

GERMAN CULTURE COURSE

German Cars & the Autobahn

From Benz's Patent-Motorwagen to the Autobahn, the People's Car and the electric future.

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GERMAN CARS & THE AUTOBAHN

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German Cars & the Autobahn

Course 1 · Chapter 1 · Why German Cars? Scope & Sources

Few countries are as closely linked to the car as Germany. The names Mercedes-Benz, BMW, Audi, Porsche and Volkswagen are known worldwide, the Autobahn is famous for stretches without a general speed limit, and the car industry employs a large share of German workers (check the figures). You do not have to like cars, or even to drive, to find the history worth knowing: it touches invention, industry, war, politics, East and West, and the way Germans think about speed, freedom and engineering. This first chapter sets out the scope of the course, tests the claim that Germany invented the car, and lists the sources to use. Names and dates are from general knowledge and flagged "check".

The Car as a German Icon

Brands as national symbols

Mercedes-Benz, BMW, Audi, Porsche and Volkswagen are among the best-known German brands anywhere, and the car is often cited as a symbol of German engineering (check the rankings). The picture is partly earned and partly marketing.

An economic giant

Cars and car parts are among Germany's largest exports, and the industry supports many jobs in the makers and in their suppliers (check the current figures). Debates about the industry are therefore also debates about the German economy.

A cultural subject

The Beetle, the Trabant, the Autobahn and the sports car appear in German film, music and memory, and each means different things to different groups. The course treats cars as history and culture, not as a buying guide.

"Made in Germany"

- **A British origin.** The label "Made in Germany" came from Britain. The Merchandise Marks Act of 1887 required imported goods to carry their country of origin, and British makers hoped the mark would put buyers off cheaper German imports (check the details).
- **From warning to badge.** Over the following decades German industry built a reputation for quality, and the phrase turned from a warning into a selling point (check how and when).
- **For cars.** The reputation for solid engineering is tied up with the marques' history, which later chapters follow.
- **A caution.** Reputation is not the same as fact. Reliability surveys give different rankings depending on method and year (check), so claims such as "German cars are the most reliable" need a source.

Who Invented the Car?

Claim or person (check each)	Note
Carl Benz, 1885 to 1886	Benz built a three-wheeled motor vehicle in Mannheim and received a patent in January 1886. It is widely called the first practical car with an internal-combustion engine.
Gottlieb Daimler and Wilhelm Maybach, 1885 to 1886	Working separately from Benz, they built a motorcycle and a four-wheeled motor carriage with a high-speed engine.
Nicolas-Joseph Cugnot, 1769	A French engineer who built a steam-powered vehicle for hauling guns, often called the first self-propelled road vehicle.
Étienne Lenoir, 1860s	A Belgian-French engineer who built an early gas engine and a vehicle powered by it.
Siegfried Marcus	A Vienna-based inventor whose handcart and later car are sometimes claimed as earlier (check how well documented they are).

What can be said

"Germany invented the car" depends on the definition. If "car" means a practical vehicle driven by a light internal-combustion engine, then the German work of Benz and of Daimler and Maybach in the 1880s is the usual starting point, and Benz's patent of 1886 is the best-documented date. If it means any self-propelled road vehicle, the answer reaches

back to the French steam carriage of 1769 and to other inventors. Chapter 2 also covers the French makers who built the first large industry, and the argument over priority (check).

Scope of the Course

Part (check)	Chapters	Topics
Invention and the early marques	2, 3	Benz, Daimler, Maybach, Diesel; Mercedes, BMW, Opel, Auto Union
The Autobahn and the People's Car	4, 5, 6	Road plans, the Nazi years, Volkswagen and Porsche
East and West	7, 8	Wirtschaftswunder, Trabant and Wartburg
Today	9, 10	Speed limits, safety, diesel emissions, electric cars

The course is Germany-centred. It covers the major marques as history and engineering, and the Nazi period in its own chapters, factually and with sources. It does not cover buying, repairing or racing in depth.

Myths to Test

Common claim	The question a careful reader asks (check each)
Germany invented the car.	Which definition, which inventor, which date? (Chapter 2)
The Autobahn has no speed limit.	How much of the network is unrestricted, and what are the rules? (Chapter 9)
Hitler built the Autobahn.	What was planned and built before 1933, and what did the later programme achieve? (Chapters 4 and 5)
The Beetle was Hitler's car.	What was the KdF project, who designed the car, and what happened after 1945? (Chapter 6)
German cars are the most reliable.	Which survey, which models, which years?
East German cars were simply bad.	What did the Trabant do well, what limits did the economy impose, and what do the jokes show? (Chapter 8)

Sources to Use

- **Museums and archives,** such as the Mercedes-Benz Museum in Stuttgart, the Porsche Museum, the BMW Museum in Munich, the Autostadt in Wolfsburg and the Deutsches Museum in Munich (check names and what is open).
- **Industry and motoring bodies,** such as the German Association of the Automotive Industry (VDA) and the motoring club ADAC, which publish statistics (check; these sources have their own interests).
- **Historians' accounts,** especially for the Autobahn and Volkswagen, where popular claims are often wrong (check which histories exist in English).
- **Contemporary documents,** such as period advertisements, brochures and newspapers, which show how cars were presented.

A British comparison

The British motor industry went through a similar rise and fall, from the early marques and the Austin Seven to the Mini and the decline of the 1970s. Britain's first long motorway, the M1, opened in 1959 (check), while Germany's first motor-only road dates from 1932, so the comparison shows two different national road histories. The 1887 "Made in Germany" mark is also a reminder that British makers once saw German goods as a threat.

Check the details

Every name, date and figure in this course comes from general knowledge and is marked "check" where it is uncertain. Many popular stories about cars and the Autobahn are myths or half-truths, so verify against historians and museum sources before repeating them.

Exercises

EXERCISE 1

List five things you believe about German cars or the Autobahn, and for each say whether it is documented, claimed or unknown.

→ Solution

EXERCISE 2

Choose one of the myths in the table and write a short plan for testing it: what evidence you would look for and where.

→ Solution

EXERCISE 3

Explain how the definition of "car" changes the answer to "Who invented it?", and what a careful sentence on the subject would say.

→ Solution

Quick Reference

- **The industry:** a large part of German exports and jobs (check)
- **"Made in Germany":** a British label of 1887, later a badge of quality (check)
- **Invention:** Benz's patent of 1886; the answer depends on the definition
- **The course:** invention, the Autobahn and the People's Car, East and West, today
- **The caution:** many popular car and Autobahn stories are myths

German Cars & the Autobahn

Course 1 · Chapter 2 · Inventing the Automobile

The 1880s were the decade in which a workable petrol-engined car appeared in Germany, and two men who never worked together, Carl Benz in Mannheim and Gottlieb Daimler with Wilhelm Maybach near Stuttgart, are usually named as its inventors. This chapter tells that story, including the famous drive of Bertha Benz, explains the engine that made it possible, and looks at the French makers who built the first car industry. It also separates the documented parts from the legends. Names and dates are from general knowledge and flagged "check".

