

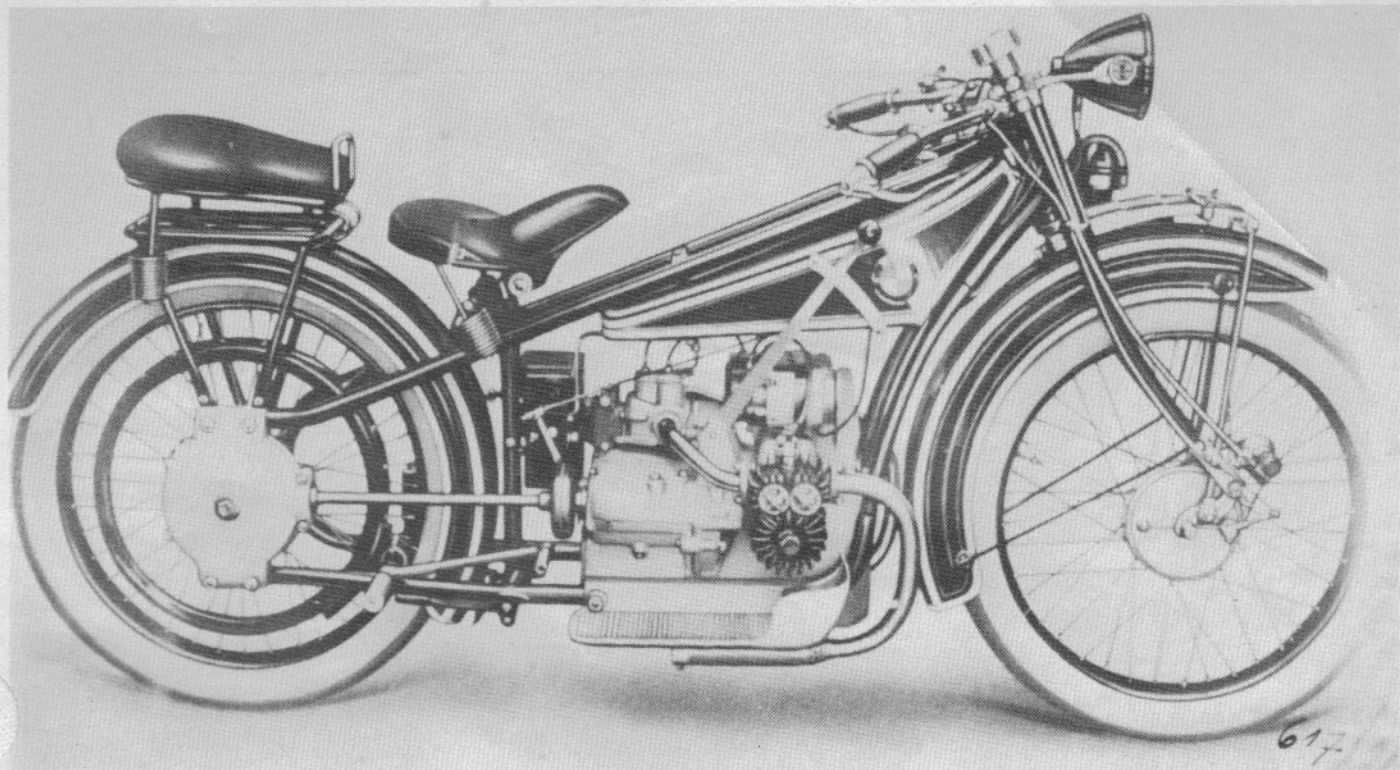


R57/2

TEUTONIC MASTERPIECE

THE STORY OF THE BMW

BY RICHARD RENSTROM



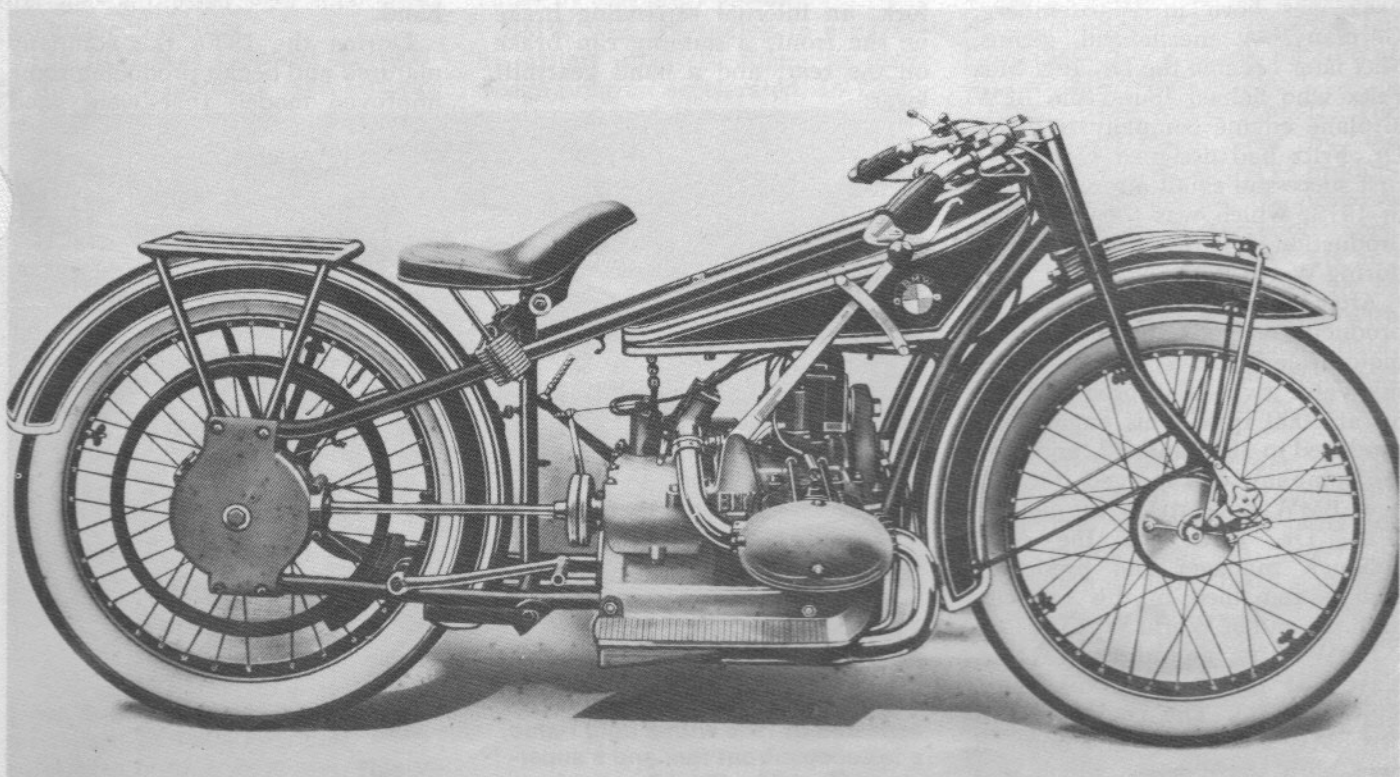
In 1923 BMW produced their first motorcycle – the 500cc R-32 model. The side-valve twin produced 8.5 hp at 3300 rpm.

For many years, the BMW has been considered the aristocrat of motorcycles. With a reputation for craftsmanship, unfailing reliability, a superb finish and gentlemanly manners, the BMW has often been called the Rolls-Royce of motorcycles.

