Overview

This standard is about the identification and realignment of vehicle distortion using body alignment jigs.
Performance criteria

You must be able to:

1. use the appropriate personal protective equipment when carrying out all rectification activities
2. protect the vehicle, its contents and systems effectively when carrying out all rectification activities
3. support vehicle misalignment rectification activities by reviewing vehicle data from manufacturers and technical data specific to the vehicle
4. prepare, test and setup all the tools and equipment required, following equipment manufacturers’ instructions, prior to use
5. load and secure the vehicle to the body jig correctly following the equipment manufacturer's instructions and health and safety requirements
6. establish the extent of the vehicle misalignment accurately and completely
7. align and anchor areas adjacent to the damage correctly, in a way that prevents further damage to the vehicle
8. attach the pulling system securely to the damaged components and operate it correctly to achieve the realignment required
9. operate the pulling system in a way that minimises the risk of injury to yourself and others
10. ensure your rectification activities restore the vehicle to the correct specification and tolerances
11. complete all rectification activities within the agreed timescale
12. report any anticipated delays in completion to the relevant person(s) promptly
Knowledge and understanding

You need to know and understand:

1. the safety requirements specific to vehicle misalignment rectification
2. the health and safety legislation and workplace procedures relevant to workshop practices and personal and vehicle protection
3. the vehicle work specification agreed
4. the requirements of manufacturers’ warranty agreements.
5. your workplace procedures for the referral of problems, reporting of delays to the completion of the work and personal protection
6. the importance of working to agreed timescales and keeping others informed of progress
7. the relationship between time, cost and profitability
8. your workplace procedures for the referral of problems
9. your workplace requirements for keeping records
10. the importance of reporting anticipated delays to the relevant person(s) promptly
11. the constraints of the type of materials used in vehicle construction places on the choice of repair equipment
12. how to prepare, test and setup all equipment required for misalignment rectification
13. how to install vehicles on misalignment rectification equipment, including the use of lifting equipment
14. how to use rectification equipment including hand and powered tools, safety chains (safety measure), hydraulic push and pull, and body alignment jigs (bracket system and/or measuring system)
15. the correct use of clamps, restraints and supports to minimise additional damage during repair
16. the principles of chassis frame and monocoque vehicle construction
17. the principles of damage assessment and identification of direct and indirect damage
18. the function of the pulling system and the criteria for selection – vector, pull arm, and tower systems, both floor mounted and bench mounted
19. how to use geometric principles of alignment in the absence of a data sheet
20. the properties of vehicle body construction materials
21. how to find, interpret and use sources of information relevant to the rectification of vehicle misalignment
22. how to establish the extent of misalignment using measuring equipment and/or measuring system
23. how to realign vehicles to the manufacturer’s original specification
24. how to work safely avoiding damage to vehicles, personal injury and injury to colleagues
25. the importance of following manufacturers’ and/or approved research repair methods (including use of materials and equipment)
26. the consequences of failing to follow manufacturers’ and/or research repair methods or instructions and data sheets
Identify and Rectify Motor Vehicle Body Misalignment

**Scope/range**

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

**Range:**

1. Rectification activities are:

   a) visual examination
   b) setting up
   c) measurement in conjunction with alignment measuring equipment
   d) realignment using pulling equipment

3. Tools and Equipment are:

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