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| Title | **Maintain drive line systems** |
| Level | **2** | **Credits** | **7** |

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| Purpose | This Competency Standard identifies the competencies required to maintain drive line systems by automobile mechanic in accordance with the organization’s approved guidelines and procedures. You will be expected to Service manual clutch systems and automatic transmissions of vehicle, at workplace. Your underpinning knowledge regarding maintenance of drive line systems 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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| H1. Service manual clutch systems of vehicle  | You will be able to:P1: Arrange tools and equipment required to service manual clutch system of vehicle P2. Follow the instructions of repair manual to service manual clutch system of vehicle P3. Service the following components of manual clutch system according to repair manual:* Clutch master cylinder (CMC)
* Clutch plate
* Pressure plate
* Clutch release bearing
* Clutch release fork
* Fly wheel
* Clutch cable
* Gear shifting lever and linkage
* Vehicle speed sensor
* Synchronizer
* Differential
* Drive shafts
* Gear oil
* Gear box seals

P3. Follow safety precautions at workplace | You will be able to:K1. Explain the usage of tools and equipment for servicing manual clutch system of vehicleK2. Explain the usage of special service tools (SSTs) for servicing manual clutch system of vehicleK3. Read and interpret repair manualK4. Describe the function of clutch master cylinder and clutch wire K6. Describe the mechanism of clutch set K7. Describe the function of clutch bearing K8. Describe the function of differential K9. Describe the grading of fluid used in clutch systemK10. Explain how to check the efficiency of clutch plate K11. Explain the safety precautions regarding personal health & workplace | Jack, safety stand, lift, spanner set, socket set, oil gun, SSTs, repair manual, screw drivers, hammers, lock pliers, PPE |
| H2. Service automatic Transmission of vehicle | You will be able to:P1: Arrange tools and equipment required to service automatic transmission of vehicle P2. Follow the instructions of repair manual to service automatic transmission of vehicle P3. Service the following components of automatic transmission according to repair manual:* Torque convertor
* Gear shifting lever and linkage
* Vehicle speed sensor
* Gear shifting Solonide valve
* Differential
* Valve body
* Drive shafts
* Automatic transmission fluid (ATF)
* Gear box seals
* Continuous variable transmission (CVT)
* Electronic transmission (ECT)

P3. Follow safety precautions at workplace  | You will be able to:K1. Explain the usage of tools and equipment for servicing automatic transmission of vehicleK2. Explain the usage of special service tools (SSTs) for servicing automatic transmission of vehicleK3. Read and interpret repair manualK4. Describe the function of torque convertorK5. Describe the function of gear shifting lever and linkagesK6. Describe the function of solenoid valvesK7. Describe the grading of fluid used in automatic transmission K8. Describe the function of differential K9. Explain how to conduct stall speed testK10. Explain how to check the fluid level of automatic transmissionK11. Describe the function of Continuous variable transmission (CVT)K12. Describe the function of electronic control transmission (ECT)K11. Explain the safety precautions regarding personal health and workplace | Jack, safety stand, lift, scanner, spanner set, socket set, fluid filler gun, SSTs, repair manual, screw drivers, stall speed test gauge, hammers, lock pliers, PPE |