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## Ford Motor Company in Cadiz 1929-1923

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#### Abstract

The history of the automobile, is directly associated with the history of the first mass manufacturer of vehicles, Ford Motor Company. The development of techniques focused on the improvement of production and the introduction of technological advances in the field of manufacturing has favored the rapid expansion of the company around the world. In the present work, a bibliographical review of the most interesting aspects in the installation and evolution of the first Ford factory in Cadiz (Spain), was carried out. In addition, the main car models and manufacturing procedures are described that were developed in this location.

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#### 1. Introduction

In the first decades of the twentieth century, a significant expansion of the emerging industry in the world is produced, taking a special relevance in the field of automotive. Thanks to a growing technological revolution, automobile manufacturing is positioned as one of the most innovative industries of the epoch. In this aspect, Ford Motor Company is located at the top of world expansionism. In the present work, a compilation and exposure of the implementation process of the automotive industry has been carried out through Ford Motor Company in Cadiz, starting point of the development of the brand in Spain. In addition, a literature review has been carried out that allows

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the exposition of the most important features of Ford's initial models (Ford Model T) and the evolution and expansion of the main productive processes [1-6].

#### 2. Ford Model T

One of the most representative models of the brand, Model T of Ford Motor Company [1,2], Fig.1, began its commercialization on October 1, 1908, maintaining the manufacture of this model for approximately 19 years.



Fig. 1. a) Pictography of the Ford T; b) Ford Model T.

This model was called "The Universal Automobile", and was developed at the Piquett Avenue factory in Detroit. In the beginning, the first car model has a market price of \$825, a price that would be reduced to \$260 thanks to technological advances during the manufacturing period. It is estimated that total production of Ford Model T vehicles exceeded 15 million units between 1908 and 1928. These events resulted in the selection of the Ford first model as the automobile of the century among a set of 700 cars [1,2]. The selection was carried out by a committee of experts made up of 133 members. In this respect, Henry Ford was in turn appointed as entrepreneur of the century. Dick Holzman as president of the committee of experts in the car of the century selection, makes the following statement:

"Retrospectively, the twentieth century can be considered the century of the automobile, a real revolution in technology and quality of life"

It is possible to confirm that Ford Motor Company is one of the main drivers of the technological revolution, from the point of view of manufacturer and leader of the automotive industry, contributing great advances and positioning the automobile sector in the highest industrial development of the twentieth century.

#### 3. Beginnings of Ford Motor Company

The establishment of Ford Motor Company took place in 1903, Henry Ford together with 11 investors, and with an initial investment estimated at \$28,000, begins the manufacture of competition cars with the model 999, Fig. 2. This model, used by the racing driver Barney Oldfield, was employed as the image of the company across the United States, thus increasing the popularity of the brand. Among the most outstanding features of the company's first vehicle, the maximum speed registered at 130 km/h is shown, setting a new American record.

After the 999 racing competition car, the first models coming from the Ford company were model A (1903-1904), a two-seater model from which 1750 units were manufactured. The Ford A, was replaced by model C in 1904, maintaining a coexistence in the manufacture. These models are replaced by the Ford B model (1905) and later by the Ford K model.

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