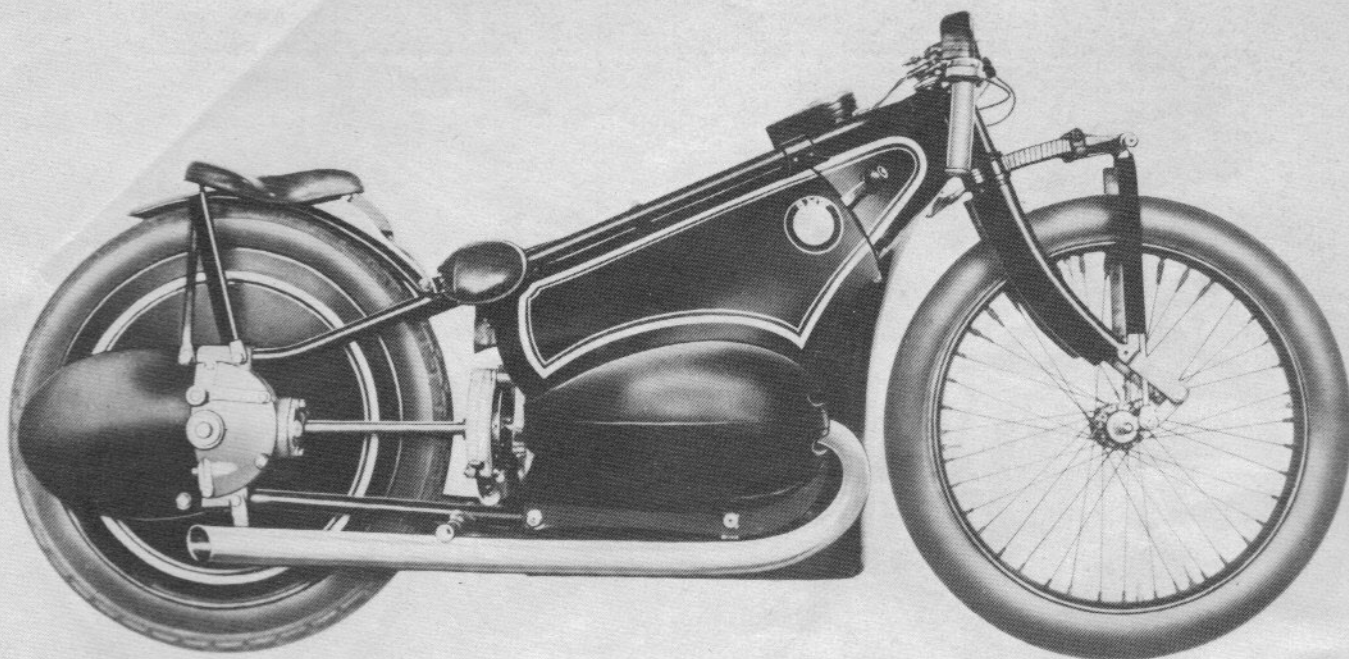
Favored by serious riders who like to really cover the continent in their travels, the BMW has always been known for its vibration-free engine and comfortable ride. The more gentlemanly of motorbike riders have always preferred the BMW for its quiet and clean

manners, selecting the elegant twin over more sporting machines that are faster but nowhere near as refined.

The BMW owner is always a proud rider; proud that he owns *the* prestige machine of motorcycling. Expensive to purchase, the BMW



The 1925 R-37 was BMW's first OHV twin. The rear brake consisted of a brake shoe working on the dummy rim.



In 1930 Ernst Henne set a new world speed record of 137.86 mph with this 750cc OHV twin that used some sheetmetal around the center section.

will probably give its owner more pure pleasure without hassles than any machine on the road today. Engineered to endure, the BMW will run for 100,000 miles and still be alive to serve more.

The story of the Bavarian Motor Works began in 1883 when Max Fritz was born in Wurttemberg, Germany. A mechanical genius, Max later became the Dr. Ing. Max Fritz who helped found the BFW airplane engine company in 1916. Dr. Fritz had designed Germany's first successful small aircraft engine in 1912, which was then put into production for the Kaiser's army during World War I.

After the war the company began producing an engine for the Victoria motorcycle, which was a 500cc side-valve twin that produced 6.3 hp at 3000 rpm. This engine was produced in 1921 and '22, and then the company was merged into the new BMW concern in Munich in 1923. Dr. Fritz was the chief designer, manager and president, and he remained in this capacity until the end of World War II.

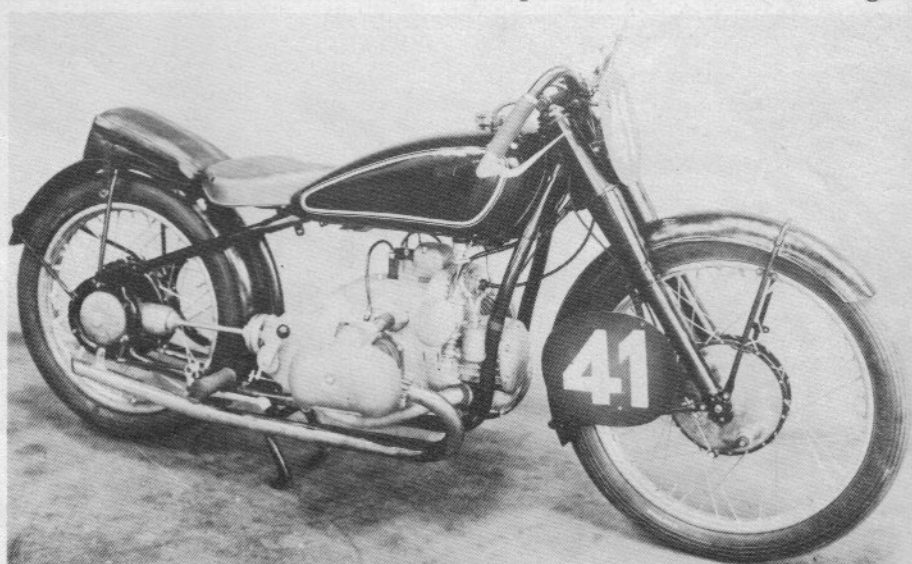
BMW's first motorbike was displayed at the Paris Motor Salon Show in 1923. The engine of this first BMW was a side-valve opposed twin with shaft drive, which was destined to become a tradition at

BMW. The basic design has been refined and improved, but it has never been altered. The 500cc R-32 developed 8.5 hp at 3300 rpm and started the Bavarian concern on its long trip through time.

