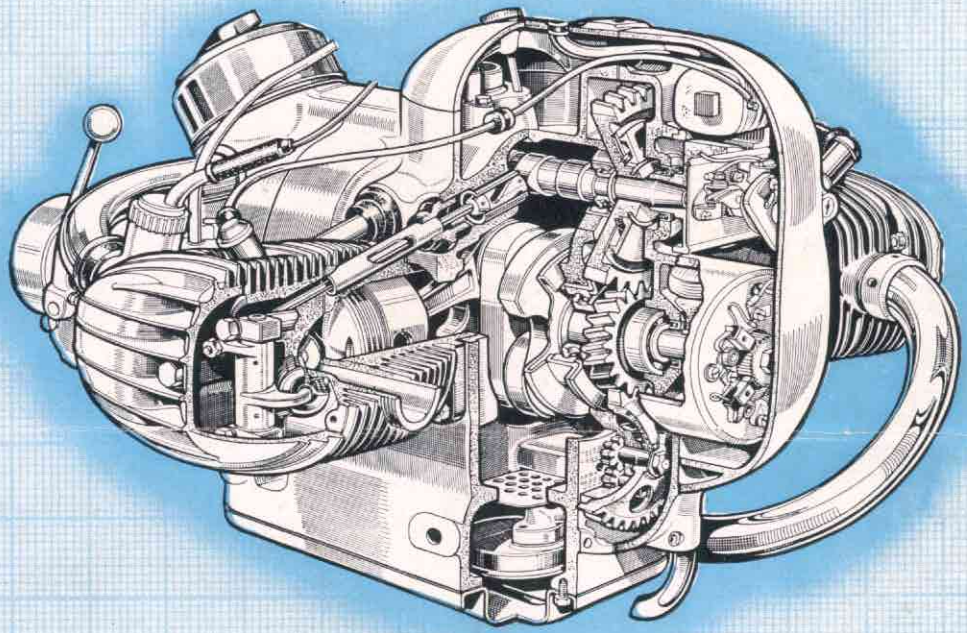
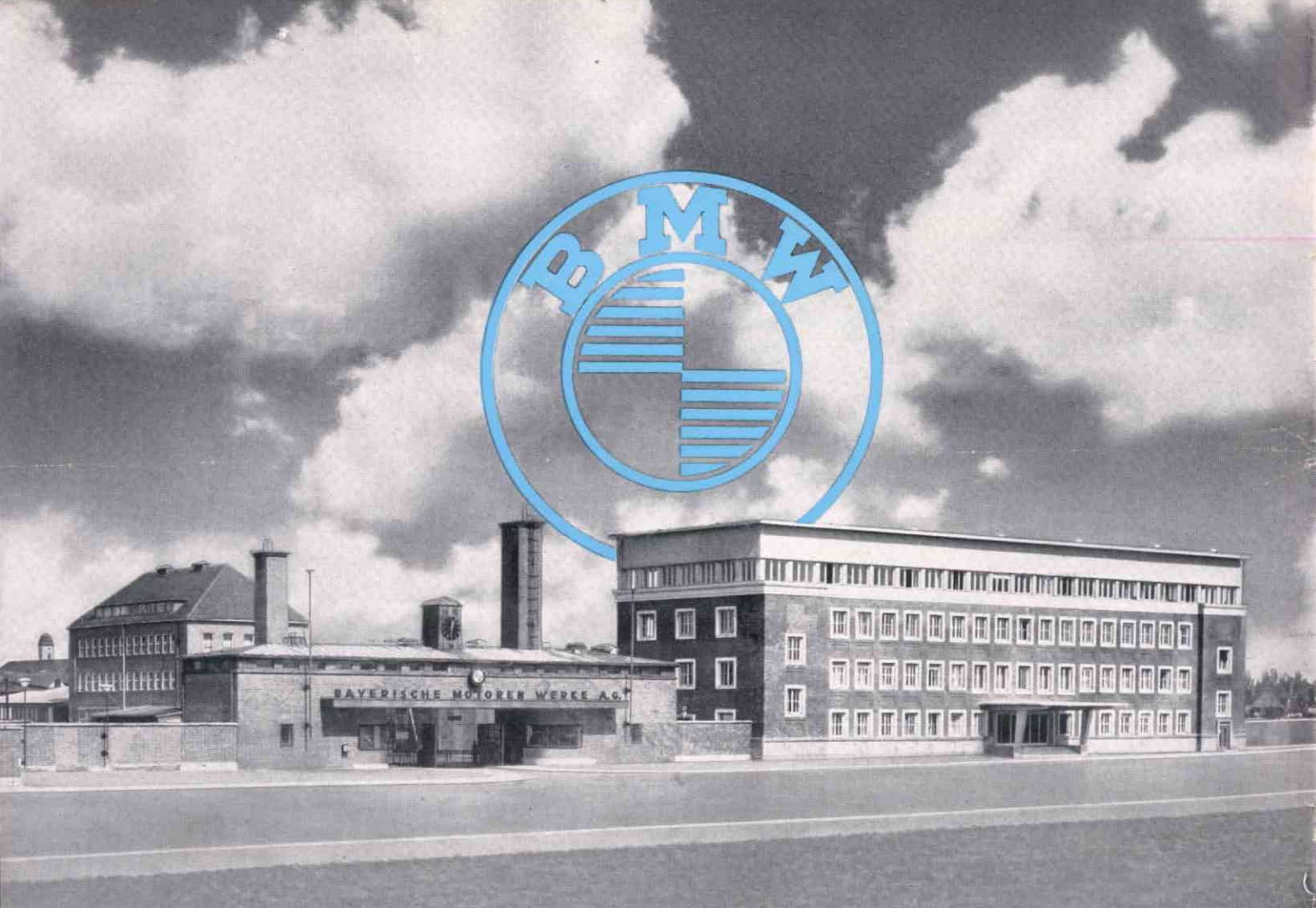
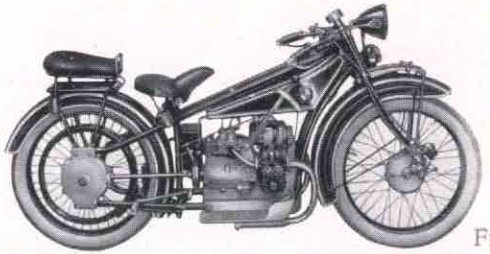