The Engine First

The four-stroke principle

Nikolaus Otto built a successful four-stroke gas engine in the 1870s, which was sold for stationary use in workshops (check the date). The same four-stroke cycle later powered most cars.

A lighter engine

To power a vehicle, an engine needed to be light and to run on a liquid fuel, not on town gas. Daimler and Maybach, who had worked with Otto's firm, developed a small high-speed petrol engine in the 1880s (check).

Parallel work

Benz developed his own engine independently, with a different design. The two efforts were close in time and place but separate (check how little contact there was).

Benz and the Patent-Motorwagen

Point (check each)	Note
The inventor	Carl Benz (1844 to 1929) was an engineer who first built engines in Mannheim.
The vehicle	A three-wheeled carriage with a single-cylinder four-stroke petrol engine mounted at the rear, designed as a whole vehicle and not as a horse carriage

Point (check each)	Note
	with an engine added.
The patent	Applied for on 29 January 1886, which is often given as the "birth certificate" of the car (check the date and number).
First public use	Trials took place in Mannheim in 1886, and the vehicle was sold in small numbers from 1888 (check).
Reception	Public interest was limited at first, since the machine seemed a curiosity, and early customers often found it unreliable.

Bertha Benz's Drive

A famous journey, with some legend

In August 1888, Bertha Benz, Carl's wife and business partner, drove one of the vehicles with her two teenage sons from Mannheim to Pforzheim, a distance of about 100 kilometres, reportedly without telling her husband beforehand (check). Along the way she is said to have bought a petroleum solvent at a pharmacist's in Wiesloch for fuel, had a blacksmith help with a chain, and had a cobbler fit leather to the brakes, which is often named as an early brake lining (check each detail). She sent a telegram when she arrived. The journey proved the car could go a long way and brought publicity. The outline is well documented; the details come from later retellings, and the popular version should be marked as such. A signposted "Bertha Benz Memorial Route" now follows the route (check).

Daimler and Maybach

- **1885.** Daimler and Maybach built a wooden-framed two-wheeler with their engine, often called the first motorcycle (check).
- **1886.** They fitted an engine to a horse-drawn carriage, producing a four-wheeled motor carriage (check).
- **The company.** They formed Daimler-Motoren-Gesellschaft in 1890 (check), selling engines for carriages, boats and industry as well as cars.

- **Maybach.** Wilhelm Maybach (1846 to 1929) is credited with the carburettor and other improvements, and he later designed the Mercedes of 1901 (Chapter 3; check).

The French Contribution

- **Licences.** The French firm Panhard et Levassor obtained rights to build Daimler engines around 1890 and made some of the first commercially successful cars (check).
- **Output.** In the 1890s French makers, including Peugeot, built more cars than German ones, and early motor racing was mainly French (check the figures).
- **Why it matters.** The car was an international invention, and German engineers supplied key technology while French firms led early production. This is why the claim "Germany invented the car" needs care (Chapter 1).

Diesel's Engine

- **Rudolf Diesel** (1858 to 1913) patented a compression-ignition engine in the 1890s, and a working engine was demonstrated by 1897 (check the dates).
- **Use.** It was first used in industry and ships, and passenger cars with diesel engines came much later (Chapter 10).
- **His death.** Diesel disappeared from a ship crossing to England in 1913, and the cause is not established (check); an accident, suicide and murder have all been suggested, and the sources do not settle it.

A British comparison

Early British motoring was held back by law. The Locomotive Acts of the 1860s limited speeds to a walking pace on public roads and required a person with a red flag to walk ahead, rules relaxed only in 1896, when the speed limit was raised to 14 mph and a London to Brighton run celebrated the change (check). Germany did not have a comparable bar, which is one explanation offered for the earlier start on the Continent, though it is only one of several (check).

Check the details

Dates, specifications and the details of Bertha Benz's journey are from general knowledge and differ between sources, and company histories tend to tell the story in their own favour. Verify with museum sources, independent histories and the patent records.

Exercises

EXERCISE 1

Describe what was new about Benz's Patent-Motorwagen and why the patent of 1886 is given as the birth of the car.

→ Solution

EXERCISE 2

Tell the story of Bertha Benz's drive in a few sentences, marking what is documented and what is likely to come from later retellings.

→ Solution

EXERCISE 3

Explain how the French makers fit into the story of the car and why they complicate the claim that Germany invented it.

→ Solution

Quick Reference

- **Engine:** Otto's four-stroke engine; Daimler and Maybach's light petrol engine (check)
- **Benz:** Patent-Motorwagen, patent of 29 January 1886 (check)
- **Bertha Benz:** Mannheim to Pforzheim, 1888 (check the details)
- **France:** licences and early output led Germany in the 1890s (check)

- **The caution:** company legends and "first" claims need sources

German Cars & the Autobahn

Course 1 · Chapter 3 · The Great Marques Before 1933

By 1933 the main German car makers had their names, their rivalries and their early reputations. This chapter follows how Mercedes, Opel, BMW and the companies that became Audi came into being, how the Daimler and Benz firms merged, and why German motoring remained a pastime of the wealthy while the United States was already a country of car owners. It also covers the first appearance of motor racing as a showcase. Names and dates are from general knowledge and flagged "check".

Mercedes and Daimler-Benz

The Mercedes of 1901

The Austrian-born businessman Emil Jellinek, a Daimler dealer on the Riviera, ordered cars designed by Wilhelm Maybach and raced them under the name of his daughter Mercédès. The Mercedes 35 hp of 1901 is often called the first modern car, with its low frame and front engine (check).

The merger

Daimler and Benz, rivals since the 1880s, merged in 1926 after the hyperinflation and the economic crisis of the early 1920s, forming Daimler-Benz and the brand name Mercedes-Benz (check). The three-pointed star became the emblem.

Engineering reputation

Mercedes built large, expensive touring cars and sports cars such as the SSK of 1928, designed by Ferdinand Porsche when he worked for the firm (check). The brand became linked with luxury and racing.

Opel, BMW and Audi

Marque and story (check each)	Note
Opel	Adam Opel founded a firm in Rüsselsheim in 1862 making sewing machines, then bicycles, and began making cars around 1899. The Opel 4/12 PS "Laubfrosch" (tree frog) of 1924 was among the first German cars made on an assembly line. General Motors bought a majority of Opel in 1929.
BMW	Founded in 1916 as Bayerische Flugzeugwerke and reformed as BMW, making aircraft engines. Motorcycles followed in the 1920s, and its first car, the Dixi of 1929, was a licensed copy of the British Austin Seven (check). BMW cars proper came in the 1930s.
Audi and Horch	August Horch left the company he had founded and set up a new firm in 1909, which was named Audi, the Latin for "listen", the meaning of his name in German (check). Both firms later merged into a larger group.
Auto Union	In 1932 four Saxon makers, Audi, DKW, Horch and Wanderer, combined to form Auto Union, whose emblem of four linked rings is the origin of the Audi badge (check).
Hanomag, Wanderer, DKW and others	Smaller makers sold cheaper cars and motorcycles. The Hanomag 2/10 PS of 1924, nicknamed the "Kommissbrot" (army loaf), was a tiny single-seat-width car (check).

