

Automotive Maintenance Specialist

The Automotive Maintenance Specialist performs preventive, corrective, and routine maintenance on vehicles and production equipment to ensure operational reliability, safety, and compliance with technical and environmental standards. In addition to advanced diagnostics and repairs, the role includes routine inspection and basic service tasks such as checking and topping up fluids, assessing brakes, tires, lights, and safety systems, and performing visual diagnostics before vehicle handover.

Main responsibilities involve applying safety and quality standards, diagnosing mechanical and electrical systems, using digital diagnostic tools, and replacing or calibrating components in both combustion and electrified vehicles (EVs and hydrogen-powered). The specialist ensures complete maintenance documentation, escalates complex issues to higher technical levels, and supports efficient workshop operations using both traditional and digital tools.

ESCO Mapping

<https://esco.ec.europa.eu/select-language?destination=/node/1>

ID	NAME	Concept URI
7231.10	Vehicle technician	http://data.europa.eu/esco/occupation/4ad4024e-d1d3-4dea-b6d1-2c7948111dce

Context

EQF Level	3-6
Departments	Production and Maintenance

ID	Name	Type	Description	Level	ESCO
C04 3	Perform energy-efficient maintenance	Skill	Carry out preventive maintenance that supports energy efficiency and emission reduction. ▪ Inspect and replace components affecting fuel/energy use ▪ Adjust systems to reduce energy loss ▪ Monitor efficiency indicators during servicing ▪ Apply OEM guidelines for eco-maintenance	2	
C04 4	Handle parts resource-efficiently	Skill	Select, handle, and recycle parts/materials in line with environmental standards. ▪ Separate recyclable materials during repairs ▪ Follow procedures for eco-friendly disposal ▪ Identify reusable parts where safe ▪ Apply inventory practices that reduce waste	2	
C04 5	Assess emission control systems	Skill	Evaluate condition and efficiency of emission-reducing components (e.g., EGR, DPF, SCR). ▪ Inspect emission-related parts for wear/clogging ▪ Use diagnostic tools for emission readings ▪ Verify compliance with emission standards ▪ Recommend replacement or cleaning measures	2	
C04 8	Perform sustainable workshop practices	Skill	Apply eco-friendly practices during inspection and maintenance activities. ▪ Separate and store used fluids and filters according to recycling standards. ▪ Minimise waste when replacing parts and materials. ▪ Ensure environmental compliance in routine service tasks. ▪ Promote workshop sustainability awareness among team members.	2	

Digital Competences

ID	Name	Type	Description	Level	ESCO
C10 3	Operate diagnostic tools	Skill	Use electronic diagnostic devices to locate faults in vehicle systems. ▪ Connect and configure diagnostic devices ▪ Read and interpret error codes ▪ Perform guided tests on subsystems ▪ Document results in maintenance logs	2	
C10 4	Support predictive maintenance technologies	Skill	Apply digital tools and software for monitoring, planning, and supporting predictive maintenance. ▪ Collect condition-monitoring data ▪ Use software for scheduling service tasks ▪ Interpret trends to anticipate failures ▪ Assist engineers in predictive strategies	2	
C12 2	Perform basic digital diagnostics	Skill	Use entry-level diagnostic devices and applications to identify common vehicle faults. ▪ Operate plug-in diagnostic readers to identify fault codes. ▪ Perform visual and digital checks for simple issues (battery, lights, tire pressure). ▪ Record inspection data in digital maintenance logs. ▪ Report anomalies requiring advanced diagnostics.	2	

Soft Skills

ID	Name	Type	Description	Level	ESCO
C12 8	Work in teams	Skill	Collaborate with engineers and technicians on shared maintenance tasks. ▪ Share information with colleagues during inspections ▪ Coordinate repair steps with other technicians ▪ Support team-based diagnostics ▪ Communicate progress clearly	2	Link

