

# EUROPASS DIPLOMA SUPPLEMENT

## TITLE OF THE DIPLOMA (ES)

*Técnico Superior en Automoción*

## TRANSLATED TITLE OF THE DIPLOMA (EN)<sup>(1)</sup>

*Higher Technician in Motor Vehicles*

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(1) This translation has no legal status.

## DIPLOMA DESCRIPTION

**The holder of this diploma will have acquired the General Competence with regard to:**

Organising, scheduling and supervising the performance of maintenance operations and the logistics thereof in the motor vehicle industry, diagnosing failures in complex cases, and ensuring compliance with applicable regulatory and manufacturer's specifications.

**Within this framework, the PROFESSIONAL MODULES and their respective LEARNING OUTCOMES acquired by the holder are listed below:**

### “Electric, Safety and Comfort Systems”

The holder:

- Fits electric circuits relating the running parameters of their components with the fundamentals and laws of electricity and electromagnetism.
- Interprets the operational status of electric, safety and comfort systems of vehicles relating their functionality with maintenance processes.
- Diagnoses failures in electric, safety and comfort circuits of vehicles interpreting the indications or values of the running parameters.
- Determines the repair procedures analysing the causes and effects of the failures identified.
- Performs maintenance operations on the electric, safety and comfort systems of vehicles, interpreting defined maintenance procedures.
- Plans important modifications and reforms in the area of electromechanics, relating the specifications of a certain reform with current legislation.

### “Force Transmission Systems and Running Gear”

The holder:

- Fits fluid circuits relating the function of their elements with the operational status of the circuit.
- Interprets the operational status of the running gear and force transmission systems relating their functionality with maintenance processes.
- Diagnoses breakdowns in the running gear and force transmission systems, interpreting the indications or values of the running parameters.
- Determines repair procedures analysing the causes and effects of the breakdowns identified.
- Performs maintenance operations on the suspension, steering and braking systems, interpreting defined techniques.
- Performs maintenance operations of clutches, converters, gearboxes, differentials and transmission elements, interpreting defined techniques.
- Applies measures for risk prevention, personal safety and environmental protection assessing work conditions and risk factors.

### “Heat Engines and Their Auxiliary Systems”

The holder:

- Determines the running characteristics of Otto engines and Diesel engines analysing their manufacturing parameters and the functionality of their elements.
- Verifies the wear and tear and deformations of heat engine elements and the lubrication and cooling systems, justifying the procedures used for verification.
- Determines the running characteristics of the Otto engines and Diesel engines auxiliary systems analysing their manufacturing parameters and the functionality of their elements.
- Diagnoses breakdowns in the Otto engines and Diesel engines auxiliary systems, interpreting the indications or values of the running parameters.
- Determines the repair procedures analysing the causes and effects of the breakdowns identified.
- Performs operations for the repair of breakdowns on engines and their auxiliary systems interpreting defined maintenance techniques.

### **“Non-structural Removable and Fixed Elements”**

The holder:

- Draws sketches of parts and tools selecting the information described in the technical documentation and the established regulations.
- Defines basic machining operations, interpreting the parameters that identify the same.
- Replaces removable elements, accessories and upholstery interpreting the dismantling and fitting techniques and processes.
- Identifies deformations of non-structural metallic and synthetic elements selecting the repair method, according to the specific deformation.
- Applies techniques for the replacement of fixed elements relating the joint method with the elements to be joined according to the resistance characteristics.
- Develops constructive solutions in order to carry out optional transformations and design small tools, assessing execution conditions and functionality.

### **“Surface Treatment and Coating”**

The holder:

- Determines the repair process to be applied analysing the characteristics of the different layers of protection, levelling and trimming of surfaces.
- Applies protection, levelling, sealing and soundproofing techniques, interpreting work procedures.
- Applies colorimetric techniques, in order to obtain the colour of the vehicle paint analysing the stipulated rules of formulation and mixture.
- Applies surface trimming techniques, interpreting the given specifications and defined procedures.
- Identifies the produced defects in the application of paint analysing the causes and their correction processes.
- Applies measures for risk prevention, personal safety and environmental protection assessing work conditions and risk factors.

### **“Vehicle Structural Parts”**

The holder:

- Recognises the parts and function of the structure relating techniques for the assembly of their components with the manufacturing and repair processes.
- Identifies structural deformations in vehicles relating applied burdens with the structural characteristics of the bodywork.
- Diagnoses structural deformations in vehicles interpreting the established techniques and procedures.
- Prepares estimates on bodywork repair assessing the characteristics of the damages to be repaired.
- Repairs structural parts of vehicles in the mainframe analysing repair techniques.
- Plans important modifications and reforms in vehicle bodyworks relating the specifications of a certain reform with current legislation.

### **“Vehicles Maintenance Management and Logistics”**

The holder:

- Prepares vehicle maintenance plans analysing the intervening variables and taking into account methods and times.
- Prepares work distribution plans, relating workload with the operational status of facilities and equipment.
- Prepares large fleet maintenance plans, analysing their specific needs and requirements.
- Organises the running of a spare parts section in order to establish its physical distribution and stock control analysing management models.
- Manages the treatment of waste produced by the maintenance of vehicles and repair operations identifying polluting agents and describing their effect on the environment.
- Prepares quality plans for the running of a garage relating management effectiveness, degree of satisfaction with the service and environmental impact with the application of the established legislation.
- Prepares reports, estimates and other documents through computer programs analysing results.