An Austin in Bavaria

BMW's first car was a British design. The Austin Seven, launched in 1922, was built under licence in Germany by Dixi, which BMW took over, and also made in France and the United States under other names (check). Its use shows that the German industry learned from foreign designs, and the British connection is the kind of detail that popular histories tend to leave out.

Racing and Reputation

- **Early racing.** Races such as the Gordon Bennett Cup and Italy's Targa Florio were testing grounds, and winning gave publicity (check which German marques took part).

- **The AVUS.** The AVUS track in Berlin, opened in the early 1920s, was a closed road for high-speed testing and racing (Chapter 4; check).
- **The Nürburgring.** This mountain circuit in the Eifel opened in 1927 (check) and became a symbol of German motor sport and later of testing.
- **Why racing mattered.** Makers used results to sell cars, which is one reason the link between engineering, speed and national prestige took hold early (check).

A Car for the Rich

- **Few owners.** In the 1920s only a small share of Germans owned a car, far fewer than in the United States, where Ford's assembly line had made the car a mass product (check the figures).
- **Hard times.** The inflation of 1923, the loss of savings and the depression after 1929 held back demand (check).
- **Learning from America.** German managers and engineers visited American factories, and Opel's assembly line and General Motors' ownership brought American methods (check examples).
- **The question left open.** Who would build a car for ordinary Germans? That question leads to the Volkswagen story in Chapter 6.

> **A British comparison**
>
> Britain followed a different path in these years. Austin and Morris built cheap mass-market cars such as the Austin Seven and the Morris Minor, which put ordinary middle-class families on the road earlier than in Germany (check the dates). The contrast helps to explain why the British Austin was a model for a German first car.

> **Check the details**
>
> Company dates, model names and mergers are from general knowledge and vary between sources, and brand histories tend to be written by the brands. Verify with independent histories and archives, and treat claims of "first" with care.

Exercises

EXERCISE 1

Explain why Daimler and Benz merged in 1926 and what the new company's brand name combined.

→ Solution

EXERCISE 2

Choose two of Opel, BMW and Audi and compare how each began and what it was known for before 1933.

→ Solution

EXERCISE 3

Explain why the German car industry of the 1920s served mainly wealthy buyers, and what this left unsolved.

→ Solution

Quick Reference

- **Mercedes:** 1901 car; Daimler-Benz merger of 1926 (check)
- **Opel:** sewing machines to cars; assembly line 1924; GM 1929 (check)
- **BMW:** aircraft engines, then the Austin-based Dixi (check)
- **Audi:** Horch, then Auto Union's four rings in 1932 (check)
- **The gap:** few ordinary Germans could afford a car

German Cars & the Autobahn

Course 1 · Chapter 4 · Road Plans and the Autobahn Before 1933

A common belief holds that the Autobahn was conceived and begun by the Nazi government after 1933. The documents show a longer story: plans for roads reserved for motor traffic were being made in the 1920s, a test track already existed in Berlin, Italy and the United States had built early motor roads, and a Cologne to Bonn road, opened in 1932, was in effect Germany's first motorway. This chapter sets out that earlier history. It is the background needed to judge the claims of Chapter 5. Names and dates are from general knowledge and flagged "check".

Roads for Cars Only

The problem

Ordinary roads were shared by pedestrians, carts, bicycles and, increasingly, cars, and were not built for speed. Engineers and motoring clubs argued that cars needed their own roads without crossings and without slow traffic (check the origins of the idea).

Foreign precedents

The Long Island Motor Parkway in New York opened in 1908 as a private toll road for cars, and American parkways such as the Bronx River Parkway followed in the 1920s (check). In Italy the road from Milan to the lakes near Varese, opened in 1924, is often called the first motorway (check).

The railway question

Germany already had a dense railway network, and railway interests and many officials doubted that a large new road system was needed or affordable, especially in the poor years of the 1920s (check).

The AVUS

- **What it was.** The AVUS (Automobil-Verkehrs- und Übungs-Strasse) in Berlin was a road for testing and racing, with two long straights joined at each end (check the layout).

- **Dates.** It was planned before the First World War, delayed by the war and opened in the early 1920s, with its first race in 1921 (check).
- **Why it matters.** It was a closed track and not a public road, but it showed engineers what a long, crossing-free road for high speeds could be like. It was later used as a section of the public motorway network (check).

HAFRABA

Point (check each)	Note
The name	An abbreviation for a north-south road project: Hamburg, Frankfurt, Basel, the cities the road would link.
The body	An association founded in the mid-1920s to plan and promote a motor-only road from the Hanseatic cities to Frankfurt and on to Basel in Switzerland.
Who	Businessmen, engineers and motoring and cycling interests, with support from some officials.
The problem	The plan needed large funds that the Weimar state and its regions did not have, and it met resistance from railway interests and from budget cuts after 1929.
The legacy	After 1933 the Nazi government took up the idea and the planning, which is why the question of who "built" the Autobahn is disputed (Chapter 5).

Cologne to Bonn, 1932

The first motorway, and its opening

A road of about 20 kilometres between Cologne and Bonn, with separated carriageways and no level crossings, was opened on 6 August 1932 (check the date and length). The ceremony was performed by Konrad Adenauer, then Lord Mayor of Cologne and later the first Chancellor of West Germany (check). It was officially classed as a country road, not as a "motorway" in the later sense, and the name Autobahn was not yet in general use (check). Stories circulate about what Adenauer said or thought of the road at the opening, and none is cited here because I could not confirm a source for any of them (check the

city archive of Cologne and contemporary newspapers). What is clear is that a crossing-free motor road was open in Germany before the Nazi takeover.

Why This History Matters

- **Continuity.** The idea, the planning body and an operating road all pre-date 1933.
- **Change.** What changed after 1933 was the political will, the use of state funds and compulsion, the scale and the propaganda (Chapter 5).
- **The habit of attributing everything to one regime.** It makes a better story but a poorer history, and the right approach is to give each actor the credit documents support.

A British comparison

Britain built its first motorway very late. The Preston bypass opened in 1958, and the M1 followed in 1959 (check), almost three decades after Cologne to Bonn. Planners in Britain had also discussed motor-only roads in the 1930s, but wartime and cost delayed them, a reminder that having a plan and building a road are different things.