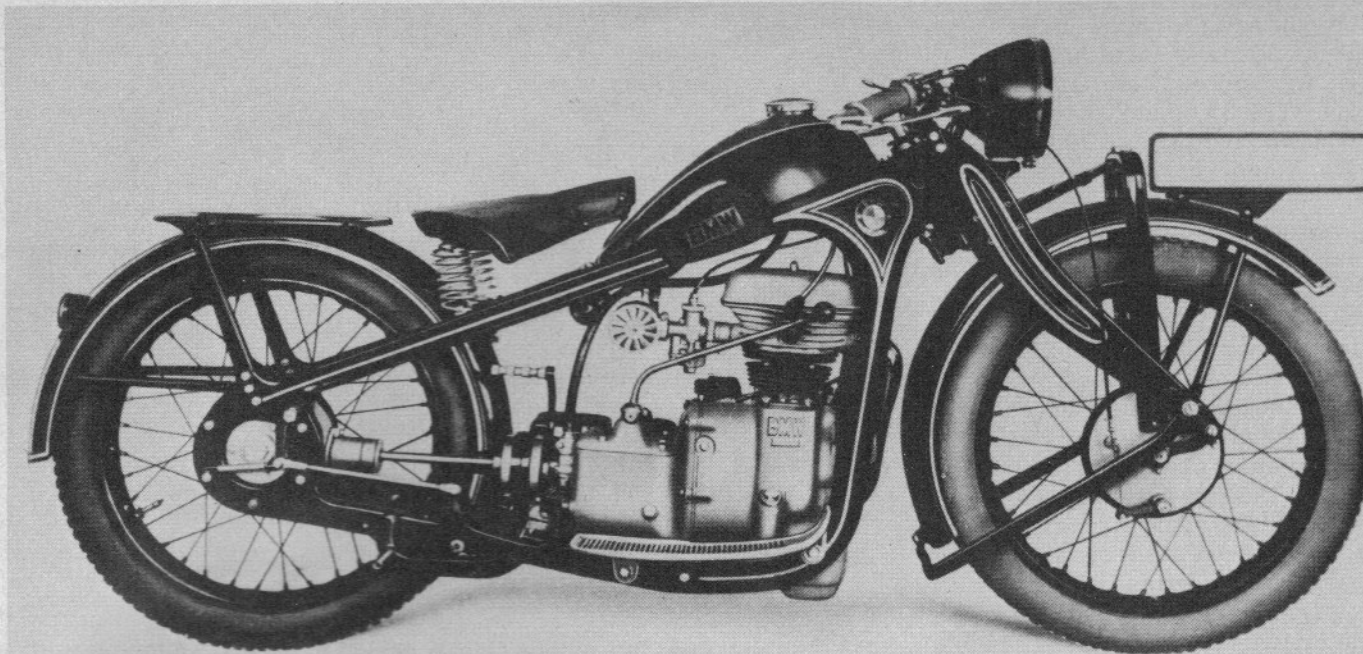
In 1925 the company produced their first single, a 250cc OHV model with 6.5 hp at 4000 rpm and shaft drive. A 500cc OHV twin soon followed with 16 hp at 4000 revs. All of these early BMWs had a cast-iron pipe frame, a leaf-spring front fork, an internal expanding brake on the front, a dummy rim brake on the rear, and a hand gearshift lever.

In 1926 the internal expanding brake was adopted on the rear wheel, and then in 1928 a new 750cc side-valve twin was introduced with 18 hp at 3400 rpm. Later in the year an OHV 750 was produced with 24 hp at 4000 rpm. A new pressed steel frame then made its debut in 1929. It had wide sections which were located on the outsides of the fuel tank, a rather ungainly proposition. The three-speed gearbox was still shifted by hand.

During the 1930s the company matured and began producing some improved models that were good



BMW's first 500cc grand prix racer appeared in 1936 with a rigid frame, a telescopic front fork and a supercharged engine. The bike was fast but handled poorly.



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enough to be competitive in foreign markets. Always methodical in their approach, BMW slowly perfected their basic design until they became Germany's most outstanding machine.

