists of advanced tasks reflecting complex repair procedures, structural alignment, and precision workmanship. Tasks are more technically demanding than those at qualifier level.

6. Task Specifications

6.1 Practical Tasks

- Part Panel Replacement
- Structural Panel Replacement
- Welding, Brazing, Bonding, and Riveting
- Vehicle Body Measurement and Alignment
- Metal Finishing and Filler Repair
- Plastic Welding Repair

7. Marking and Assessment

7.1 Technical Competencies

- Accuracy and quality of repair
- Correct application of industry procedures
- Effective use of tools and equipment
- Measurement and alignment accuracy

7.2 Professional Attributes

- Time management and efficiency
- Planning and problem-solving
- Communication and organisation
- Compliance with health and safety requirements

7.3 Assessment Moderation

- Judges are industry experts trained in assessment procedures
- All marking is objective and independently moderated
- Results are quality assured prior to confirmation

8. Technical Master Classes & Digital Resources

Finalists may be invited to attend IMI-led technical master classes, subject to funding.

Training may include:

- Advanced welding and brazing techniques
- Vehicle body alignment systems
- Dent repair and metal finishing
- Manufacturer-approved repair processes

9. Judges' Guidance

Judges assess both technical competence and excellence, considering:

- Quality of workmanship
- Safe working practices

- Efficiency under pressure
- Adherence to task instructions

10. Competition Rules

- Competitors must arrive on time for all competition activities
- WorldSkills UK clothing must be worn as instructed
- PPE must be always worn
- Competitors must follow judge and organiser instructions
- Venue rules and health and safety regulations must be complied with

11. Beyond WorldSkills UK

National Finals form part of the pathway to WorldSkills International and EuroSkills competitions.

Eligible competitors may be invited to join Team UK training programmes or the Skills Champions initiative.

12. Appendices

12.1 Glossary and Abbreviations

- PPE – Personal Protective Equipment
- OEM – Original Equipment Manufacturer
- VDA – Vehicle Damage Assessor

12.2 PPE and Tools Checklists

- PPE: Safety footwear, gloves, eye protection, overalls
- Tools: Welding equipment, measuring systems, hand and power tools

12.3 Contacts and Useful Links

- Michael Massey CAE FIMI, Skills Competition Manager: mmassey@theimi.org.uk
- Emma Carrigy MIMI, Head of Research, Careers & Inclusion: emmac@theimi.org.uk
- [IMI Skills Competitions](#)
- [WorldSkills UK Resources](#)