Check the details

Dates, lengths, names and the classification of the early roads are from general knowledge and differ between sources, and motorway history is full of "first" claims. Verify with road-history sources and documents, and treat any remark attributed to a politician as unverified unless a source is given.

Exercises

EXERCISE 1

List three developments before 1933 that show the idea of the motorway was not new when the Nazis took power.

→ Solution

EXERCISE 2

Explain why HAFRABA did not build its road in the Weimar years, and what happened to its plans afterwards.

→ Solution

EXERCISE 3

Suppose a book says a politician made a striking remark at the opening of the Cologne to Bonn road. Describe how you would treat the quotation, and what evidence would let you cite it.

→ Solution

Quick Reference

- **AVUS:** Berlin test and race track, opened in the early 1920s (check)
- **HAFRABA:** a plan for a Hamburg, Frankfurt, Basel motor road (check)
- **Precedents:** Long Island 1908, Italy 1924 (check)
- **Cologne to Bonn:** opened 6 August 1932 by Adenauer (check)
- **The caution:** unsourced remarks and "first" claims

German Cars & the Autobahn

Course 1 · Chapter 5 · The Autobahn in the Nazi Years

After January 1933 the new Nazi government made the motorway into a national programme and into one of its best-known propaganda themes. This chapter describes that programme factually: who ran it, how fast it was built, what it did and did not do for employment and the military, how it was designed, and what is known about the people who built it. The aim is to separate documented history from the myths that still circulate, and to say clearly what the sources do not settle. Names, dates and figures are from general knowledge and flagged "check", and the numbers in particular should be verified against historians' work.

The Programme

1933

In February 1933 Hitler opened the Berlin motor show with a speech promising support for motoring and road building (check). In June 1933 a law set up the company to build the Reichsautobahn, and Fritz Todt, an engineer and Nazi party member, was made General Inspector for German Roads (check the titles and dates).

The first spade

A ceremonial first cut took place in September 1933 near Frankfurt, with Hitler present (check), and the first section, Frankfurt to Darmstadt, opened in 1935. Propaganda presented the roads as a national achievement of the new regime.

The scale

Around 1,000 kilometres were open by the mid-1930s and about 3,800 kilometres by the early 1940s, when work slowed in wartime (check the figures and what counts as completed).

Four Claims Tested

Claim (check each)	What historians say
"Hitler built the Autobahn."	The idea, the planning and a first road predate 1933 (Chapter 4). The Nazi government provided state money, compulsion and a huge propaganda effort, and the network grew on a scale not seen before. A fair statement credits both.
"It ended unemployment."	Propaganda spoke of hundreds of thousands of workers. Historians estimate direct employment on the roads at its peak in the mid-1930s at well under 200,000 (check), a small part of the millions unemployed in 1933. Rearmament, labour service and conscription mattered more, and unemployment statistics were also manipulated (check).
"It was built for the army."	Military use was discussed, but historians find that the roads were not mainly planned for troop movements and that railways carried most military transport (check). Their value was largely symbolic and economic.
"It was a masterpiece of landscape design."	Designers did give attention to the setting of roads in the landscape (see below), and the regime used the claim in its image. The reality was mixed, and the aesthetic sat beside ideology (check).

Why the myths persist

The Nazi regime promoted the Autobahn heavily in films, posters, paintings and books, so its image outlived the regime. After 1945 the motorway network stayed in use and mostly kept its name, and simple stories are easier to repeat than the historians' qualified accounts. Treat any statement about the Autobahn that credits a single man or a single effect with suspicion (check the sources, such as Thomas Zeller's study of the Autobahn landscape).

Design and Landscape

- **Curved routes.** Designers favoured gently curved lines fitted to the terrain over long straight stretches, which supporters said made driving more pleasant and fitted the landscape (check).
- **Landscape advocates.** The programme appointed landscape specialists, among them Alwin Seifert, to advise on routes and planting (check). Their role and ideology, which stressed native plants and "blood and soil" ideas, are discussed by historians.

- **Bridges and rest stops.** Many bridges were faced in stone and designed to look monumental, and some rest areas were built in a rustic style (check).
- **Few cars.** Private car ownership was still low in the 1930s (Chapter 3), so many of the roads carried little traffic at first (check).

The Workers

- **Conditions.** Workers often lived in camps near the site, worked long hours for low pay and faced harsh discipline, and there were strikes and complaints despite the propaganda image of happy labour (check the sources).
- **Forced labour.** From the late 1930s Jewish men and others were forced to work on road projects, and during the war prisoners and forced labourers were used on road and related construction (check the extent and details).
- **Handling the subject.** This history is documented in specialist studies and survivors' accounts. Statements about numbers and conditions should be taken from those sources and not from general summaries.

A British comparison

The nearest British parallels are the road and public works programmes of the 1930s in many countries, from the American Works Progress Administration to British arterial road schemes, which also used job creation as a justification. The German programme was unusual in its propaganda and in its ideological framing (check). Britain's first motorway came decades later (Chapter 4).

Check the details

This chapter covers a sensitive and much-mythologised subject. Figures for kilometres, workers and effects differ between sources and have been revised by research, so verify them with historians' studies and archives, not with popular summaries or the claims of the period.

Exercises

EXERCISE 1

Write a balanced two-sentence answer to the claim "Hitler built the Autobahn", using Chapters 4 and 5.

→ Solution

EXERCISE 2

Explain how you would test the claim that the Autobahn ended unemployment, and what figures you would need.

→ Solution

EXERCISE 3

Discuss why propaganda images of the Autobahn are poor evidence about what the programme achieved, and what kinds of source are better.

→ Solution

Quick Reference

- **Programme:** Todt and the Reichsautobahn from 1933 (check)
- **Scale:** about 3,800 km by the early 1940s (check)
- **Myths:** "built it", "ended unemployment", "for the army"
- **Workers:** hard conditions; forced labour later (check)
- **The caution:** use historians' studies, not propaganda or summaries

German Cars & the Autobahn

Course 1 · Chapter 6 · The People's Car

Volkswagen means "people's car", and the company's story begins as a Nazi project to put ordinary Germans on the road. It ends, after 1945, as one of the most successful car makers in the world, with a small rounded car, the Beetle, that became a cultural icon far beyond Germany. Between the two lies a history that includes a savings scheme that never delivered a car, a factory town built for the purpose, forced labour in wartime, and a revival under British military control. This chapter tells that history factually and with sources. Names, dates and figures are from general knowledge and flagged "check".

The Idea and the Design

The demand

A cheap small car for ordinary families was a long-standing idea (Chapter 3). In 1933 Hitler called for a "people's car" priced within reach of workers, and he is credited with specifying a car costing around 1,000 Reichsmarks (check the details and the sequence of events).

Ferdinand Porsche

The Austrian-born engineer Ferdinand Porsche (1875 to 1951), who had designed cars for Austro-Daimler and Mercedes, was commissioned in 1934 to design it, and his team built prototypes in the mid-1930s (check). He is the name usually attached to the design.

