

# Image material

## 125 years of Bosch – Invented for life

Digitized image material is available on the press forum at  
[www.bosch-press.com/125Years/](http://www.bosch-press.com/125Years/)

All images may be reproduced free of charge as long as the source is cited as: "Photo: Bosch."

▶ **The history of Bosch in Germany** Page 2

▶ **The history of internationalization at Bosch** Page 4

▶ **Technological milestones** Page 8

▶ **Robert Bosch** Page 11

▶ **Six chairmen in 125 years** Page 13

▶ **Technology for the future** Page 14

► The history of Bosch in Germany



▲ 1-AN-16884

1905: The first Bosch shift supervisors



▲ 1-AN-16885

1907: Bosch directors take a test drive. From left: Gustav Klein, Gottlob Honold, Ernst Ulmer, and Arnold Zähringer



▲ 1-AN-16886

1926: The "Bosch-Dienst" (Bosch Service) symbol. Also known as the "Bosch-Dienst" lantern, it was registered as a trademark in 1926.



▲ 1-AN-16887

1921: The first repair shop in Hamburg led to the creation of a customer service organization based on Bosch Service repair shops.



▲ 1-AN-16888

1923: Workers producing brass and aluminum bars on an extrusion press at the Feuerbach foundry



▲ 1-AN-16889

1924: Behind a residential building, the "Robert Bosch" name features prominently on the roof of the former Lipp & Sohn piano factory in Feuerbach.



▲ 1-AN-16890

1926: Draftsmen at work designing headlights



▲ 1-AN-16891

1952: Bosch associates on the assembly line for refrigerators at the Giengen manufacturing plant



▲ 1-AN-16892

1954: Cinema advertisement for Bosch windshield wipers

► The history of Bosch in Germany



▲ 1-AN-16893

1958: At the Leipzig spring fair, Bosch automotive products are showcased at the Bosch booth



▲ 1-AN-16894

c 1955: Poster advertising Junkers gas-fired water heaters. When it acquired the Junkers gas-fired appliance business in 1932, Bosch moved into a new market.



▲ 1-AN-16895

1961: The Robert Bosch Hospital in Stuttgart. Robert Bosch donated the hospital to the city in 1936, the year in which he celebrated his 75th birthday and the 50th anniversary of his company.



▲ 1-AN-16896

1970: A Bosch associate testing electronic control units for electric vehicles at the company's Schwieberdingen location. Bosch had sufficient expertise to build a prototype vehicle, but there was still no suitable energy store in the form of a drive battery.



▲ 1-AN-16897

1978: Components for the Jetronic electronic gasoline injection system being made at the semiconductor fab in Reutlingen. The picture shows components being mounted on a circuit board for a control unit.

► The history of internationalization at Bosch



▲ 1-AN-16898

1905: Cie des Magnétos Simms-Bosch Ltd., London. The first Bosch sales office outside Germany played a significant role in the early years of the company's existence.



▲ 1-AN-16899

1906: Bosch Magneto Co., New York City. From 1906 to 1908, the first Bosch sales office in the United States occupied premises at 160 West 56th Street.



▲ 1-AN-16900

1910: Bosch Magneto Co. Ltd., London. The photo documents the move from Store Street in May 1910. Notices have been posted on the windows to redirect customers to the new address on Newman Street.



▲ 1-AN-16901

c 1920: Salesroom at Leonida & Co., the local Bosch sales office in Bucharest, Romania



▲ 1-AN-16902

1924: The Bosch sales office in Stockholm, Sweden, run by the local agent A.B. ROBO. The large windows of the art nouveau building provide generous space for displaying Bosch products.



