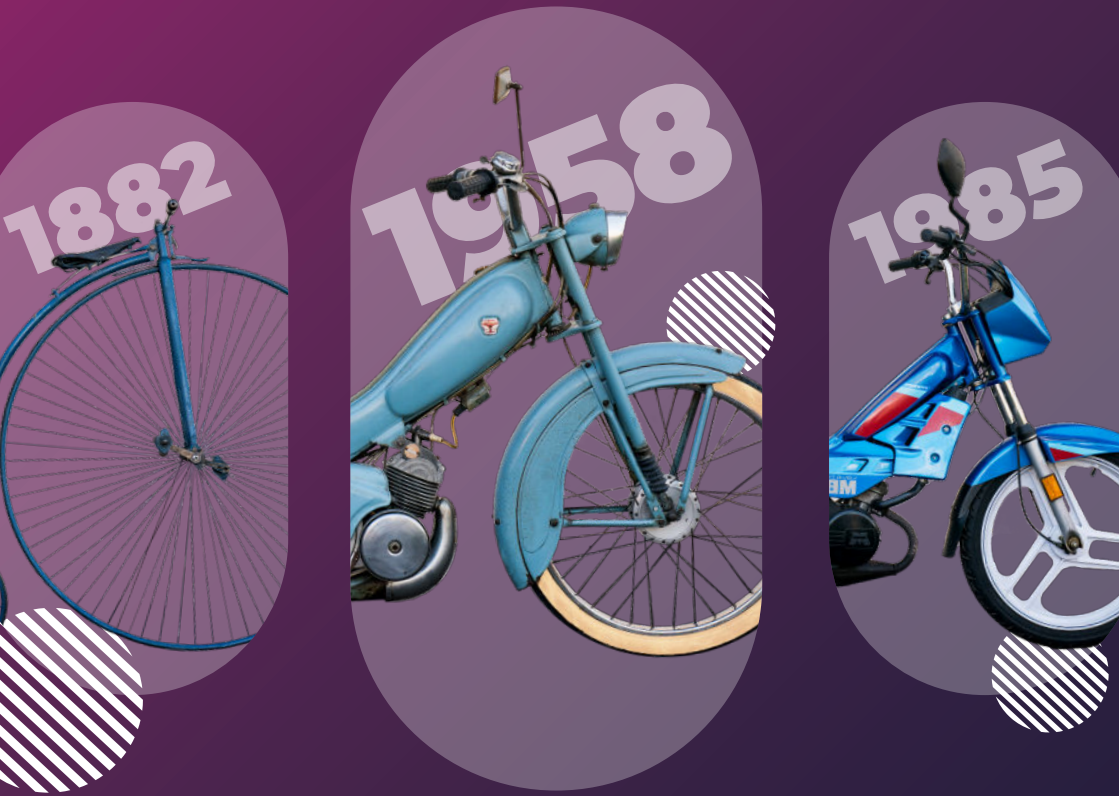
La Grange Bécanes

Mulhouse Alsace Agglomération

DU CYCLE AU CYCLOMOTEUR

EXHIBITION UNTIL NOVEMBER 2ND



Dive into the **history of motorcycles** from the **invention of bicycles.**

Introduction

La Grange à Bécanes - Collection Lemoine explores the history of motorbikes since the invention of bicycles in partnership with the National Automobile Museum – Collection Schlumpf and the Friends of the Motorbike Museum.

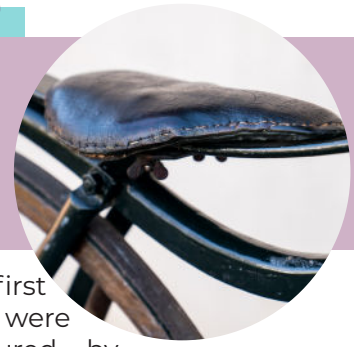
Bicycles were invented in the early 19th century. Whilst industrial development was in full swing in European countries, engineers were working hard on engine specifications and the first motorised bicycles appeared on the scene. Fuelled by international competition by manufacturers and bike races, motorised bicycles became a social phenomenon in the second half of the 19th century.

The brothers Eugène and Michel Werner trademarked "Motocyclette" (motorcycle) in 1897. A 20th century cult item was born! The piston engine became the norm. There were up to a million riders and bicycles became widespread in the city and countryside alike. Brands designed and sold more and more reliable models.