BMW

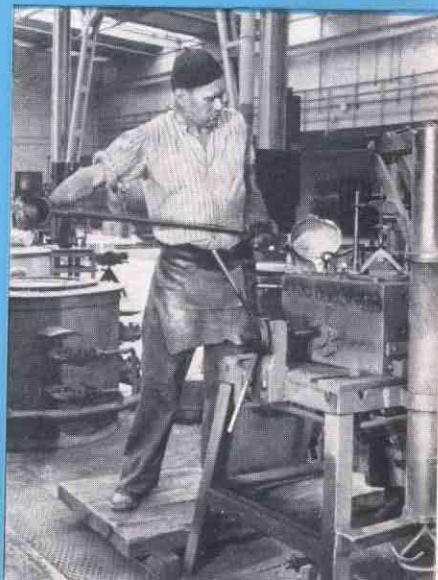
Motorcycles

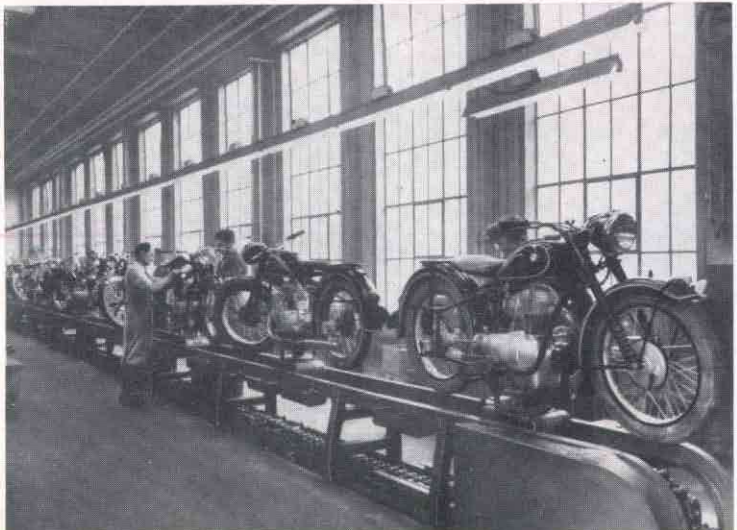

BMW
BAYERISCHE MOTOREN WERKE A.G.