▲ 1-AN-16903

1928: Bosch associates outside the premises of C. Illies & Co., the local Bosch sales office in Kobe, Japan



▲ 1-AN-16904

1930: View of the Lavalette-Bosch factory building in St. Ouen, on the outskirts of Paris



▲ 1-AN-16905

1933: Bosch sales office in Shanghai



▲ 1-AN-16906

1937: The Bosch sales office operated by Friedrich Hoppert in Johannesburg, South Africa

▶ The history of internationalization at Bosch



▲ 1-AN-16907

1938: A Javanese associate in Indonesia carrying a diesel injection pump



▲ 1-AN-16908

1939: A hive of activity: the Bosch installation and repair workshop in Manila, the Philippines. By the 1930s, the network of Bosch Service repair shops had spread to nearly every country in the world.



▲ 1-AN-16909

c 1958: Main entrance to the manufacturing plant operated by Robert Bosch (Pty.) Ltd. in Clayton, Australia



▲ 1-AN-16910

c 1958: Billboard advertising the services of the Bosch partner Electro Diesel S.A. in Oviedo, Spain



▲ 1-AN-16911

c 1975: Manufacturing nozzles for diesel injection pumps at the Campinas plant in Brazil



▲ 1-AN-16912

1982: Engineering draftsmen at work in Bangalore, India



▲ 1-AN-16913

1985: Bosch Service vehicle in Chicago, USA



▲ 1-AN-16914

2008: A regional center for research and advance engineering opens in Singapore. Photo: Evaporation sources are used to deposit films of organic materials.



▲ 1-AN-16915

2010: Bosch associates in Bangalore on their way to lunch. The city is home to the largest Bosch plant in India and the headquarters of the Indian regional subsidiary.

► The history of internationalization at Bosch



▲ 1-AN-16916

Bosch associates in Bangalore, India. The open space in the background serves as a meeting place where presentations are given on important corporate issues such as the Bosch Production System (BPS).



▲ 1-AN-16917

The vocational center at Bosch in Bangalore, India, provides computer-based training in many different disciplines, including technical drawing.



▲ 1-AN-16918

Apprentices at the vocational center in Bangalore, India, learning the art of draftsmanship



▲ 1-AN-16919

The Tata Nano, an inexpensive vehicle incorporating top-quality Bosch technology, pictured in front of the automotive engineering center at Bosch in Bangalore, India



▲ 1-AN-16920

A Bosch associate who works for the Indian subsidiary Robert Bosch Engineering and Business Solutions devotes her time once a week to tutoring children from impoverished families.



▲ 1-AN-16921

Street scene in Bangalore, India, showing a typical Indian three-wheeled vehicle

► The history of internationalization at Bosch



▲ 1-AN-16922

Kids Day at the Bosch regional headquarters for southeast Asia in Singapore, a yearly event in which many Bosch associates take their children to work.



▲ 1-AN-16923

Bosch's southeast Asian headquarters in Singapore: a young Singaporean tries out a cordless screwdriver with a lithium-ion battery in the exhibition area of the entrance foyer.



▲ 1-AN-16924

Bosch's southeast Asian headquarters in Singapore: The new building won the Green Mark Platinum award, Singapore's highest accolade for ecological building practices, when it was completed in 2009.

► Technological milestones



▲ 1-AN-16925

1887: The company's first low-voltage magneto ignition device for stationary gas engines. Robert Bosch built his first magneto ignition device in 1887 for a mechanical engineering company.



▲ 1-AN-16926

1897: The De Dion-Bouton three-wheeler, equipped with a Bosch low-voltage magneto ignition device. It was the first vehicle on which Bosch tested his magneto ignition device.



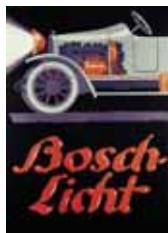
▲ 1-AN-16927

1902: First Bosch high-voltage magneto ignition system with spark plug



▲ 1-AN-16928

1910: "Red Devil" poster. The "Mephisto" motif was one of the most famous advertising posters published by Bosch prior to the first world war.



▲ 1-AN-16929

1914: Poster advertising the Bosch automotive lighting system. One of the first commercial art projects taken on by Lucian Bernhard.



