Assist workshop operations by providing technical support in large goods and passenger vehicle environments



Overview

This standard is about providing a range of technical support to other workshop Deleted: NOS colleagues within a <u>large goods and passenger</u> vehicle environment. It includes <u>Deleted: commercial</u> ensuring technical information is up to date and giving technical advice, instruction and briefings to colleagues.



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## Performance criteria

You must be able t	to: P1	ensure vehicle technical information is up to date and accessible to workshop
		staff
	P2	check colleagues have the correct technical resources to carry out their work Deleted: staff
ı	P3	identify any additional resources required correctly and promptly
	P4	report any problems affecting the operation of the workshop to your manager
		promptly

- P6 provide colleagues with clear instruction on:
  - P6.1 product updates
  - P6.2 technical tasks
  - P6.3 what the results should be
  - P6.4 how they should perform tasks
  - P6.5 the standard that must be achieved
- P7 deliver technical instruction and demonstrations in a manner and at a speed that is appropriate to the individual concerned

respond to requests for technical help and advice promptly and positively

- P8 give on-going technical support and advice to colleagues using coaching and mentoring skills where appropriate
- P9 give support and advice which is technically accurate and in line with manufacturer's instructions and your organisation's requirements
- P10 give colleagues time to consider your response and give further explanation when appropriate, checking they have fully understood
- P11 identify and correct mistakes in a way that supports your colleague's self confidence and praise them when they perform tasks correctly
- P12 check the work of colleagues at regular intervals and take prompt action to resolve problems
- P13 suggest possible methods for improving the work of colleagues to your manager, when necessary
- P14 carry out your checks in a cost effective and efficient manner that is not detrimental to the smooth running of the workshop

**Deleted:** <#>choose the most effective situation for giving support and advice to colleagues¶

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Knowledge and understanding

Legislative and organisational requirements and procedures



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You need to know and understand:

- K1 the legislation and workplace procedures relevant to
  - K1.1 health and safety
  - K1.2 the environment (including waste disposal)
  - K1.3 appropriate personal and vehicle protective equipment
- K2 legal requirements relating to the vehicle (including road safety requirements)
- K3 the implications on an Operators Licence of not carrying out repairs correctly
- K4 your workplace procedures for
  - K4.1 recording fault location and correction activities
  - K4.2 reporting the results of tests
  - K4.3 the referral of problems
  - K4.4 reporting delays to the completion of work
  - K4.5 gaining up to date technical information and repair methods
- K5 the importance of working to recognised diagnostic procedures and processes and obtaining the correct information for diagnostic activities to proceed and how to formulate and construct your own diagnostic procedures and processes in order for diagnostic activities to proceed
- K6 the importance of documenting diagnostic and rectification information
- K7 the importance of working to agreed timescales and keeping others informed of progress and delays
- K8 the relationship between time, costs and profitability

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You need to know and understand:

#### **Electrical and electronic principles**

- K9 the hazards associated with working on or near high voltage electrical vehicle Deleted: ¶

  Components

  Deleted: energy
- K10 electrical and electronic principles including types of sensors and actuators, their application and operation
- K11 how electrical and electronic vehicle systems operate, including electrical component function, electrical inputs, outputs, voltages and oscilloscope patterns, digital and fibre optics principles
- K12 the interaction between electrical, electronic, mechanical and hydraulic components and systems within a vehicle, including multiplexing
- K13 electrical symbols, units and terms
- K14 electrical safety procedures