Motorised bicycles with an engine size of up to 50cc have been a real success. They are sturdy, inexpensive and have provided generations of riders, primarily between 1960 and 1990, with affordable and easy-to-use transport. Modern scooters may have taken over from motorised bicycles, but they remain a French heritage icon.

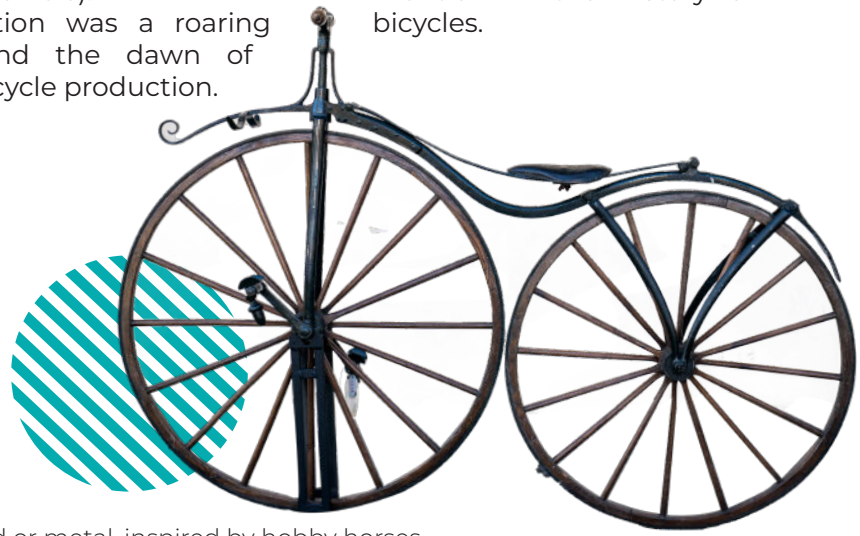
Michaudine velocipede

France, 1867
Inv. 2022.0.242
Loaned by the National Automobile Museum, Collection Schlumpf – Mulhouse



The Michaudine is a velocipede invented in the 19th century and often seen as the forefather of the modern bicycle. It's named after Pierre Michaux, a French wheelwright who was one of the first people to think of adding pedals to a dandy horse (foot-propelled vehicle).
The invention was a roaring success and the dawn of modern bicycle production.

The first models were manufactured by Michaux et Cie, founded in 1865. The Michaudine may have soon been replaced by the penny-farthing then the chain-driven bicycle, but it remains a pivotal invention in the history of bicycles.



Frame: wood or metal, inspired by hobby horses

Front wheel: similar size to the rear wheel

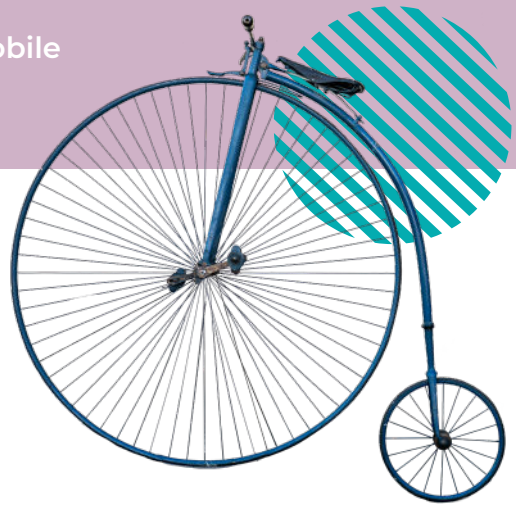
Transmission: front-wheel drive

Brakes: very basic, often using a lever with a pad to generate friction on the wheel

Comfort: very limited because roads were paved back then and the frame was rigid

HUMMEL penny-farthing

Germany, 1882 • Inv. 2022.0.244
Loaned by the National Automobile Museum, Collection Schlumpf Mulhouse



This penny-farthing was designed by Gustav Hummel, a bicycle manufacturer in 19th century Stuttgart. The penny-farthing is a bicycle that appeared in the 1870s with its signature large front wheel and small rear wheel. It marked a turning point in the evolution of bicycles and the modern bicycle as we know it today.
It was designed by a British engineer called James Starley in 1870 Britain. The increased diameter of the front wheel helps riders go faster: the bigger the wheel, the more distance each rotation of the pedal covers.

It was very popular among young athletes and aristocrats, but it was difficult to handle and dangerous due to the height and risk of toppling forwards.