▲ 1-AN-16930

1921: Draft version of a poster designed for Bosch spark plugs by the Lucian Bernhard studio. One of the rare original works featuring the armature in a circle trademark.



▲ 1-AN-16931

1927: The first series-produced diesel injection pump, a product designed for use in commercial vehicles



▲ 1-AN-16932

1928: The first Bosch power tool, the Forflex hair trimmer; depicted here on an advertising poster



▲ 1-AN-16933

1932: The first Bosch portable electric drill. The principle of an electric motor in the handle, taken from the Forflex haircutter presented by the company in 1928, was the basis for a compact power tool.

► Technological milestones



▲ 1-AN-16934

1932: MAN was the first company to incorporate Bosch diesel pumps into its vehicles from 1927. In 1932, MAN introduced its most powerful diesel truck to date, equipped with Bosch fuel-injection.



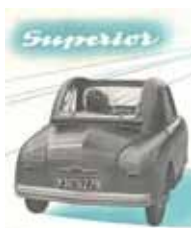
▲ 1-AN-16935

1933: Bosch presented its first refrigerator at the Leipzig spring fair. In so doing, Bosch took its first step into the household appliance market.



▲ 1-AN-16936

1952: The "Neuzeit I" food processor, designed by Bosch for the modern housewife



▲ 1-AN-16937

1952: Advertising leaflet for the Gutbrod Superior, one of the first vehicles to be equipped with a Bosch gasoline injection pump



▲ 1-AN-16938

1955: Image from a leaflet advertising the Junkers Gasiator gas-fired radiator, evoking the promise of a cozy, warm home



▲ 1-AN-16939

1960: The first fully automatic Bosch washing machine, launched two years after Bosch showcased its first-ever washing machine in 1958



▲ 1-AN-16940

1967: Market launch of the Volkswagen 1600 E featuring the first Bosch electronic gasoline injection system, the D-Jetronic



▲ 1-AN-16941

1976: The three-way catalytic converter finally conquered the market thanks to the invention of the lambda sensor by Bosch. The device pictured here dates from 1989.



▲ 1-AN-16942

1978: Start of series production of the electronically controlled ABS antilock braking system. Photo taken during tests to compare the performance of Mercedes sedans with and without Bosch ABS.

► Technological milestones



▲ 1-AN-16943

1986: Start of series production of the Bosch TCS traction control system. The photo was taken in 1990 during trials of the system in Arjeplog, Sweden.



▲ 1-AN-16944

1989: The Bosch TravelPilot IDS, Europe's first autonomous vehicle navigation system. In 1995, its successor came onto the market: a satellite-assisted version with route guidance and speech output.



▲ 1-AN-16945

1995: World premiere of the ESP® electronic stability program. The photo shows a test drive during the development phase. Until 1997, the system was known as vehicle dynamics control.



▲ 1-AN-16946

1997: Launch of the world's first mass-produced common-rail fuel-injection system. The first vehicles to be equipped with this system were the Alfa Romeo 156 jtd and the Mercedes-Benz C 220 CDI.



▲ 1-AN-16947

2003: Launch of the Ixo cordless screwdriver with lithium-ion battery. Today it is the world's best-selling portable power tool. The model shown here is the latest-generation Ixo from 2009.



▲ 1-AN-16948

2005: Bosch night vision system. By means of an infrared image, the system enables drivers to see more at night than with normal headlight beams



▲ 1-AN-16949

2010: Start of production of the Bosch predictive emergency braking system, which alerts the driver to critical situations and automatically applies the



▲ 1-AN-16950

2010: The Bosch SMI540 sensor measures engine speed and acceleration simultaneously. This capability offers the prospect of new, enhanced versions of the ESP® electronic

brakes to avoid a collision stability program.