Always a pioneer in building a comfortable mount, BMW began experiments with a new front fork that would offer a more comfortable ride than the common girder type. These experiments culminated in the 1935 R-12 model that had a pressed steel fork with two long coil springs.

The R-12 was followed in 1936 by the R-5, a model of such historic

significance that it is now a great classic. The 500cc OHV twin produced 24 hp at 5400 rpm, which gave it a brisk 80 mph performance. The old "star" frame was dropped in favor of a new tubular frame, which had a new telescopic front fork with hydraulic damping. The R-5 thus became a milestone in the evolution of the motorcycle. A hand clutch lever was also used, and an odd lever was mounted on the four-speed gearbox that could be shifted either by foot or by hand.

BMW was attempting to expand its export markets then, so the design progress accelerated. In 1938

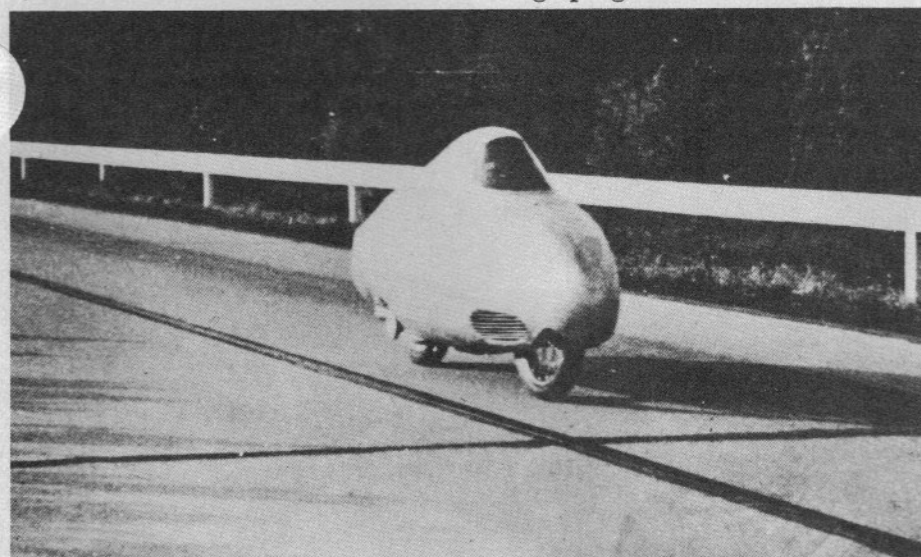
This 250cc single of 1937 reveals the old-style "star" frame that BMW used during the 1930s. The leaf spring front fork was similar to the fork used on early American Indians.

the exciting new R-51 and R-66 models were introduced, which featured 500 and 600cc OHV engines in a new spring frame. The new frame used the plunger design with coil springs and no hydraulic damping, which provided the ultimate in rider comfort. A big 750cc SV model was also produced, as was a 250cc single, with the 750 being especially popular for sidecar use due to its beefy torque.

Then came World War II. The factory was taken over by the government for military production, and after the war the premises were occupied by her conquerors. The bulk of the machine tools and equipment were distributed to 16 nations as spoils of war, along with a great deal of technical data, company records and historical material — much of which has been lost forever.

In 1946 the factory began producing farm tools, household goods and replacement parts for their motorcycles. In 1947 the production of 500cc bikes resumed, with a 12 hp 250cc single added to the range in 1948. In 1950 the BMWs began coming to America, with the 87 mph twin not causing much interest in an era when the British sporting singles and twins were becoming so popular here.

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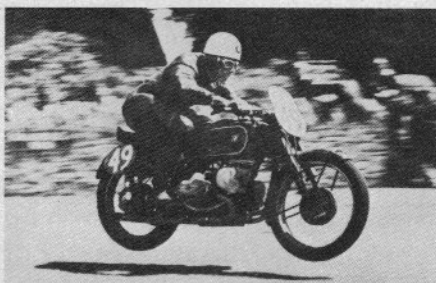


In 1939 Ernst Henne set a new world speed record of 173.88 mph with a supercharged 500cc twin that developed 78 hp at 8000 rpm. This was the first successful use of full streamlining.

BIG BIKE/OCTOBER 1977

The 600cc R-68 model made its debut in 1952, and even this model failed to impress the American market. With 35 hp at 7000 revs the big 600 would run over 100 mph, yet we Americans remained skeptical.