The chain-driven safety bicycle with wheels of the same size replaced the penny-farthing in the 1890s.
It may not have been able to compete in terms of technology, but the penny-farthing remains an icon of 19th century design and ingenuity.

Large front wheel: between 1 and 1.5m in diameter

Small rear wheel: for balance and support

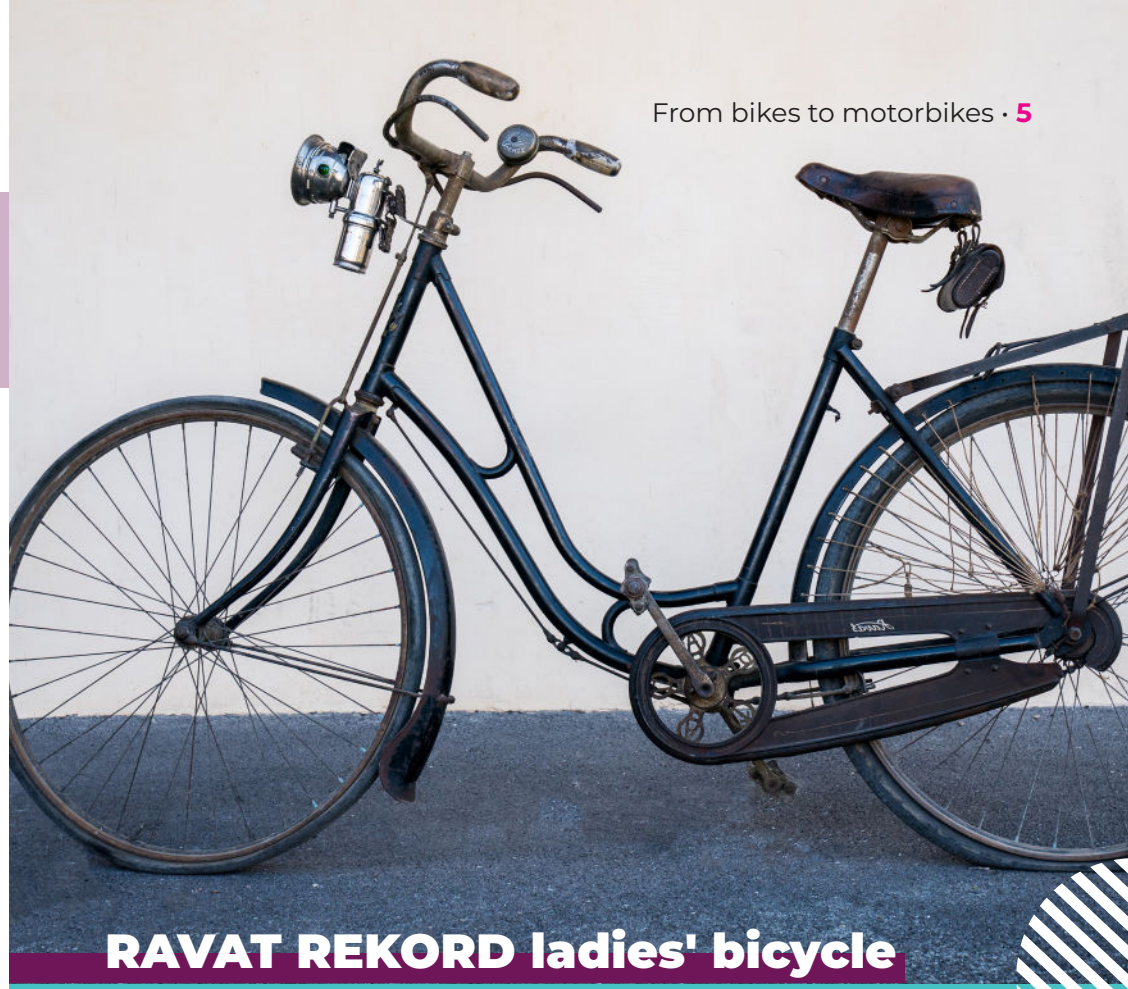
Frame: usually steel

Pedals: fitted onto the front wheel's axis

Brake: usually a spoon brake on the front wheel

High saddle: a small step so cyclists can mount the bike

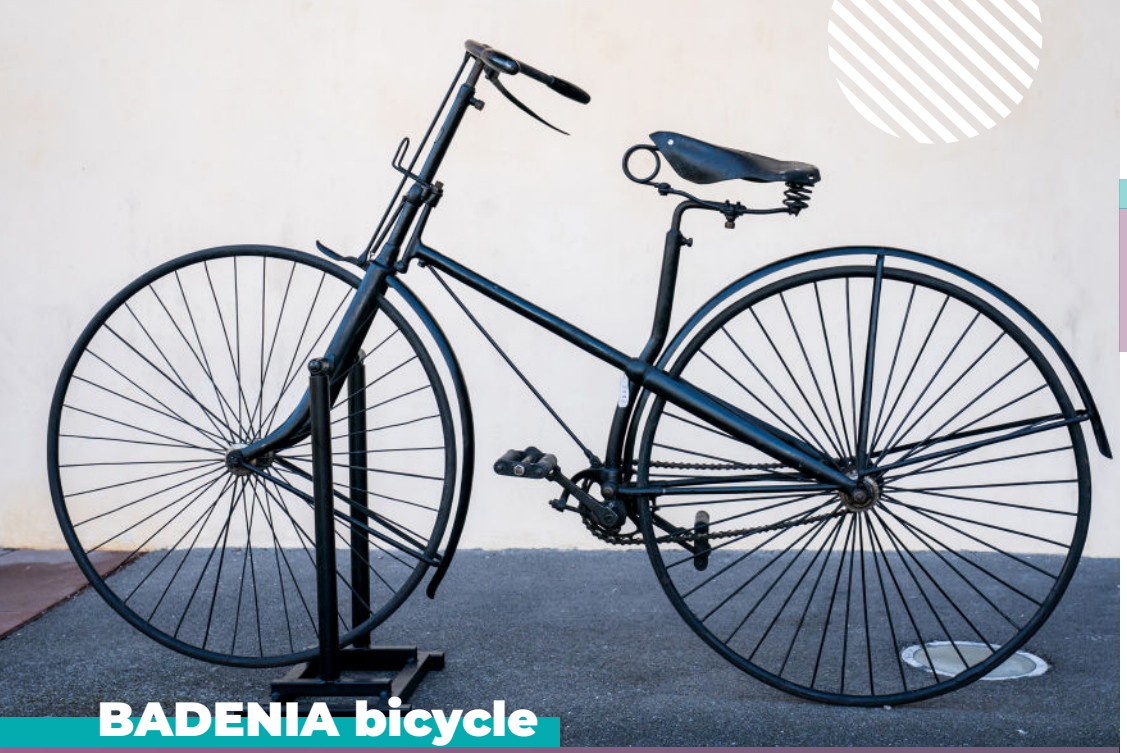
Handlebars: tracker, often low for a more aerodynamic position



RAVAT REKORD ladies' bicycle

France, 1906
Inv. 2022.0.26
Friends of the Motorbike Museum collection, donated by the owner's nephew

This Ravat bicycle belonged to a Sausheim resident who bought it new in the 1910s and kept it all her life. Her descendants donated it to the museum.



BADENIA bicycle

Germany, circa 1910
Inv. 2022.0.241
Loaned by the National Automobile Museum, Collection Schlumpf – Mulhouse

This bicycle was made by Eisenwerke Gaggenau Aktiengesellschaft in the early 20th century. The German company made spare parts and bicycles under the brand name Badenia in the 1910s.

Although the technical features of Badenia bicycles were fairly similar to other brands, it set a benchmark for the Germany bicycle industry in the early 20th century. It has a sleek design and captures the cultural and economic importance of the bicycle as a popular means of transport.

VELO SOLEX 45cc moped

France, 1947
Inv 2022.0.8
Bantzenheim Municipal Collection, donated by Lemoine

The Vélo Solex 45cc launched in 1946 as the first moped mounted on an Alcyon bike frame with its signature red stripe on either side of the engine's bodywork. It made its mark on the history of light vehicles. Its engine was minimalist and easy to repair. It had a very affordable retail price and a low fuel consumption, making it a very inexpensive vehicle to run. The Vélo Solex was known as "the bicycle that rides itself."
139,000 units were manufactured between May 1946 and June 1951. It was a symbol of France during the 30 year boom following the end of WWII and is still a cult item due to its popularity and simple yet efficient design.