► **Robert Bosch**



▲ 1-AN-16951

The house where Robert Bosch was born in 1861 (photographed in 1931): the "Krone" inn in Albeck near Ulm



▲ 1-AN-16952

1879: Apprenticeship certificate awarded to Robert Bosch



▲ 1-AN-16953

1886: Robert Bosch's first workshop in the courtyard-entrance building at 75 B Rotebühlstrasse in Stuttgart (photographic reproduction of a pen-and-ink sketch)



▲ 1-AN-16954

Robert Bosch, 1886



▲ 1-AN-16955

1888: Robert Bosch, two years after he founded his "Workshop for Precision Mechanics and Electrical Engineering" in Stuttgart



▲ 1-AN-16956

1890: Robert Bosch used a bicycle, something of a rarity at the time, as a swift and economical means of visiting his customers.



▲ 1-AN-16957

The oldest surviving invoice issued by Robert Bosch's company, dated June 11, 1891



▲ 1-AN-16958

Workplace regulations for Robert Bosch's company dated July 16, 1906. Their most important stipulation was that associates were to work only eight hours each day



▲ 1-AN-16960

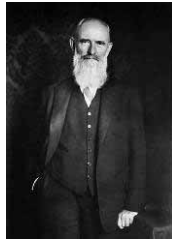
1910: The first company-owned factory building, on Hoppenlaustrasse in Stuttgart

▶ Robert Bosch



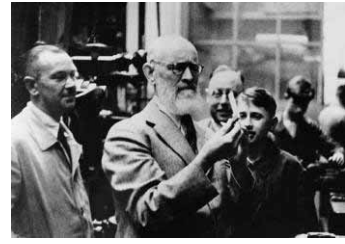
▲ 1-AN-16961

Robert Bosch, 1925



▲ 1-AN-16962

Robert Bosch, 1931, aged 70. By this stage of his life, Robert Bosch was a highly respected personality, known far beyond the confines of his native Germany.



▲ 1-AN-16963

1936: Robert Bosch inspecting an apprentice's work. Robert Bosch placed great importance on the training of his apprentices, founding the company's own apprentice training department as early as 1913.



▲ 1-AN-16964

1936: Robert Bosch (center) with associates from the Feuerbach plant, pictured in front of a restaurant in Ulm



▲ 1-AN-16965

1940: Robert Bosch at the official opening of the Robert Bosch Hospital. From left: the mayor of Stuttgart Karl Strölin, Ludwig Schweizer, Robert Bosch, the architect Paul Hahn, and members of Stuttgart's municipal council



▲ 1-AN-16966

Robert Bosch, 1941

► Six chairmen in 125 years



▲ 1-AN-16967

Robert Bosch, 1925



▲ 1-AN-16968

Hans Walz: chairman of the board of management of Robert Bosch GmbH from 1953 to 1963



▲ 1-AN-16969

Prof. Dr. phil. h. c. Hans L. Merkle: chairman of the board of management of Robert Bosch GmbH from 1963 to 1984



▲ 1-AN-16970

Prof. e. h. Dr. phil. Dr. rer. oec. h. c. Marcus Bierich: chairman of the board of management of Robert Bosch GmbH from 1984 to 1993



▲ 1-AN-16971

Professor Dr.-Ing. Hermann Scholl: chairman of the board of management of Robert Bosch GmbH from 1993 to 2003, chairman of the shareholders' meeting of Robert Bosch Industrie-treuhand KG since 2000 and chairman of the supervisory council of Robert Bosch GmbH since 2003



▲ 1-AN-16972

Franz Fehrenbach: chairman of the board of management of Robert Bosch GmbH since 2003

## ► Technology for the future

### Innovative technology for automotive applications



▲ 1-AN-16973

The electric vehicle: the vision of energy-efficient mobility



▲ 1-AN-16974

Bosch is developing a multitude of components and systems for all-electric vehicles.



▲ 1-AN-16975

Bosch offers solutions for both hybrid and all-electric vehicles. The photo shows an associate with an electric motor.



▲ 1-AN-16976

Bosch develops efficient, high-performance electric motors for integration into the powertrains of hybrid vehicles.