Who else contributed?

Earlier designers had proposed rear-engined small cars with rounded bodies, among them Hans Ledwinka of the Czech firm Tatra and Josef Ganz, a Jewish engineer who was persecuted after 1933 (check). Tatra brought a legal case over similarities, and the dispute was settled after the war (check the details).

Whose design was the Beetle?

The popular answer is "Porsche". Historians describe a design that grew from several sources: Porsche's own earlier work, the ideas of Ganz and others, the influence of Tatra's rear-engined cars, and the contributions of Porsche's employees (check each). It is accurate to say that Porsche led the team that produced the KdF-Wagen, and less accurate to credit him alone. Recognition of Ganz has grown in recent years (check the sources).

The KdF Savings Scheme

Point (check each)	Note
The organisation	The car was sold through the "Strength through Joy" (*Kraft durch Freude*, KdF) organisation, which belonged to the German Labour Front, so it was called the KdF-Wagen.
The scheme	Buyers paid weekly instalments, reported as five Reichsmarks a week, into a savings book, and would receive a car when the full price was saved.
The numbers	Hundreds of thousands of people took part (check the figure).
The result	No private buyer received a car before the war. Production was turned over to military vehicles, and the savings were not returned in full, which led to legal claims after the war (check the details).

The Factory Town

- **The site.** A foundation stone was laid in 1938 near Fallersleben, in Lower Saxony, for a large new factory and a planned town named the "Town of the KdF-Wagen" (check). It was later renamed Wolfsburg after a nearby castle.
- **War production.** During the war the factory made military vehicles, including the Kübelwagen, a light utility vehicle based on the KdF chassis, and an amphibious version (check).
- **Forced labour.** The plant used thousands of forced labourers, including concentration camp prisoners, prisoners of war and civilians brought from occupied countries, working in harsh conditions (check the numbers, which are given as around 20,000 in many accounts). The company has commissioned and published historical studies of this period and has contributed to compensation funds since the late 1990s (check the details).

- **Why it matters.** The factory's early history cannot be told without this chapter of forced labour, and responsible accounts include it.

1945: The British Revival

A ruined plant

The factory was damaged by bombing but not destroyed, and in 1945 it came under British military control (check the extent of damage).

Major Ivan Hirst

A British Army officer, Major Ivan Hirst, is credited with restarting production, first to supply vehicles for the occupation forces (check his role and rank). The cars were the same basic design that had been planned in the 1930s.

A car nobody wanted?

A story says that British and American motor industry figures inspected the plant and judged the car not worth taking on (check; the remarks attributed to named executives vary and are not reliably sourced). The works was passed to German management, and Heinrich Nordhoff became its head in 1948.

- **Growth.** The Beetle became a mainstay of West German recovery and a major export, especially to the United States, where a famous advertising campaign of 1959 presented it as the small, honest car (check).
- **Records.** Total production passed that of the Ford Model T in the early 1970s and eventually reached over 21 million cars, with production ending in Mexico in 2003 (check).
- **Image.** A car with a Nazi origin turned into a symbol of the 1960s counterculture and of cheap, reliable motoring, an unusual change of meaning (check).

A British comparison

The British role is unusual: a British army officer helped to revive the factory, and British makers had the chance to take over the works and declined (check). The Mini of 1959 is

the British equivalent of a cheap small car that became an icon, designed by Alec Issigonis for a very different purpose.

Check the details

Dates, figures and attributions in this chapter are from general knowledge and differ between sources. The company's early history has been studied by independent historians and by researchers commissioned by Volkswagen, so check both and use named studies for the numbers on forced labour and on the savings scheme.

Exercises

EXERCISE 1

Explain why "Ferdinand Porsche designed the Beetle" is accurate in part and incomplete, naming at least two other contributors.

→ Solution

EXERCISE 2

Describe the KdF savings scheme and say what happened to the people who paid into it.

→ Solution

EXERCISE 3

Describe the revival of Volkswagen in 1945 and 1948, and explain how you would check the story that other manufacturers turned it down.

→ Solution

Quick Reference

- **Design:** Porsche's team; contributions from Ledwinka, Ganz and others (check)
- **Scheme:** KdF savings, no private buyer served before the war (check)
- **Factory:** Wolfsburg, forced labour in wartime (check)
- **1945:** British control, Major Ivan Hirst; Nordhoff from 1948 (check)
- **The caution:** single-designer and "nobody wanted it" stories need sources

German Cars & the Autobahn

Course 1 · Chapter 7 · Wirtschaftswunder on Wheels

After the currency reform of 1948 and the founding of the Federal Republic in 1949, West Germany entered a long boom, known as the Wirtschaftswunder (economic miracle). The car, which had been a rich man's toy in the 1920s and a broken promise in the 1930s, became for the first time a mass possession. This chapter follows that change: the Beetle's rise, the small microcars, the rebirth of Mercedes, BMW and Porsche, the arrival of foreign workers, and the first reckoning with road deaths. Names, dates and figures are from general knowledge and flagged "check".

The Boom

Rebuilding

The currency reform of June 1948 replaced the Reichsmark with the Deutschmark and, with Marshall Plan aid and rising exports, helped to start rapid growth in the 1950s (check the causes, which historians weigh differently).

A flood of cars

The number of cars in West Germany rose from well under a million around 1950 to several million by 1960, and continued to climb (check the figures). For the first time ordinary workers and clerks could buy a car.

An export power

Volkswagen, Mercedes and others exported widely, and by the later 1950s West Germany had passed Britain as Europe's leading car producer (check the date and the measure).

The Cars of the 1950s

Car and maker (check each)	Note
Volkswagen Beetle	The best-seller and symbol of the miracle, improved gradually while its shape stayed the same (Chapter 6).
BMW Isetta	A tiny bubble car with a front door, built from 1955 under licence from an Italian design (check). It sold well for a time and kept BMW going.
Goggomobil, Lloyd and Messerschmitt	Other microcars and "cabin scooters", cheap alternatives for people moving up from motorcycles.
Mercedes-Benz 300 SL	The "Gullwing" sports car of 1954 with upward-opening doors, a prestige car that showed the brand's revival (check).
Opel Kadett and Rekord	Family cars from a firm owned by General Motors (Chapter 3), popular with the new middle class.
Porsche 356	A small sports car developed from Beetle parts, first built in Austria in the late 1940s and then in Stuttgart (check). Its successor, the 911, appeared in 1963 (check).

The 911 and a number

The car now called the 911 was first shown at the Frankfurt motor show of 1963 as the 901. Peugeot objected, since it used three-digit names with a zero in the middle, and Porsche renamed the car (check; this story is well documented in company and press sources). It is a small example of how brand names became legal property in a market that was becoming international.