Engine: 45cc

Power: 0.4 hp at 2000 rpm

Cooling system: air

Transmission: friction drive on front wheel

Start system: pedal, no automatic clutch

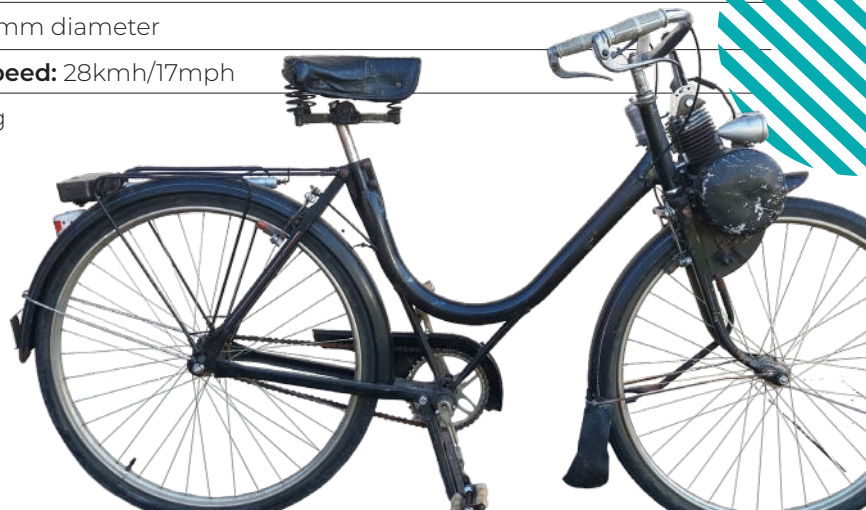
Frame: tubing

Brakes: rim brakes controlled by brake levers on the handlebars

Wheels: 650mm diameter

Maximum speed: 28kmh/17mph

Weight: 26kg



HERCULES
32 COMOD 49.9cc moped

Germany, 1948
Inv 2021.0.194
Bantzenheim Municipal Collection, donated by Lemoine

Carl Marschütz founded Hercules in 1886 in Nuremberg. The German company started out manufacturing bicycles before expanding to motorcycles in 1904. It was renowned for its mopeds and lightweight motorcycles.

This model was designed after WWII, when lightweight and affordable vehicles were in high demand. The brand made a wide array of motorised bicycles fitted with two-stroke engines, primarily supplied by Sachs. At the time, Sachs was the biggest European manufacturer of two-stroke engines for motorcycles. Hercules stopped making motorcycles and mopeds in 1996.

The company also ventured into green transport solutions. In the wake of the 1973 oil embargo, it designed the Hercules E1 electric scooter with a 750 watt Bosch engine. It was fuelled by two 12 volt batteries. This model was primarily designed for short journeys in towns and cities.

Engine: 2-stroke single-cylinder, 49.9cc, Master (GB)