In retrospect we now realize that the market was not ripe here for the BMW. The American scene was still largely dominated by a hard core of Harley-Davidson and Indian riders, who had been raised on a steady diet of monstrous 61, 74, and even 80-inch V-twins. For these hardy souls, anything so puny as a mere 600cc job was just not adequate for open road use. And then in the sporting end of the game the opposed twin German bike was certainly no match for a British single or twin in a scrambles, field meet or TT race. The BMWs thus

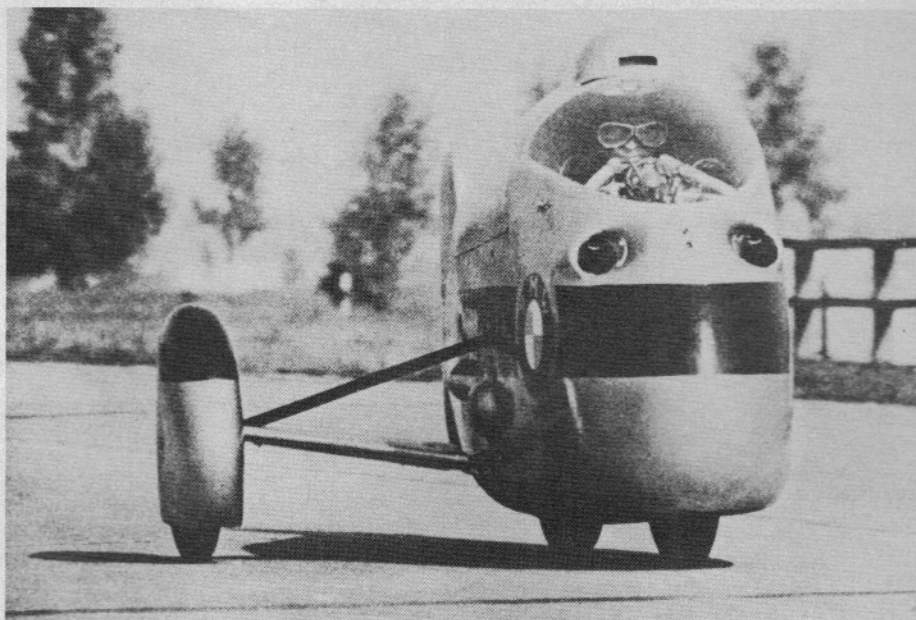


Georg Meier is caught in full flight in the 1939 Senior TT, which he won at a record speed of 89.38 mph.

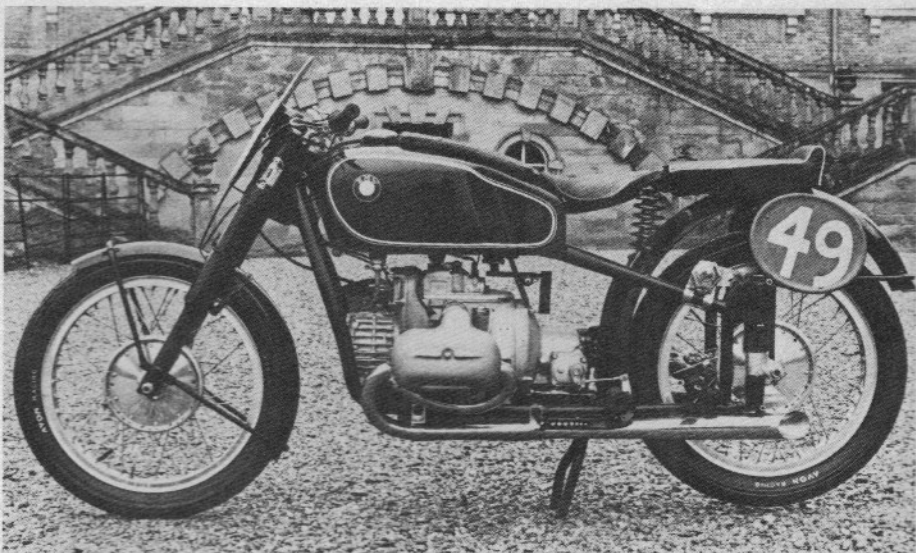
fell in between these two extremes, so that few were sold in this country. Sales in Europe were on the rise, however, so that no less than 100,000 had been produced between 1947 and 1953.

The 1955 BMWs became more modern when the plunger frame was dropped in favor of a swinging-arm design. An Earles or swinging-arm-type suspension was also used on the front, which gave the BMW a very distinctive appearance. The emphasis was on comfort, with the ride now becoming super-smooth. A regal beast for serious touring, the BMW began acquiring a reputation for reliability and quality of finish that has endured to this day.