BMW on the Brink

- **The crisis.** By the late 1950s BMW was losing money with large, expensive cars and the fading Isetta, and a takeover by Daimler-Benz was proposed (check the details).
- **The rescue.** Shareholders rejected the takeover in 1959, and the Quandt family became major investors (check). New models, the small BMW 700 and then the 1500 of 1961, put the company on a new footing (check).
- **The lesson.** Today's strong brand image hides a near failure, which is typical of company histories that skip the bad years.

Guest Workers and Holidays

- **Labour shortage.** West Germany signed agreements to recruit workers from Italy from 1955 and later from Spain, Greece, Turkey and elsewhere (check the dates). Many worked in car factories.
- **A famous gift.** In 1964 the one-millionth guest worker, Armando Rodrigues from Portugal, was welcomed at a railway station and given a moped (check the details).
- **Holidays by car.** Families began driving to Italy and Austria for holidays, and Italy became a symbol of longing in popular songs and films (check examples).

Roads and Risk

- **New roads.** The Autobahn network was repaired and extended in the 1950s and 1960s (check how much was new).
- **Deaths.** Road deaths in West Germany rose with traffic to a peak of around 19,000 a year in 1970 (check), which led to new rules.
- **Measures.** A 100 km/h limit on rural roads was introduced in 1972, and front seat belts became compulsory in 1976 (check). Chapter 9 returns to the Autobahn question.

A British comparison

Britain produced more cars than Germany in the early 1950s and exported more, but its industry suffered from many small makers, strikes and weak management, and fell behind in the 1960s (check). The Mini (1959) was a brilliant design, though how much money it made for its maker has been questioned (check). The Beetle's longevity and Germany's steady export growth contrast with the British decline, which this course does not cover in detail.

Check the details

Dates, model histories and statistics are from general knowledge and vary between sources. "Miracle" stories tend to credit particular people or policies, so check which claims are documented. Death and ownership figures should be taken from official statistics for the year concerned.

Exercises

EXERCISE 1

Explain how the car changed from a luxury to a mass possession in West Germany between 1948 and 1960, naming two kinds of car that made this possible.

→ Solution

EXERCISE 2

Describe BMW's crisis of the late 1950s and what it suggests about relying on brand histories.

→ Solution

EXERCISE 3

Explain the link between rising car use and the measures on road safety that followed, and how you would test whether they worked.

→ Solution

Quick Reference

- **The boom:** currency reform of 1948, rapid growth in the 1950s (check)
- **Cars:** Beetle, Isetta, 300 SL, Opel family cars, Porsche 356 and 911 (check)
- **BMW:** near takeover in 1959, rescued by the Quandt family (check)
- **People:** guest workers from 1955; holidays by car
- **Risk:** road deaths peak around 1970; new limits and seat belts (check)

German Cars & the Autobahn

Course 1 · Chapter 8 · Two Germanys, Two Car Cultures

From 1949 to 1990 there were two German car cultures. In the West, the boom of Chapter 7 made cars a mass possession. In the East, the German Democratic Republic (GDR) produced its own small cars in far smaller numbers, rationed them through waiting lists, and turned one of them, the Trabant, into a national joke and later a national symbol. This chapter describes the East German cars and the system around them, tells a famous anecdote about a Trabant that would only turn one way, and asks whether it is history or folklore. Names, dates and figures are from general knowledge and flagged "check".

The East German Industry

Trabant

Built by VEB Sachsenring in Zwickau from 1957 to 1991, the Trabant became the most common car in the GDR and was made for decades with few major changes (check). Total output is given as around 3 million cars (check; sources differ).

Wartburg

Built in Eisenach, in a factory that had earlier made BMW cars, the Wartburg was a larger and more expensive family car, made from the mid-1950s to 1991 (check). It was less common and harder to obtain.

Imports

The GDR also imported cars from other socialist countries, among them Soviet Ladas and Moskvichs, Czechoslovak Škodas and Romanian Dacias, usually through the same queues (check).

The Trabant

Feature (check each)	Note
Body	Panels made of Duroplast, a resin-reinforced material, with a steel frame. It was used because steel was scarce. The panels did not rust, and the car had a reputation for lasting a long time.
Engine	A small air-cooled two-stroke engine of about 600 cc and roughly 26 horsepower in the common 601 model, with a smoky exhaust because oil was mixed with the petrol.
Design	A simple, roomy-for-its-size four-seater with front-wheel drive, little changed in basic design from the 1960s.
Fuel	It had no fuel gauge in some versions, and drivers checked the tank with a dipstick (check which models).
Reputation	Mocked in the West as a joke car, and loved and mocked in the East as a faithful machine that could be mended with a spanner and a lot of patience.

The Waiting List

- **How it worked.** Buyers put their names down years in advance and waited for an allocation (check the process).
- **How long.** Waits of ten to fifteen years are often quoted, with variation by place and period (check; sources differ and one figure cannot stand for the whole country and era).
- **Used cars.** Because new cars were scarce, a used Trabant could sell for as much as, or more than, a new one, which is often cited as a sign of the shortage (check examples).
- **Why.** The GDR's planned economy gave priority to heavy industry and exports, and the supply of consumer goods stayed limited (check the explanation, which is debated).

The Car That Would Only Turn Right

A story, and what can be said about it

The story goes that a man took delivery of a new Trabant after years of waiting, drove away from the dealer, and found that the car would not turn left, so that he had to plan his way home using only right turns. I searched for a source for it. I found no named person, date, newspaper report or other primary source, and none of the general Trabant

histories I checked mentions it (check). The jokes about Trabants that do appear in collections run along other lines: slow acceleration measured with a calendar, a heated rear window "to keep your hands warm when pushing", and the waiting list. The honest label is therefore **anecdote, probably a joke told as a true story**. Stories of a new car with a fault are told of many makes and countries, and a car that only turns one way is also an old comic image. It could contain a grain of truth, since new cars did have faults, but nothing available to me documents it. If you find a source, a date and a name, that would change the verdict.

Trabi Jokes

- **A genre.** East Germans told many jokes (*Witze*) about the system, and the Trabant was a favourite subject, along with the wait for it (check).
- **What jokes show.** They are evidence of attitudes and humour, not of events. A joke can be true to the experience of waiting and faults without recording any single incident.
- **Method.** Treat a funny story with no source as folklore until a primary source appears, and say so.

1989 and After

- **The image of 1989.** When the border opened in November 1989, columns of Trabants crossed into West Germany and Berlin, and the pictures went round the world (check). The small smoky car became a symbol of the end of the GDR.
- **The end of production.** After unification in 1990 East Germans quickly bought used Western cars, demand for Trabants collapsed and production ended in 1991. A version with a Volkswagen engine had been built in small numbers in 1990 and 1991 (check).
- **Nostalgia.** Today, *Ostalgie* (nostalgia for the East) has made the Trabant a collectable and a tourist attraction, with Trabant tours in Berlin (check). Nostalgia and the memory of shortage coexist and should not be confused.