Cooling system: air

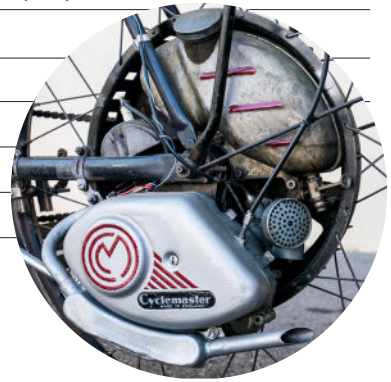
Power: 1 hp

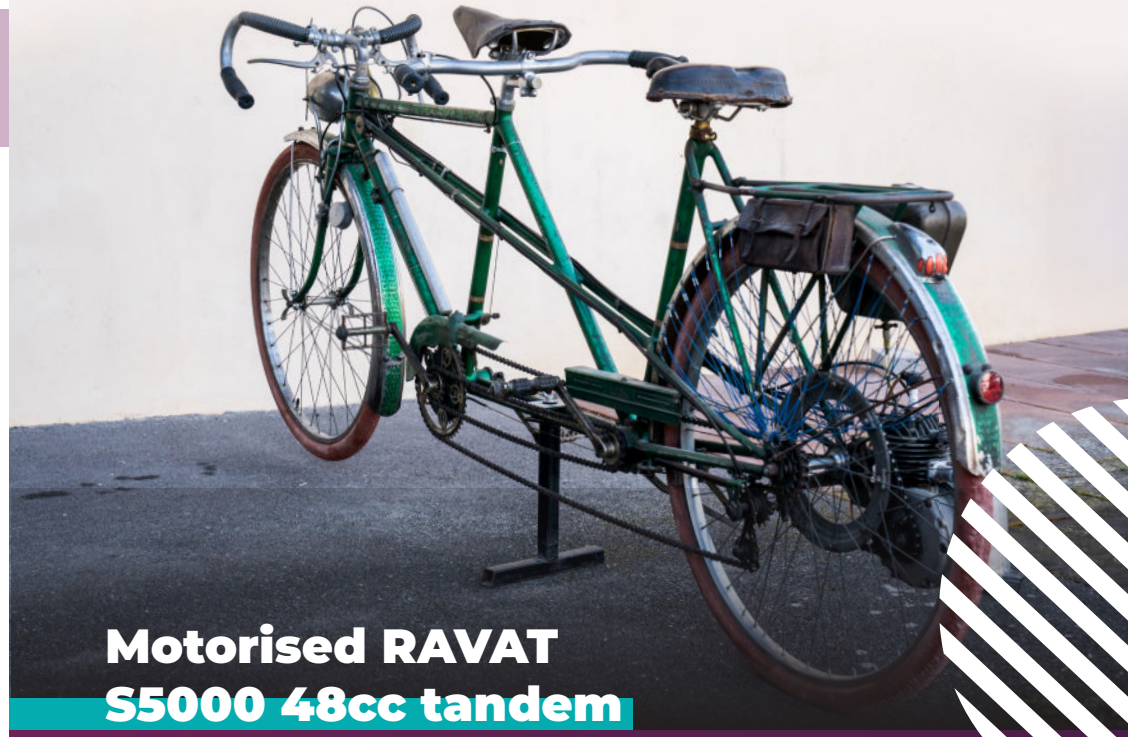
Transmission: chain-driven

Frame: steel tubing

Start system: pedal

Maximum speed: 35kmh/22mph





Motorised RAVAT
S5000 48cc tandem

France, 1953
Inv. 2021.0.193
Bantzenheim Municipal Collection, donated by Lemoine

The Ravat tandem is an oddity and there aren't many of them around. Ravat only made a few because the engine on the side of the rear wheel caused significant imbalance and it was dangerous to ride.

Engine: 2-stroke VAP4 48^{cc} engine made in Hazebrouck (Northern France)

Cooling system: air

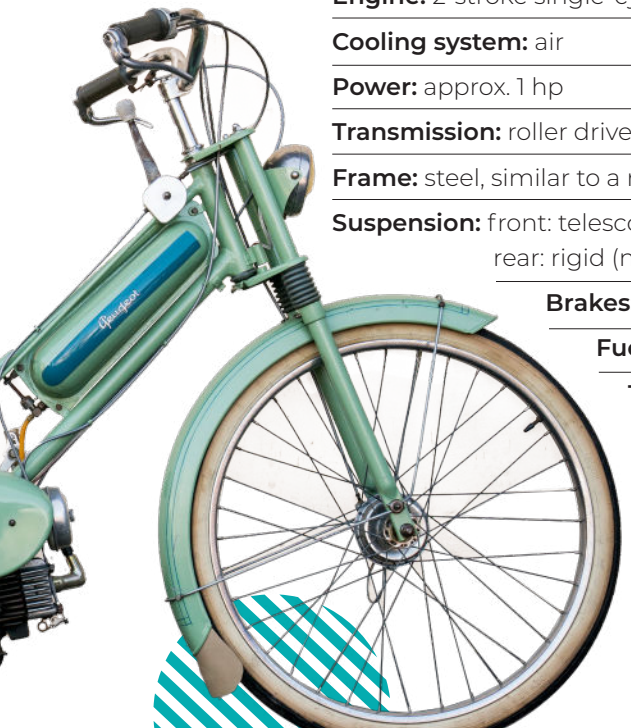
Maximum speed: 25kmh/15mph

PEUGEOT BIMA
49cc moped

France, 1957 • Inv 2021.0.191
Friends of the Motorbike Museum collection, donated by Mr. Dubouchet

The Peugeot BIMA is an iconic 1950s moped which Peugeot made between 1951 and 1958. The name BIMA comes from "BI" for bicycle and "MA" for "motor-assisted".
It was designed to provide an affordable alternative to scooters and motorbikes for young people and workers.
The roller drive on the rear wheel to engage the wheel sets it apart from chain-driven or belt-driven bicycles.

This model is renowned for its simple engineering and easy maintenance.
An upgraded version of it, the BIMA Luxe, came out a few years later with better transmission and a sharper design.
It was replaced by more modern models with a variator in 1958.