### **“Communication and Relationships Techniques”**

The holder:

- Applies communication techniques analysing their characteristics and possibilities.
- Helps potential customers, relating their needs with the characteristics of the service or product.
- Transmits the business image relating the same with the characteristics and goals of the company.
- Manages complaints and suggestions analysing problems and identifying applicable legislation.
- Monitors the quality of the service provided, analysing the degree of satisfaction of potential customers.

### **“Project on Motor Vehicles”**

The holder:

- Identifies the needs of the production sector, relating them with the standard projects that may satisfy them.
- Designs projects related to the competences described in the diploma, including and developing their constituting stages.
- Plans the project implementation, determining the intervention plan and associated documentation.
- Defines the procedures for the monitoring and control of the project implementation, justifying the selection of variables and instruments used.

### **“Professional Training and Guidance”**

The holder:

- Selects job opportunities, identifying the different possibilities of labour integration, and the alternatives of lifelong learning.
- Applies teamwork strategies, assessing their effectiveness and efficiency on the achievement of the company's goals.
- Exercises rights and complies with the duties derived from labour relationships, recognising them in the different job contracts.
- Determines the protective action of the Spanish Health Service in view of the different covered eventualities, identifying the different types of assistance.
- Assesses risks derived from his/her activity, analysing job conditions and risk factors present in his/her labour setting.
- Participates in the development of a risk prevention plan in a small enterprise, identifying the responsibilities of all agents involved.
- Applies protection and prevention measures, analysing risk situations in the labour setting of the Higher Technician in Motor Vehicles.

### **“Business and Entrepreneurial Initiative”**

The holder:

- Recognises skills related to entrepreneurial initiative, analysing the requirements derived from job positions and business activities.
- Defines the opportunity of creating a small enterprise, assessing the impact on the performance setting and incorporating ethic values.
- Carries out the activities for the setting-up and implementation of a company, choosing the legal structure and identifying the associated legal obligations.
- Carries out basic administrative and financial management activities of an SME, identifying the main accounting and tax obligations and filling in documentation.

### **“On the Job training”**

The holder:

- Identifies the company's structure and organization, relating the same to the production and marketing of the fitting and repairing garage.
- Applies labour and ethic habits in his/her professional activity according to the characteristics of the job position and the procedures established by the company.
- Receives and delivers vehicles maintaining commercial relationships with customers, under the direct supervision of the reception area manager.
- Diagnoses breakdowns in the maintenance of vehicles, verifying the interventions carried out for repair and adjusting parameters in the necessary cases.
- Carries out the monitoring of vehicles maintenance processes preparing the planning and optimising the existent ones.
- Carries out complete processes of structural repairs, following technical specifications under the supervision of the reception area manager.
- Participates in the spare parts area management, taking into account stock according to the variables of buying and selling.
- Applies personal and environmental safety measures, which are specific and particular of the company and affect productive processes.

### **RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE DIPLOMA**

The Higher Technician in Motor Vehicles works in the sector of manufacturing and maintenance of vehicles, in the sub-sector of vehicles, heavy vehicles, tractors, agricultural machinery, extractive, construction and civil engineering industries.

The most relevant occupations or jobs are the following:

- Electro mechanics area manager
- Vehicles receiving operator
- Motor vehicles garage overseer
- Manager of Vehicles Compulsory Technical Inspection (MOT inspection)
- Vehicles valuation technician
- Service manager
- Spare parts area manager
- Manager in the commercial area of vehicle-related equipment
- Bodywork area manager: bodywork and paint

## AWARD, ACCREDITATION AND LEVEL OF THE DIPLOMA

**Name of the body awarding the diploma on behalf of the King of Spain:** Spanish Ministry of Education or the different Autonomous Communities according to their areas of competence. The title has academic and professional validity throughout Spain.

**Official duration of the education/ training leading to the diploma:** 2000 hours.

**Level of the diploma (national or international)**

- NATIONAL: Non-University Higher Education
- INTERNATIONAL:
  - Level 5 of the International Standard Classification of Education (ISCED5).
  - Level 5 of the European Qualifications Framework (EQF5).

**Entry requirements:** Holding the Certificate in Post-Compulsory Secondary Education (Bachillerato) or holding the corresponding access test.

**Access to next level of education/training:** This diploma provides access to University studies.

**Legal basis.** Basic regulation according to which the diploma is established:

- Minimum teaching requirements established by the State: Royal Decree 1796/2008, of 3 November, according to which the diploma of Higher Technician in Motor Vehicles and its corresponding minimum teaching requirements are established.

**Explanatory note:** This document is designed to provide additional information about the specified diploma and does not have any legal status in itself.

## COURSE STRUCTURE OF THE OFFICIALLY RECOGNISED DIPLOMA

PROFESSIONAL MODULES IN THE DIPLOMA ROYAL DECREE	CREDITS ECTS
Electric, Safety and Comfort Systems.	13
Force Transmission Systems and Running Gear.	13
Heat Engines and Their Auxiliary Systems.	12
Non-structural Removable and Fixed Elements.	13
Surface Treatment and Coating.	13
Vehicle Structural Parts.	9
Vehicles Maintenance Management and Logistics.	8
Communication and Relationships Techniques.	3
Project on Motor Vehicles.	5
Vocational Training and Guidance.	5
Business and Entrepreneurial Initiative.	4
On the Job Training.	22
	TOTAL CREDITS
	<b>120</b>
OFFICIAL DURATION (HOURS)	<b>2000</b>

\* The minimum teaching requirements shown in the table above comprise 55% official credit points valid throughout Spain. The remaining 45% corresponds to each Autonomous Community and can be described in the **Annex I** of this supplement.

## INFORMATION ON THE EDUCATION SYSTEM