▲ 1-AN-16977

A Bosch associate testing an automotive lithium-ion battery system at the Feuerbach plant in Stuttgart



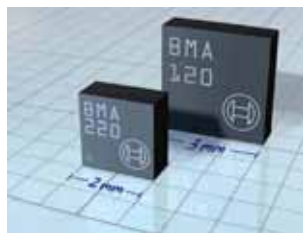
▲ 1-AN-16978

The new wafer fab in Reutlingen cost a total of 600 million euros to build and is the largest single investment ever made by the Bosch Group.



▲ 1-AN-16979

Bosch constantly improves materials and processes with the aim of making microelectromechanical sensors for automotive applications even smaller and more powerful .



▲ 1-AN-16980

The Bosch Sensortec BMA220 digital sensor is the world's smallest digital acceleration sensor. It fits into an LGA package measuring just 2 mm x 2 mm x 0.98 mm.



▲ 1-AN-16981

The Bosch regional headquarters for southeast Asia in Singapore: two associates from Bosch Software Innovations with the prototype of a charge spot for electric vehicles

► Technology for the future

Renewable energy from the wind and the sun



▲ 1-AN-16982

Bosch Rexroth generator gearboxes (visible under the open maintenance access cover) convert the movement of the rotor blades into electrical power.

(Source: Bosch Rexroth)



▲ 1-AN-16983

An associate at the Bosch Rexroth plant in Witten, Germany, assembling the spur gear stage of a wind turbine gearbox



▲ 1-AN-16984

Bosch generator gearboxes convert the movement of the rotor blades into electrical power. The photo shows a generator gearbox in the lower half of its housing.



▲ 1-AN-16985

At the Bosch Rexroth plant in Nuremberg, Germany, the surfaces of planetary gears for wind turbines are additionally hardened by heat treatment, since the carbon content of their steel is too low.



▲ 1-AN-16986

Solar systems that automatically track the position of the sun, built with Bosch Solar Energy crystalline modules



▲ 1-AN-16987

An associate at Bosch Solar Energy inspecting a solar cell in-between two production stages

► **Technology for the future**

**Renewable energy from the wind and the sun**



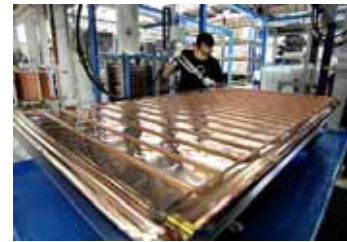
▲ 1-AN-16988

Nitrite coating: a robotic arm loads wafers into a container known as a “wafer boat” in preparation for application of a nitrite coating in a horizontal furnace (Arnstadt plant, Germany).



▲ 1-AN-16989

An associate checking the dimensions of an ingot of monocrystalline silicon produced at the Bosch Solar Energy plant in Arnstadt, Germany



▲ 1-AN-16990

Bosch Thermotechnology manufactures solar collectors in Wetztingen, Germany (seen here) and in Aveiro, Portugal.



▲ 1-AN-16991

The Bosch regional headquarters for southeast Asia in Singapore: the building’s energy needs are met by more than 400 Bosch Solar Energy photovoltaic modules installed on the roof. Pictured here: thin-film modules.



▲ 1-AN-16992

The Bosch regional headquarters for southeast Asia in Singapore: monocrystalline photovoltaic modules on the roof of the main building



▲ 1-AN-16993

The Bosch regional headquarters for southeast Asia in Singapore: “glovebox” in a research laboratory where organic photovoltaic cells are manufactured

## ► Technology for the future

### Renewable energy from the wind and the sun



▲ 1-AN-16994

The Bosch regional headquarters for southeast Asia in Singapore: research laboratory where organic photovoltaic cells are manufactured



▲ 1-AN-16995

The Bosch regional headquarters for southeast Asia in Singapore: associates in the “yellow room” of the research laboratory where organic photovoltaic cells are manufactured