Engine: 2-stroke single-cylinder, 49cc

Cooling system: air

Power: approx. 1 hp

Transmission: roller drive on the rear wheel

Frame: steel, similar to a reinforced bicycle

Suspension: front: telescopic fork
rear: rigid (no suspension)

Brakes: drum brakes (front and rear)

Fuel supply: Gurtner carburettor

Tank: approx. 2.5l,
under the handlebar riser

Start system: pedal
with decompression lever

Maximum speed:
40-45kmh/25-28mph

MOTOBECANE MOBYLETTE
AV76 49.93cc

France, 1958
Inv. 2022.0.196
Bantzenheim Municipal Collection, donated by Lemoine

The Motobécane AV (A Variator) range of Mobylettes launched in 1949 and become an affordable transport solution in post-war Europe.

The Mobylette AV76 was manufactured between 1957 and 1968. It's one of Motobécane's iconic "blue" mopeds. The Mobylette was famous for its stamped frames and large tanks and people loved it for being simple and reliable.

It was hugely popular and a symbol of French industry during the 30 year boom following the end of WWII.

Engine: 2-stroke single-cylinder, 49.93cc

Cooling system: air

Power: 1 hp

Transmission: Dimoby automatic clutch

Frame: stamped sheet metal with built-in tank

Suspension: telescopic fork at the front, none at the rear

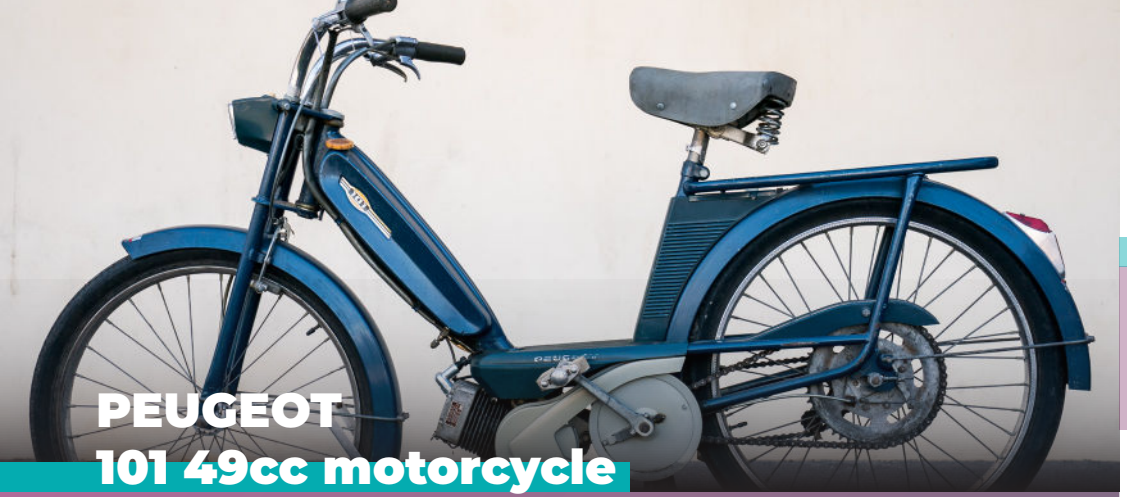
Brakes: front and rear drum brakes

Fuel supply: Gurtner AR10 DSF carburettor

Tank: built into the frame with a 2-3l capacity

Maximum speed: 35kmh/22mph

Start system: pedal



PEUGEOT
101 49cc motorcycle

France, 1967
Inv. 2022.0.28
Bantzenheim Municipal Collection, donated by Lemoine

The Peugeot 101 launched in 1967. It replaced the Peugeot BB series from the 1950s. The 101 was designed to be easy to use and maintain for the general public. It had pedals so you could ride it like a bicycle, in accordance with legislation related to motorised bicycles at the time.

The pedals came in handy for riding uphill when the engine needed a little help.
It was sold at the same time as the 102, a very similar but more powerful model. The 101 was the base model in Peugeot's "100" series in the 70s and 80s, which also included the 102, 103, 104 and 105 models and will have fond memories for generations of people.