ID	Name	Type	Description	Level	ESCO
C15 5	Maintain documentation accurately	Skill	Keep precise and timely records of inspections, repairs, and part usage. ▪ Fill maintenance logs after each task ▪ Record replaced/recycled components ▪ Ensure data consistency across systems ▪ Provide reports for audits	2	Link
C15 6	Communicate with customers effectively	Skill	Engage professionally with customers about maintenance needs, findings, and outcomes. ▪ Explain diagnostic results to clients ▪ Advise on repair options and costs ▪ Provide updates on service timelines ▪ Ensure clarity and professionalism in communication	2	Link

Transversal Competences

ID	Name	Type	Description	Level	ESCO
C19 6	Detect and analyse faults	Skill	Identify and analyse faults across mechanical and electrical systems. ▪ Use diagnostic workflows systematically ▪ Confirm root causes before repair ▪ Compare symptoms across subsystems ▪ Document fault analysis outcomes	2	Link
C19 7	Occupational safety standards	Knowledge	Apply workplace safety rules during inspection and repair operations. ▪ Describe PPE requirements for tasks ▪ Follow lockout/tagout procedures ▪ Ensure compliance with occupational safety laws ▪ Identify hazards in maintenance areas	3	Link
C19 8	Evaluate roadworthiness and safety	Skill	Assess the overall safety of vehicles according to technical and legal standards. ▪ Inspect braking, steering, and lighting systems ▪ Verify compliance with regulatory standards ▪ Record findings for roadworthiness certification	3	

ID	Name	Type	Description	Level	ESCO
			Recommend corrective actions before release		
C21 8	Conduct pre-delivery inspection (PDI)	Skill	Carry out standard visual and functional checks before vehicle handover. - Inspect brakes, tires, lights, and safety systems according to checklists. - Verify fluid levels and top up when required. - Confirm vehicle cleanliness and readiness for delivery. - Report detected issues to senior technicians for further diagnosis.	2	
C21 9	Identify and escalate technical issues	Skill	Recognise technical problems beyond one's competence level and report them appropriately. - Identify complex mechanical or electrical faults. - Communicate issues to supervisors or senior technicians. - Document fault indicators clearly for follow-up. - Support efficient workflow by ensuring timely escalation.	3	

Sector Specific

ID	Name	Type	Description	Level	ESCO
C27 4	Maintain mechanical systems	Skill	Service and repair engines, brakes, suspensions, and transmission systems. - Perform inspections on mechanical systems - Replace or repair faulty parts - Conduct functional tests after service - Follow OEM repair procedures	3	Link
C27 5	Apply high-voltage safety procedures	Skill	Understand and follow safety requirements for working on high-voltage vehicles. - Explain risks associated with HV systems - Identify safety zones and equipment - Comply with HV safety protocols	2	Link

ID	Name	Type	Description	Level	ESCO
			Support safe disconnection/insulation processes		
C273	Diagnose and calibrate ADAS systems	Skill	Perform diagnostics and calibrations on advanced driver assistance systems (ADAS). - Use OEM tools for static/dynamic calibration - Align sensors and cameras - Verify calibration results through testing - Document calibration outcomes	2	Link
C317	Perform basic vehicle service	Skill	Execute standard service and maintenance tasks on vehicles. - Conduct scheduled inspections of brakes, lights, and safety systems. - Replace filters, fluids, and consumables as specified by OEM procedures. - Check and adjust tire pressure, coolant, and battery condition. - Ensure documentation of all service actions performed.	2	
C318	EV/H ₂ safety principles	Knowledge	Principles of safety when working around electric and hydrogen-powered vehicles. - Identify high-voltage and pressurised system hazards. - Describe procedures for safe handling and disconnection. - Recognise colour codes, warning labels, and safety zones. - Follow supervision and guidance in restricted operations.	3	

Other

ID	Name	Type	Description	Level	ESCO
C321	Multi-technology readiness technologies into practice	Knowledge	Adapt to and support emerging vehicle technologies, including alternative drivetrains. - Describe principles of hybrid and EV systems - Identify requirements for hydrogen/alternative fuels	2	Link

ID	Name	Type	Description	Level	ESCO
			▪ Stay updated on technology trends ▪ Assist in integrating new		