

**SKILLS FRAMEWORK FOR PUBLIC TRANSPORT
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

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| TSC Category | Automotive Maintenance | | | | | |
| TSC | Bus Engine System Maintenance | | | | | |
| TSC Description | Implement preventive and corrective maintenance of bus engine system | | | | | |
| TSC Proficiency Description | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 | Level 6 |
| | PTP-AMT-1006-1.1 | PTP-AMT-2006-1.1 | PTP-AMT-3006-1.1 | PTP-AMT-4006-1.1 | | |
| | Carry out scheduled preventive maintenance and serviceability checks on bus engine system | Conduct corrective maintenance on bus engine system | Troubleshoot faulty bus engine system to locate faults and recommend rectification methods | Diagnose root causes of recurring faults on bus engine system to resolve systemic failure issues | | |
| Knowledge | <ul style="list-style-type: none"> System layout and operating functions of bus engine system Types of components and parts of bus engine system Procedures for preventive maintenance on bus engine system in accordance to organisational procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical manuals Procedures for inspection and serviceability checks on bus engine system Types of maintenance supplies, spare parts and consumables for bus engine system maintenance Types and safe usage of tools and equipment for performing preventive maintenance work Types and usage of Personal Protective Equipment (PPE) | <ul style="list-style-type: none"> System layout and operating functions of bus engine system Types of components and parts of bus engine system Types of faults for bus engine system Procedures and methods to disassemble, repair and/or replace faulty bus engine components Functional test procedures on bus engine system Types of maintenance supplies, spare parts and consumables for bus engine system maintenance Types and safe usage of tools and equipment for performing corrective maintenance work Types and usage of Personal Protective Equipment (PPE) Organisational maintenance documentation and fault reporting procedures | <ul style="list-style-type: none"> Operating principles of bus engine system Types of troubleshooting and rectification techniques for bus engine system maintenance Types of fault identification methods for bus engine system Signs of defective or degraded components within bus engine system Safety guidelines on usage of tools and equipment to troubleshoot bus engine system | <ul style="list-style-type: none"> Operating principles of bus engine system Types and causes of systemic failures on bus engine system Types of failure investigation and prevention methods Types of diagnostic equipment and tools Diagnostic procedures for bus engine system and components Organisational maintenance procedures, Work Instructions (WI) and/or Original Equipment Manufacturer (OEM) technical recommendations Methods to develop maintenance WI | | |

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| | <ul style="list-style-type: none"> Organisational maintenance documentation and fault reporting procedures | | | | | |
| Abilities | <ul style="list-style-type: none"> Prepare tools, equipment, materials and checklists required for preventive maintenance tasks Carry out scheduled preventive maintenance tasks on bus engine system according to organisation procedures, WI and/or OEM technical manuals Inspect the condition and serviceability of bus engine system Follow organisation procedures, WI and/or OEM technical manual instructions on safety guidelines for tools and equipment during maintenance work Document maintenance activities performed on bus engine system Report occurrences of faults and defects identified | <ul style="list-style-type: none"> Interpret work orders to determine corrective maintenance tasks Coordinate the preparation of resources required for corrective maintenance activities Recognise defective components and parts on bus engine system for corrective maintenance work Disassemble bus engine system for corrective maintenance Carry out repair and/or replacement of faulty components Reassemble and reinstate bus engine system Perform functionality tests on bus engine system Apply operating and safety measures during maintenance work Collate and document maintenance activities performed on bus engine system | <ul style="list-style-type: none"> Implement troubleshooting procedures to investigate causes of faults in bus engine system Recommend corrective actions to defects identified on bus engine system Implement procedures on safe usage of tools and equipment during maintenance work Analyse maintenance activities documented for bus engine system to identify maintenance workflow improvements | <ul style="list-style-type: none"> Establish failure investigation and specify functional testing requirements Perform fault analysis to address systemic failures on bus engine system Review data gathered from diagnostic procedures to recommend rectification solutions for recurring faults identified on bus engine system Analyse performance of bus engine system post maintenance and repair activities to evaluate effectiveness of recommended rectification solutions Review corrective and preventive maintenance regimes of bus engine system to ascertain effectiveness of maintenance procedures Propose new and/or enhanced bus engine system maintenance WI in reference to OEM technical recommendations | | |