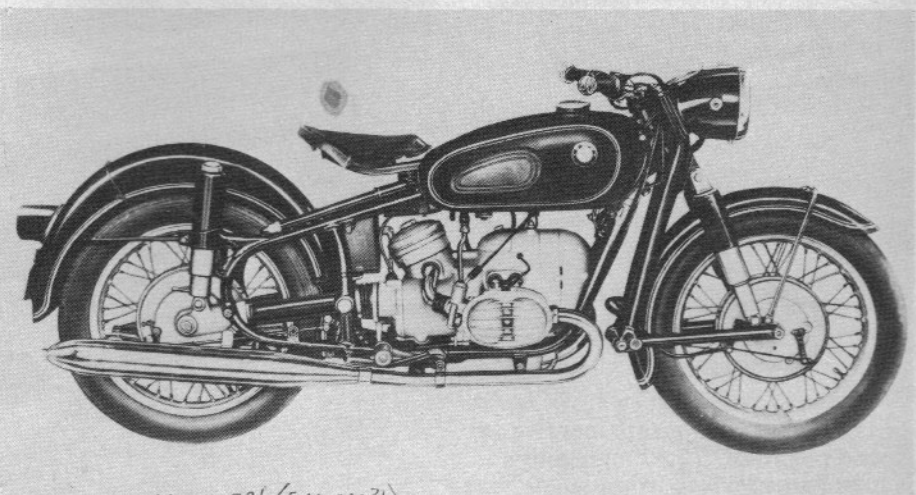
The 1955 range included the R-25/3 250cc single, the 500cc R-50, the 600cc R-60 and the 600cc R-69S. The first three models were standard touring machines, but with the R-69S model the company was attempting to establish a sporting image. With a higher state of tune, the R-69S produced 42 hp at 7000 rpm for a top speed of



In 1955 Willi Noll used this unique sidecar design to set a 173.6 mph record that still stands today. In 1963 the FIM outlawed the use of this type of sidecar for record setting.



Georg Meier's 1939 Senior TT-winning BMW has been restored and is now on display at Stanford Hall in England. The blown twin weighed a remarkably light 302 pounds.



SEE AIR CLEANER! (FLASHERS?!)
The 1955 R-50 model has now become a classic, since neither the 500cc engine nor the Earles front fork are now being produced.

around 110 mph. There were just a very few bikes in the world then that had this kind of performance, with only the 125 mph Vincent 1000cc "Black Shadow" being really superior. The Vincent's last year of production was 1955, though, so by 1956 the R-69S was in a very competitive marketing position with the world's road riders who desired performance.

During the following half-dozen years there was not a great deal of change in the BMWs. Small improvements were made, with the emphasis being on improving the quality. The beautiful BMWs soon became famous for the quality of their paint, the fine castings, the

lack of oil leaks and their quiet and vibration-free running. Slowly but surely, a new breed of riders evolved in America who appreciated these virtues in a motorcycle. They were serious travelers of the open roads, and they tended to be a little more gentlemanly than the others. Sophisticated and refined, the BMW met their needs in an admirable manner.

In Europe, meanwhile, the factory was intent on developing a more sporting image. During the early 1960s a new form of road racing came into being for standard road models. BMW took part in these events with a great deal of success, winning a few and placing

well in many of these races. The bulky twins didn't scratch around corners quite as well as the British bikes, but their ability to finish the long-distance races soon became a legend.

This incredible ability to run at high speeds for long distances was dramatically demonstrated by a team of riders in March of 1961 at Montlhery in France. The goal was to set a new world's record for 24 hours, which had just been broken one week earlier by a Velocette 500cc single at 100.05 mph. The Velo team had been the first to exceed the century mark for such a long grind, and now it was to be BMW's turn.

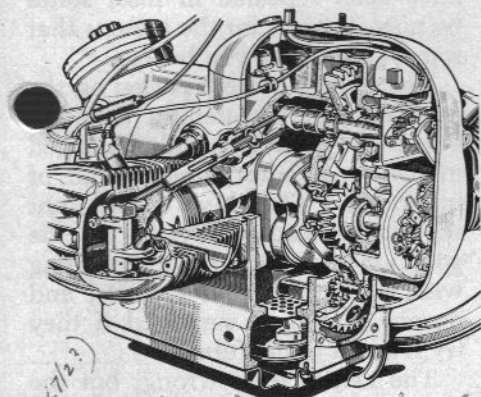
The bike was a 600cc model that had a stock but factory-prepared engine that was fitted with megaphone exhausts for more power at high revs. The R-69S had full lighting equipment, since the lighting around the banked Montlhery bowl is notoriously poor, so that the twin was amazingly standard. The 600 was geared rather high to run at 6800 revs flat-out, which it did to the tune of 109.24 mph for the 24-hour grind. This was and still is a remarkable record, and it certainly gave the BMW a boost in international prestige.