Engine: 2-stroke single-cylinder, 49cc

Power: 1 hp at 4000 rpm

Start system: pedal

Transmission: belt and chain-driven

Frame: steel monocoque

Suspension: Rigid fork, optional telescopic suspension to the front; rigid suspension, optional swing fork to the rear

Brakes: drum brakes to the rear, rim brakes to the front (optional drum brakes)

Wheels 19 or 16 inches

Maximum speed: 35kmh/22mph

ZÜNDAPP
KS Sport 49.9cc moped

Germany, 1972
Inv. 2021.0.193
Bantzenheim Municipal Collection, donated by Lemoine

Zündapp was founded in 1917 and was a famous 20th century moped brand.
The Zündapp KS 50 Sport moped was made in the 1960s. It was popular for its performance and sporty design.

It stood out for its eye-catching appearance with a streamlined tank and single or double seat depending on which version you chose. It came in a variety of colours often with decorative stripes to highlight its sporty personality.
This model was a huge success among young riders at the time due to its reliability and impressive speeds for a 50cc moped.

The Zündapp KS 50 Sport is now highly sought-after among collectors and lovers of vintage motorbikes.

Engine: 2-stroke single-cylinder, 49.9cc

Power: approx. 6.25 hp

Transmission: 5-speed manual transmission

Cooling system: forced air

Maximum speed: 70kmh/43mph

Frame: steel tubing

Front suspension: telescopic fork

Rear suspension: swing fork with shock absorbers

Brakes: front and rear drum brakes

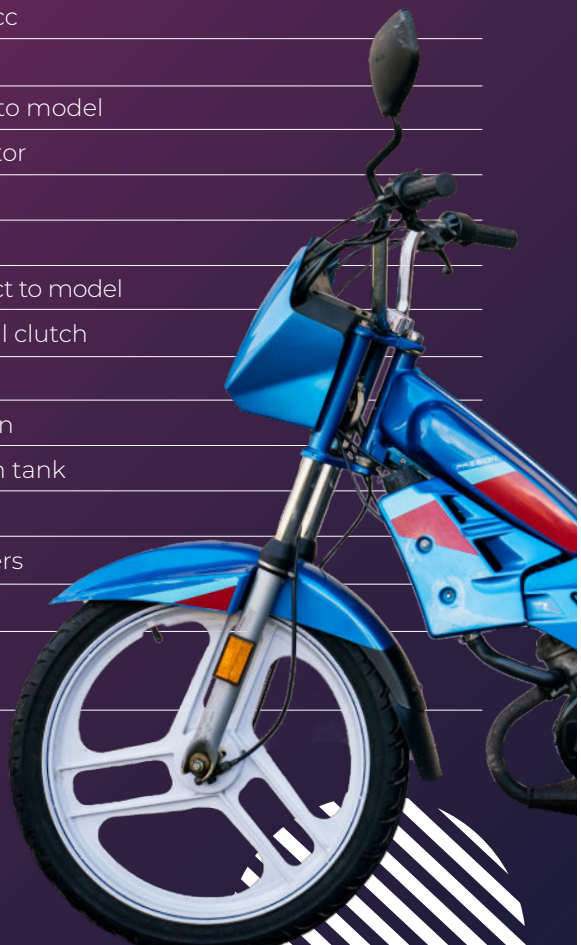
MOTOBECANE
MBK Passion 49.9cc moped

France, 1985
Inv 2021.0.169
Bantzenheim Municipal Collection, donated by Lemoine

Motobécane was renamed MBK in 1984 and launched the MBK 51 series moped in 1985. The brand's biggest sellers at the time included the MBK 51 Club VRC for its sporty design and the MBK 51 CF.

Motorcycling enthusiasts often modified them with kits to increase their speeds.
They were hugely popular among young people and famous for being reliable and easy to maintain.

Engine: 2-stroke single-cylinder, 49.9cc
Power: 1 hp
Cooling system: air or liquid, subject to model
Fuel supply: Gurtner 14mm carburettor
Intake: valves
Ignition: electronic
Start system: pedal or kick start, subject to model
Clutch: Dimoby automatic centrifugal clutch
Primary transmission: belt-driven
Secondary transmission: chain-driven
Frame: steel monocoque with built-in tank
Front suspension: telescopic fork
Rear suspension: dual shock absorbers
Brakes: front and rear drum brakes
Wheels: alloy rims
or 17" spokes
Maximum speed: 45kmh/28mph



PÔLE EUROPÉEN DE MUSÉES SCIENTIFIQUES & TECHNIQUES
MULHOUSE ALSACE AGGLOMÉRATION

LA GRANGE BECANES

MULHOUSE ALSACE AGGLOMÉRATION

Temporary exhibition in partnership with the National Automobile Museum - Collection Schlumpf.

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