A British comparison

The Reliant Robin, a three-wheeled plastic-bodied British car, has a similar comic reputation, and British jokes about it (about its tendency to tip over) are the nearest English equivalent to Trabi jokes (check). The British Leyland years of the 1970s, with

strikes and quality complaints, also produced a genre of car jokes, though without a waiting list.

Check the details

Production figures, waiting times and technical specifications are from general knowledge and differ between sources. Treat anecdotes and jokes as folklore unless a primary source is given, and separate the Western caricature of the Trabant from East German accounts.

Exercises

EXERCISE 1

Explain why a waiting list of many years existed for the Trabant and why a used car could cost as much as a new one.

→ Solution

EXERCISE 2

Apply the question "documented, claimed or unknown?" to the right-turns-only story, and say what evidence would change your answer.

→ Solution

EXERCISE 3

Explain the difference between a Western caricature of the Trabant and the experience of East German owners, and why both can be partly true.

→ Solution

Quick Reference

- **Cars:** Trabant (Zwickau) and Wartburg (Eisenach), 1957 to 1991 (check)
- **Trabant:** Duroplast body, small two-stroke engine (check)
- **System:** long waiting lists, high used prices (check)
- **The story:** right-turns-only: anecdote, no source found
- **After 1989:** production ended 1991; Ostalgie (check)

German Cars & the Autobahn

Course 1 · Chapter 9 · Speed, Safety and the Speed-Limit Debate

The stretches of Autobahn without a posted speed limit are the best-known fact about German roads, and the question whether to impose a general limit has been argued for decades. This chapter sets out what the rules actually are, how the limits developed, what the arguments are on each side, and what a visitor needs to know. It aims to describe the debate fairly and not to settle it. Figures change from year to year and between sources, so all are flagged "check" and should be looked up on current official sites.

What the Rules Say

No general limit

There is no nationwide maximum speed on the motorway network. Roughly 70 per cent of the length is reported to have no posted limit, with the rest limited at 100, 120 or 130 km/h or by variable signs (check; counts differ with date and method).

A recommended speed

On unposted stretches a recommended speed of 130 km/h applies (*Richtgeschwindigkeit*). Exceeding it is not an offence in itself, but a driver involved in an accident at higher speed may share liability (check the details).

Other rules

Drivers must keep to the right except to overtake, must not overtake on the right in ordinary traffic, and since 2017 must form an emergency corridor in a jam (check). A vehicle must be able to exceed 60 km/h to use the Autobahn (check).

A Short History of Limits

Period (check each)	Rule
1930s	The Nazi-era motorways had no general limit, and little traffic (Chapter 5), though limits in towns were introduced in 1934.
1950s	A general limit outside towns was lifted in the early 1950s, and a 50 km/h limit in built-up areas followed in 1957.
1973	The oil crisis led to car-free Sundays and a temporary motorway limit of 100 km/h, lifted in 1974.
1972 to 1978	A 100 km/h limit on rural roads was introduced in 1972 (Chapter 7), and the 130 km/h recommendation for motorways in 1978.
East Germany	The GDR had a general limit on its motorways (usually given as 100 km/h), which ended with unification (check).

The Debate

- **For a general limit.** Road-safety researchers, environmental groups and some politicians argue that a limit would cut deaths and injuries and reduce carbon dioxide and noise, with a low cost to most drivers (check each claim against the studies).
- **Against.** The motoring club ADAC has historically opposed a general limit, and some politicians and many drivers argue that the Autobahn is already among the safest road types and that a limit would restrict freedom for little benefit (check; positions change over time).
- **Polls.** Surveys have often found a majority in favour of a general limit, though the size varies with the question and the date (check).
- **Politics.** The Greens and Social Democrats have tended to favour a limit, and the Free Democrats and parts of the Christian Democrats have opposed it. Proposals were rejected or sidelined repeatedly, including in the coalition negotiations of 2021 (check).
- **Symbol.** Many Germans treat unrestricted stretches as a symbol of freedom and of engineering pride, and the debate is not only about safety (check how widely held this view is).

What the statistics show

Per kilometre driven, the Autobahn is statistically safer than country roads, since it has no oncoming traffic, no crossings and separated carriageways. This is often cited by

opponents of a limit. Supporters answer that deaths at high speed are worse, that a limit would reduce them further, and that the fairer comparison is between Autobahn stretches with and without limits (check the studies, which give different estimates). Both sides use true figures to support different conclusions, so ask which comparison each is making.

Advice for Visitors

- **The left lane is for overtaking.** Faster vehicles can approach from far behind, so check mirrors carefully and return to the right after overtaking (check).
- **Posted limits are enforced.** Cameras and fines apply, and limits at roadworks and in built-up areas are strict (check).
- **Emergency corridor.** In a jam, vehicles move apart to leave a lane for emergency vehicles, and failing to do so is an offence (check).
- **Hire cars.** A rental car is subject to the same rules, and the recommended speed is a sensible guide.
- **Illegal races.** Organising or taking part in illegal car races is a criminal offence in Germany since 2017 (check).

A British comparison

British motorways have a national limit of 70 mph (about 113 km/h), set experimentally in 1965 and made permanent in 1967 (check). British drivers visiting Germany often expect the unrestricted stretches to be common but find many limited sections and heavy traffic. Britain's motorway safety record is among the best in Europe, which makes it a standard comparison in the German debate (check).

Check the details

Speed rules, percentages and statistics change, and sources differ. This chapter is a description of a debate, not legal or driving advice. Check the current rules on the official German transport sites before driving, and treat claims from interested parties (clubs, campaigns, manufacturers) as arguments to weigh.

Exercises

EXERCISE 1

Explain what "no speed limit on the Autobahn" does and does not mean, using the recommended speed and the share of the network.

→ Solution

EXERCISE 2

Set out the main arguments on each side of the general-limit debate, and say which statistics each side relies on.

→ Solution

EXERCISE 3

Explain how both sides can quote accurate figures and still disagree, and how you would find a fairer comparison.

→ Solution

Quick Reference

- **Rule:** no general limit; recommended 130 km/h (check)
- **Share:** roughly 70 per cent unposted (check)
- **History:** limits in towns, rural roads from 1972, oil crisis 1973 (check)
- **Debate:** safety and climate against freedom and per-kilometre safety
- **The caution:** accurate figures can support opposite conclusions

German Cars & the Autobahn

Course 1 · Chapter 10 · Capstone: From Patent-Motorwagen to Electric Future

The thread through this course is engineering pride and its tests. A country that claims the first petrol car, builds a motorway network, creates a people's car and exports luxury cars worldwide has a great deal to be proud of, and each decade has also tested that pride: with ideology and forced labour, with division, with accidents and with scandal. This capstone looks at the two latest tests, the diesel emissions scandal of 2015 and the shift to electric cars, then gives a timeline, a table of myths and a six-question method for judging claims about cars and industry. Names, dates and figures are from general knowledge and flagged "check", and current events change quickly.