The development work went quietly on, meanwhile, with an experimental model showing up in the 1965 International Six Days Trial which had a new frame with a more orthodox swinging-arm setup, a telescopic front fork, and 80 pounds less weight. It takes time to fully develop and test at Munich, however, so the BMWs continued nearly unchanged for four more years. In 1969 the 250 single was dropped, however, since sales had fallen off badly in a performance-oriented world. Never a fast bike, the R-27 single had sweet virtues that were no longer appreciated by the majority of the world's riders.

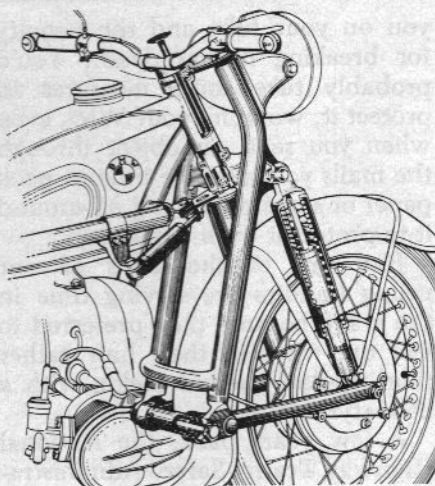
All of this research and development finally made its debut in 1970 with the R-50/5, R60/5 and the R75/5. New from stem to stern, the /5 BMWs were an obvious answer to the rising horde of Japanese bikes that featured both sophistication and performance.

The most noticeable change was the chassis, which had an orthodox swinging-arm rear end with 4.9 inches of travel and a two-way dampened telescopic front fork with

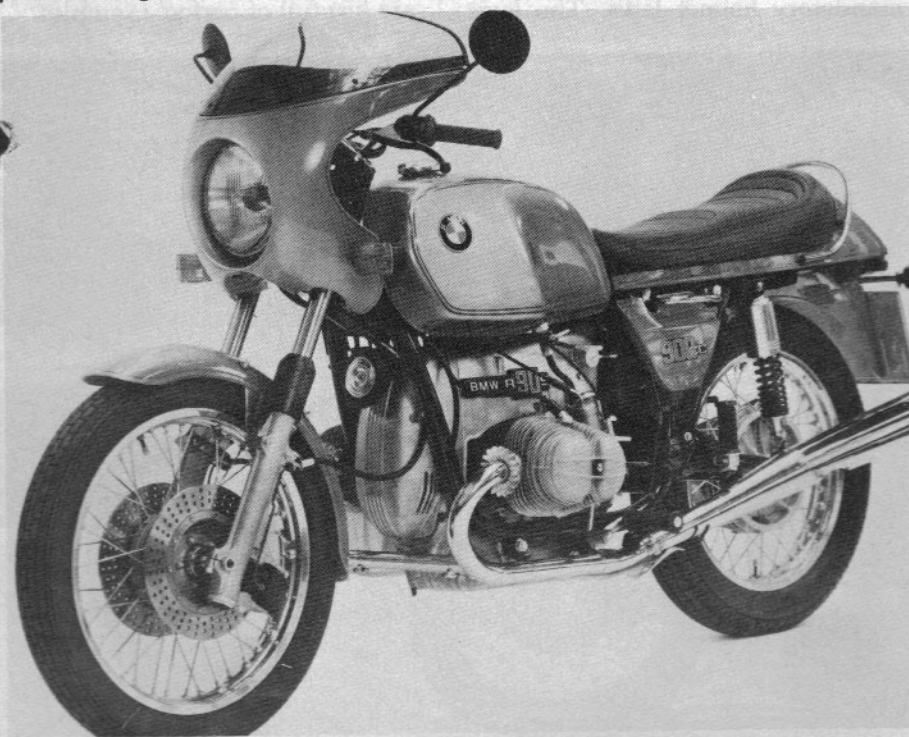
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ME-55 (R67/2?)
This exploded drawing reveals the details of the 1960 BMW engine that used roller bearing rods. In 1970 a change was made to split rods with plain bearings.



Very stable and comfortable at speed, the Earles fork was used on BMWs from 1955 to 1970.



BMW made a great effort to court the sports market in 1976 with the R-90S model that featured a 75 hp engine of 900cc and a small fairing.