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| Title | **Maintain suspension and steering systems** | | |
| Level | **2** | **Credits** | **8** |

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| Purpose | This Competency Standard identifies the competencies required to perform service of ignition system of vehicle, at workplace by Automobile Mechanic, in accordance with the organization’s approved guidelines and procedures. You will be expected to diagnose ignition system problems of vehicle, service distributor and C.B point of ignition system and Service spark plugs & wires of vehicle, service emission control system of vehicle and perform ignition road test of vehicle, at workplace. Your underpinning knowledge regarding service of ignition system of a vehicle will be sufficient to provide you the basis for your work. |

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| Classification ISCED | 0716 Motor vehicles, ships and aircraft |

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| Available grade | Competent / Not yet competent |

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| Modification history | N/A |

| **Unit of Competency** | **Performance Criteria** | **Knowledge & Understanding** | **Tools & Equipment** |
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| G1. Diagnose  steering and/or  suspension problems of vehicle | You will be able to:  P1: Arrange tools and equipment required to diagnose steering/suspension problems  P2. Follow the instructions of repair manual to diagnose steering/suspension problems  P3. Inspect the following components of steering/suspension system according to repair manual:   * Steering rack * Steering box * Steering column * Intermediate shaft (cross) * Electronic control unit (ECU) of power steering * Electric power motor (EPS) * Power steering pump * Shock absorbers * Lower control arms * Upper control arms * Ball joints * Rack end set * Tie rod end set * Stabilizer bar * Z links * Coil springs * Leaf springs * Shock mounting   P4. Follow safety precautions at workplace | You will be able to:  K1. Explain the usage of tools and equipment for diagnosing steering/suspension problems  K2. Explain the usage of special service tools (SSTs) for diagnosing steering/suspension problems  K3. Read and interpret repair manual  K4. describe the types of steering  K5. Describe the function of scanner for electric power steering  K6. Describe the function of power steering pump  K6. Describe the role of stabilizer bar  K7. Describe the geometry of suspension system of vehicle  K8. Describe the function of shock absorber  K9. Describe the turning radius of steering system  K10. Describe the function of leaf spring  K11. Explain the safety precautions regarding personal health and workplace | Jack, safety stand, Wheel aligner, wheel balancer, hammers, ball joint opener, tire lever, wheel spanner, spanner set, SSTs, air pressure gauge, sockets, screw drivers, lift, PPE |
| G2. Service suspension  components  of vehicle | You will be able to:  P1: Arrange tools and equipment required to service suspension components  P2. Follow the instructions of repair manual to service suspension components  P3. Service the following components of suspension system according to repair manual:   * Hub knuckle * Wheel hub * hub stud * Springs * Shock absorber * Sway bar * Z link * Control arm * Ball joints   P4. Follow safety precautions at workplace | You will be able to:  K1. Explain the usage of tools and equipment for servicing suspension components  K2. Explain the usage of special service tools (SSTs) for service suspension components  K3. Read and interpret repair manual  K4. Explain the types of suspension system  K5. Describe the function of bushes  K6. Describe the function of wheel hub bearing  K7. Identify the noises of wheel bearings  K8. Describe the types and function of shock absorber  K9. Describe the types and function of springs  K10. Describe the function stabilizer bar  K11. Describe the function of ball joints and control arms  K12. Explain the safety precautions regarding personal health and workplace | Jack, safety stand, hammers, ball joint opener, tire lever, wheel spanner, spanner set, scanner, SSTs, sockets, screw drivers, lift, bench vice, PPE |
| G3. Service steering system of vehicle | You will be able to:  P1: Arrange tools and equipment required to service steering system of vehicle  P2. Follow the instructions of repair manual to service steering system of vehicle  P3. Service the following components of steering system according to repair manual:   * Steering rack * Steering box * Steering column * Intermediate shaft (cross) * Electronic control unit (ECU) of power steering * Electric power steering (EPS) * Power steering pump   P3. Follow safety precautions at workplace | You will be able to:  K1. Explain the usage of tools and equipment for servicing steering system of vehicle  K2. Explain the usage of special service tools (SSTs) for servicing steering system of vehicle  K3. Read and interpret repair manual  K4. describe the types of steering  K5. Describe the function of scanner for electric power steering  K6. Describe the function of power steering pump  K7. Describe the geometry of steering system of vehicle  K8. Describe the turning radius of steering system  K9. Describe the importance of power steering fluid  K10. Explain the safety precautions regarding personal health and workplace | Jack, safety stand, Wheel aligner, wheel balancer, hammers, wheel spanner, spanner set, SSTs, air pressure gauge, sockets, screw drivers, lift, PPE |