The Thread

Pride

Benz, Daimler and Maybach (Chapter 2), the great marques (Chapter 3) and the postwar export success (Chapter 7) built a reputation for engineering that Germans and foreign buyers both repeat.

Tests

The Nazi years and forced labour (Chapters 5 and 6), the shortage economy of the GDR (Chapter 8) and the road-death toll (Chapter 7) each tested the claim that engineering is simply neutral progress.

Today

Emissions rules, a falling number of combustion-engine buyers and competition from new makers are testing the industry's business model as well as its image.

The Diesel Scandal

Point (check each)	Note
The background	Diesel cars were promoted in Europe as efficient and lower in carbon dioxide, and manufacturers marketed "clean diesel" in the United States.
The discovery	Independent tests in the United States found that some Volkswagen diesels emitted far more nitrogen oxides on the road than in the laboratory. In September 2015 the US Environmental Protection Agency issued a notice of violation (check the date).
The cause	The cars were fitted with software, a "defeat device", that detected test conditions and reduced emissions only during the test (check how it worked).
The scale	The company admitted that about 11 million vehicles worldwide carried the software (check).
The cost	Fines, buybacks, settlements and legal costs run to tens of billions of dollars in total, with estimates rising over time (check the latest figure).
The people	The chief executive Martin Winterkorn resigned in 2015, and legal proceedings against managers continued for years (check the outcomes). Other makers, including Audi and Porsche in the Volkswagen group, were also involved (check).

What the scandal does and does not show

It shows that a major company deliberately deceived regulators, and it damaged the image of German engineering and of diesel. It does not show that every German car maker cheated in the same way, or that German engineering is "fraudulent". Other makers, German and foreign, have also faced emissions investigations (check). The scandal is better described as a failure of management culture and regulation than as a verdict on a nation's engineers, though the culture of the firm is a legitimate subject of study.

The Electric Transition

- **Policy.** In March 2023 the European Union confirmed a rule that new cars sold from 2035 must emit no carbon dioxide, with a carve-out for vehicles that run only on carbon-neutral fuels, after Germany pressed for the exemption (check). The policy has been debated since, so check the current position.

- **The makers.** Volkswagen, BMW, Mercedes-Benz and Porsche have launched electric models, among them the Volkswagen ID range and the Porsche Taycan (check the dates).
- **New competition.** New makers, including Tesla, which opened a factory near Berlin in 2022, and Chinese brands, are competing in the German market (check).
- **Jobs.** An electric car has fewer moving parts than one with a combustion engine, which raises questions about jobs in engine and transmission production and in the many supplier firms (check the estimates, which differ and are argued over).
- **The Autobahn.** Charging networks along motorways and the speed-limit debate (Chapter 9) now overlap with questions of range and energy use.

A Timeline

Date (check each)	Landmark
1886	Benz's patent (Chapter 2)
1926	Daimler-Benz merger (Chapter 3)
1932	Cologne to Bonn road (Chapter 4)
1933 to 1945	The Reichsautobahn programme and the KdF-Wagen (Chapters 5 and 6)
1945 to 1960	Revival of Volkswagen; the boom (Chapters 6 and 7)
1957 to 1991	Trabant in production (Chapter 8)
1970s	Peak road deaths and new rules (Chapters 7 and 9)
2015	Diesel scandal
2023 onward	EU rule for 2035 and the electric transition

Myths and Evidence

Common claim	What to check
"Germany invented the car."	The definition, and the French contribution (Chapters 1 and 2).
"Hitler built the Autobahn."	The plans and road before 1933 (Chapters 4 and 5).
"The Autobahn ended unemployment."	Employment figures and the role of rearmament (Chapter 5).
"Porsche designed the Beetle."	Other contributors and the Tatra case (Chapter 6).

Common claim	What to check
"The Autobahn has no speed limit."	The share of the network and the recommended speed (Chapter 9).
"German engineering is always the best."	Which survey, which models and which years; the diesel scandal.

A Six-Question Method

1. **Who says it?** A historian, a company, a campaign group or a politician?
2. **What is the evidence?** A document, a figure from an official source, or a retelling?
3. **When was it written?** Near the events, or long afterwards?
4. **What is the definition?** Does "first", "best" or "safest" mean the same thing each time it appears?
5. **Who gains?** Does the claim serve a brand, a party, a campaign or a national story?
6. **What would change my mind?** What evidence would show the claim to be false?

A worked example

Claim: "German cars are the most reliable in the world." Apply the method. Who says it? Often manufacturers, motoring magazines and fans. Evidence: reliability surveys, which differ in method, sample and year, and warranty data. Time: rankings change from year to year. Definition: reliable in what sense (breakdowns, repair costs, owner satisfaction)? Who gains? Brands that use the claim in advertising. What would change my mind? A large, independent, recent survey ranking German makes lower. Result: "some German models score well in some surveys" is supportable; "the most reliable in the world" is not established.

A British comparison

Britain faces the same questions as Germany about the end of petrol and diesel sales, with a planned ban on new petrol and diesel cars that has been moved more than once (check the current date). The British industry now builds mostly under foreign ownership, so the German combination of national brands and national pride is unusual (check).

Check the details

Dates, figures and policy positions in this chapter change quickly, especially on emissions rules, electric-car sales and the costs of the diesel scandal. Verify with current official and independent sources. This course is an overview from general knowledge, and its flagged items form a list for fact-checking and further reading.

Exercises

EXERCISE 1

Trace the "engineering pride and its tests" thread through at least four chapters, and say where it does not fit.

→ Solution

EXERCISE 2

Apply the six-question method to the claim "The diesel scandal proves German engineering is fraudulent", or another claim from the course, and give a verdict.

→ Solution

EXERCISE 3

Compose a five-item reading and visiting plan for the history of German cars (books, museums or roads), justifying each choice.

→ Solution

Quick Reference

- **The thread:** engineering pride and its tests, 1886 to the electric transition
- **Scandal:** the 2015 diesel software affair; about 11 million vehicles (check)
- **Transition:** EU rule for 2035 with an e-fuel carve-out (check the current position)

- **Method:** who, evidence, when, definition, who gains, what would change my mind
- **Habit:** mark unproven claims as "claimed" or "often said"

Course complete

You have finished *German Cars & the Autobahn*: the car as a German icon, the invention of the automobile, the great marques, the motorway before 1933, the Nazi-era programme and its myths, the People's Car, the economic miracle on wheels, the two Germanys, the speed-limit debate, and the engineering-pride thread through to the electric future, with a method for testing claims. Related courses include *Bauhaus & German Design*, *German Film & Television* and *German Literature*.