

Overview

This standard identifies the competences you need to conduct static tests on vehicles, in accordance with approved procedures, and includes the testing and monitoring of both conventional and all-wheel drive vehicles. You will be required to carry out all necessary preparations to the vehicle in readiness for the tests; these will include ensuring that the vehicle is safe, and that preparatory checks on tyres, fluids, and electrics are completed correctly. You will be expected to carry out the tests in accordance with the appropriate schedule and monitoring procedures. You will need to analyse the results, and to complete all relevant test documentation accurately and legibly.

Your responsibilities will require you to comply with organisational policy and procedures for the tests undertaken, and to report any problems with the testing activities or with the equipment used that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be expected to work with a minimum of supervision, taking personal responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide a good understanding of your work, and will provide an informed approach to applying the appropriate vehicle testing procedures. You will understand the specific test schedule to be followed, the vehicle characteristics expected during the test, and what various vehicle responses mean, in adequate depth to provide a sound basis for carrying out the tests to the required specification.

You will understand the safety precautions required when carrying out the testing activities. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

Performance criteria

You must be able to:

1. work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
2. follow the appropriate procedures for set up and use of tools and equipment to conduct the required tests
3. conduct the tests using the correct procedures and within agreed timescales
4. record the results of the tests in the appropriate format
5. review and analyse the test results and carry out further tests if necessary
6. ensure that work records are completed, stored securely and available to others as per organisational requirements
7. leave the work area in a safe condition on completion of the activities, as per organisational and legal requirements

Knowledge and understanding

You need to know and understand:

1. the specific safety precautions to be taken whilst carrying out the activities (including any specific legislation, regulations or codes of practice relating to the activities, equipment or materials)
2. the health and safety requirements of the work area and the activities, and the responsibility these requirements place on you
3. the hazards associated with the activities, and how to minimise them and reduce risks
4. the personal protective equipment and clothing (PPE) to be worn during the activities
5. how to obtain the required test schedules and specifications for the vehicle, and how to check their currency and validity
6. the procedure to be adopted in the event of breakdown during the test
7. methods and techniques for fitting test equipment
8. how to read and interpret the specifications, manufacturers' manuals, and from whom you can seek assistance if you have problems or issues regarding the test schedules or specifications
9. the methods and procedures to be used to carry out the various tests
10. how to record the results of each individual test and the documentation/format that must be used
11. from whom to seek authorisation if you need to alter or change the test procedures
12. how to analyse the test results and make valid decisions about the acceptability of the vehicle
13. the procedure and methods to make minor adjustments during the test
14. potential problems that can occur with testing activities and how they can be overcome
15. the problems that may cause errors or discrepancies in/with the test results and how to avoid these
16. any environmental controls required relating to the testing
17. the extent of your own responsibility and to whom you should report if you have problems that you cannot resolve
18. how to access, use and maintain information to comply with organisational

requirements and legislation

Scope/range related to performance criteria

1.

Carry out all of the following during the testing activities:

1.1 obtain and use the appropriate documentation (such as job instructions, vehicle documentation, test schedules, test procedures, quality control documentation)

1.2 adhere to procedures or systems in place for risk assessment, hazardous substances, personal protective equipment and other relevant safety regulations and procedures to realise a safe system of work

1.3 provide and maintain safe access and working arrangements for the test area

1.4 obtain the correct tools and equipment for the testing activity and check that they are in a safe, tested and usable condition

1.5 follow safe practice/approved testing techniques and procedures at all times

1.6 return all tools and equipment to the correct location on completion of the testing activities

1.7 leave the work area in a safe and appropriate condition on completion of the activities

2.

Prepare the vehicle for testing by carrying out all of the following, as applicable to the vehicle type:

2.1 fit slave wheels to the vehicle (where appropriate), and check for correct tyre tread depth and pressure

2.2 check that oil, water and other fluid levels are correct, and that there are no leaks

2.3 check that all warning devices are working correctly

2.4 fit monitoring or other test equipment to the vehicle (where appropriate)

2.5 ensure that appropriate safety equipment is fitted to the vehicle, and all driver safety equipment is available

2.6 ensure that test equipment is calibrated and functions correctly

2.7 ensure that seat fouling protectors are fitted (where appropriate)

3.

Conduct static tests on one of the following types of vehicle:

3.1 front wheel drive

3.2 rear wheel drive

3.3 all wheel drive

4.

Conduct the vehicle tests using one of the following:

4.1 rolling road

4.2 computer-controlled static test

4.3 computer-controlled rolling road

5.

Conducting and monitoring static tests on vehicles

Conduct static tests on the vehicle to a specific test schedule, to include nine of the following:

- 5.1 driving the vehicle for the specified time
- 5.2 carrying out a steering geometry check
- 5.3 driving vehicle at specified speeds through gears
- 5.4 carrying out a suspension check
- 5.5 carrying out braking tests
- 5.6 carrying out noise and vibration check
- 5.7 checking and monitoring exhaust emissions
- 5.8 carrying out instrumentation check
- 5.9 checking power train through all gears
- 5.10 carrying out electrical system check
- 5.11 carrying out tests on specific components
- 5.12 carrying out entertainment system check
- 5.13 carrying out engine checks for hot and cold starting
- 5.14 checking automatic gearbox through rapid acceleration and parking
- 5.15 carrying out lighting positional/beam setting checks
- 5.16 carrying out a complete vehicle function test
- 5.17 carrying out other specific tests

6.

Review and analyse the results of the static test, using two of the following:

- 6.1 data sheets
- 6.2 vehicle history sheet
- 6.3 fault records
- 6.4 operation sheet
- 6.5 manufacturer's specifications

7.

Ensure tests comply with one of the following standards:

- 7.1 military or aviation standards
- 7.2 customer standards and requirements
- 7.3 international standards
- 7.4 company standards and procedures

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