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You need to know	Use of diagnostic and rectification equipment
and understand:	K15 how to prepare and check the accuracy of diagnostic testing equipment Deleted: ¶
	K16 how to use diagnostic and rectification equipment for mechanical, electrical, Deleted: test
	pneumatic, hydraulic and fluid systems, specialist repair tools and general
	workshop equipment Deleted: ¶
You need to know	Vehicle faults, their diagnosis and correction
and understand:	K17 how vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid Deleted: ¶
	systems are constructed, dismantled, reassembled and operate
	K18 the types and causes of vehicle mechanical, electrical, electronic, pneumatic,
	hydraulic and fluid system, component and unit faults and failures
	K19 vehicle mechanical, electrical, electronic, pneumatic, hydraulic and fluid
	component and unit replacement procedures, the circumstances which will
	necessitate replacement and other possible courses of action
	K20 how to find, interpret and use sources of information on vehicle mechanical,
	electrical, electronic, pneumatic, hydraulic and fluid system specifications,
	diagnostic test procedures, repair procedures and legal requirements
	K21 how to select the most appropriate diagnostic testing method for the symptoms
	presented
	K22 how to carry out systematic diagnostic testing of vehicle mechanical, electrical,
	electronic, pneumatic, hydraulic and fluid systems
	K23 how to interpret, evaluate and analyse test results and vehicle data in order to
	identify the location and cause of vehicle system faults
	K24 your workplace procedure and policy for
	K24.1 work carried out under warranty
	K24.2 liaising with manufacturers and outside agencies
	K25 the relationship between test methodology and the faults rectified – the use ( Deleted: repaired
	appropriate testing methods
	K26 how to make cost effective recommendations for rectification
	K27 the importance of inspecting the vehicle following any repairs
You need to know	Personal Skills  Deleted: ¶
and understand:	K28 how to recognise when a colleague needs suport Deleted: ¶
	K29 how to give straightforward presentations on technical matters
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- K30 how to file and store technical information
- K31 how to instruct colleagues and demonstrate tasks clearly and correctly, using coaching and mentoring kills
- K32 how to conduct effective checks of your colleague's work
- K33 how to choose the best action to take when work is not in line with requirements
- K34 how to discuss colleague's work with them in a way that will encourage them to be positive and not lead to conflict
- K35 how to give advice and guidance in a way that is appropriate to the colleague you are supporting
- K36 how to recognise a training need
- K37 what might happen if you undermine colleague's self confidence when correcting mistakes
- K38 the importance of liaising with your manager when evaluating others' work and giving feedback
- K39 the importance of continuous development and learning

**Deleted:** Additional information¶

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Scope/range

Information, Advice and Guidance may be about any of the following: Deleted: Additional information

- 1.1. mechanical fault finding
- 1.2. electrical fault finding
- electronic fault finding 1.3.
- 1.4. hydraulic and fluid fault finding
- 1.5. pneumatic fault finding
- 1.6. customer handling
- 1.7. road testing
- 1.8. time
- 1.9. tools
- equipment 1.10.
- 1.11. materials
- 1.12. technical information

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Additional This section contains examples and explanations of some of the terms used but

<u>information</u> <u>does not form part of the standard.</u>

Glossary Large Goods and Passenger Vehicles:

These are medium and large goods vehicles, buses and coaches of 3500kgs

gross vehicle mass (GVM) and above.

Methods for improving the work of colleagues:

Examples include further training, on-the-job coaching, giving people more

appropriate responsibilities.

**Problems:** 

Examples include equipment, tool and material shortfalls and faults; requirements for new resources; lack of technical information; staffing or workload problems;

training needs etc.

Support and advice:

Examples include demonstrations, instruction and briefings

**Technical information:** 

This could be hard copy, electronic information or verbal advice.

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Developed by	IMI	
Version number	3,	Deleted: 2
Date approved	2021	Deleted: December 2013
Indicative review	2024	Deleted: December 2016
date		
- Validity	<u>Under review</u>	Deleted: Current
Status	Original	
Originating organisation	IMI Ltd	
Original URN	MRHV15	
Relevant	Engineering; Vehicle Trades; Heavy Vehicle Diagnostic Technician	
occupations	(Automotive); Heavy Vehicle Master Technician (Automotive); Heavy Vehicle Fleet/Service Manager (Automotive); Bus and Coach	
	Mechanic; Bus and Coach Mechalec;	
Suite	Maintenance and Repair <u>Large Goods and Passenger</u> Vehicle	Deleted: -
		Deleted: Heavy
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Key words	Assist; workshop; operations; technical; support; <u>large goods;</u>	(======================================