IMIAG13

Diagnose and rectify technical problems in automotive glazing operations

Overview

This standard covers the diagnosis and rectification of technical problems, i.e. those problems that require a high degree of problem solving. Often the location of a technical problem is not immediately apparent, and the candidate will have to investigate the location of the problem and identify its nature. Once the location and nature of the fault is identified, it is necessary to identify what is actually causing it: this might be a component, technologies, or faulty materials, or even faulty design. The candidate will then have to work through a number of solutions before determining the right one.

Performance criteria

You must be able to:

P1 access all relevant information on the technical problem
P2 select the appropriate action to identify the technical problem
P3 investigate thoroughly the indications of a technical problem and identify its possible location
P4 isolate the technical problem to determine its actual location
P5 seek alternative solutions where technical problems have not been located, and suggest them to the appropriate people
P6 inform the relevant people of the consequences of technical problems being located in difficult locations
P7 investigate thoroughly the technical problem and identify its possible causes using appropriate diagnostic methods and technical information
P8 evaluate the likelihood of each possible cause being responsible for the technical problem, and prioritise work accordingly
P9 diagnose correctly the causes of the technical problem
P10 refer the technical problem to a specialist when the cause cannot be identified
P11 rectify the technical problem using appropriate equipment, materials, and work procedures
P12 ensure that the rectification meets all specifications and requirements
P13 verify that the technical problem has been rectified and monitor it over a suitable period
P14 inform the relevant people that the technical problem has been rectified or referred to a specialist
P15 record information on the rectification in the appropriate information systems

Knowledge and understanding

You need to know and understand:

Technical problems

K1 the types of technical problem that could occur
K2 what actions are required to identify different types of technical problem
K3 the likely locations of different technical problems
K4 what locations are difficult or non-accessible
K5 when it is advisable to escalate attempts to find a technical problem, and what other actions could be pursued
K6 the most appropriate diagnostic methods and equipment for identifying the causes of technical problems, including dashboard warning lights
K7 what diagnostic methods should be used for different types of technical problems
K8 the possible causes of technical problems
K9 the types of problems that can occur with the diagnostic process, and the standard operating procedures for dealing with them

Rectification work

K10 what work has to be done to meet different requirements
K11 what equipment, materials, and work procedures should be used for different jobs
K12 how similar work has turned out previously
K13 the types of problems that can occur with the rectification work and the standard operating procedures for dealing with them

Information recording

K14 what information systems should be used
K15 why it is important to use the information systems

Glossary

This section contains examples and explanations of some of the terms used but does not form part of the standard.

Technologies:

- Washers and wipers
- Sensors
- ADAS
- Heated glass
- Head up displays
- Cameras
- Radars
- LIDARs
- Locking systems
- Speakers
- Air bags
- Winding mechanisms
- Locks
- Antenna

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