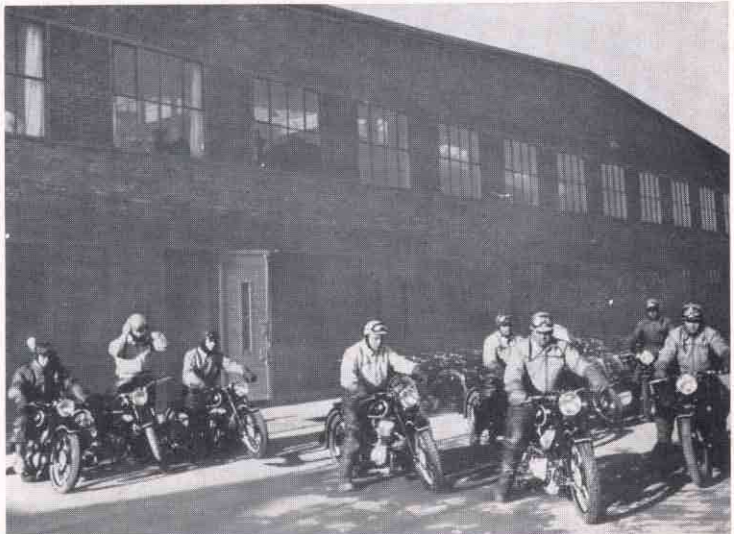


From the very beginning, particularities of design have been the visible features of BMW motorcycles. Already on the first BMW motorcycle which was built in **1923** the reliable opposite-twin engine with shaft drive served as source of power. This design which aroused great interest has been developed step by step up to its technically mature shape of to-day. The high quality of BMW motorcycles has established their excellent reputation — riding them proves their value.

Exactly final inspections ensure perfect quality







Perhaps you, too, like many others, have been trying to make your decision as to what motorcycle you should buy. So you will perhaps like to have a word or two with an expert who can give you sound and honest advice . . .

We don't know, of course, whether you are going to buy your first motorcycle or whether you have already covered thousands of miles, sitting on a motorcycle saddle. But before you make your decision, you should bear in mind the fact that everybody who decides in favour of a BMW motorcycle will get the greatest possible value for his money. This will be confirmed by any BMW motorcycle owner you may ask.

More and more riders of BMW motorcycles can be seen on the roads of many countries — all of them BMW enthusiasts! In big cities, on highways, on country lanes — wherever you may go — you will see them, whizzing by at high speed or humming along at a moderate pace, depending on the temperament of the rider. Ask one of the proud owners of a BMW motorcycle for his opinion — it will help to make your decision.

For nearly three decades BMW has been building motorcycles which are now imported in increasing numbers into almost every country of the world. Who then should know better about the many and varied customer preferences than BMW does? Persistent research and development work is constantly reflected in improved engine performance and riding comfort. Already the technically attainable optimum has been reached as regards high engine performance combined with maximum flexibility and minimum fuel consumption, and excellent stability on roads and curves. In most cases motorcycles are required to serve professional purposes as well as to make holidays more enjoyable. You may be convinced that both these requirements are fully met by the BMW motorcycle the design and equipment of which is based on experience gained in many successful years.

The world-wide fame of BMW motorcycles has its origin in carefully planned scientific research projects, in the scrupulous testing of all materials used, in the precision work performed in our works, and in the excellent workmanship which has for several decades been the most cherished heritage of our company. The uninterrupted succession of impressive achievements in road races and trials won by BMW motorcycles is not accidental — it is the result of the definite superiority of their design. These successes in the field of sports have their counterpart in the high quality of the BMW production models. All new technical findings are immediately translated into design improvements of each motorcycle produced, including the one that perhaps tomorrow you may be using enthusiastically. All major changes in design, among them the highly effective BMW Duplex Brake, are first rigidly tested in races. If found to be successful, such changes will be incorporated into the production models. Another advantage that deserves special mention is the following: The useful life of BMW motorcycles considerably exceeds that of the average motorcycle. The far-flung network of BMW dealers and service stations established everywhere

is at your disposal to maintain your motorcycle at its full value. All authorized BMW service stations displaying the sign shown in this folder have factory-trained personnel, special tools, and original spare parts. They will be glad to keep your BMW motorcycle in perfect condition.

The BMW Motorcycle Engines

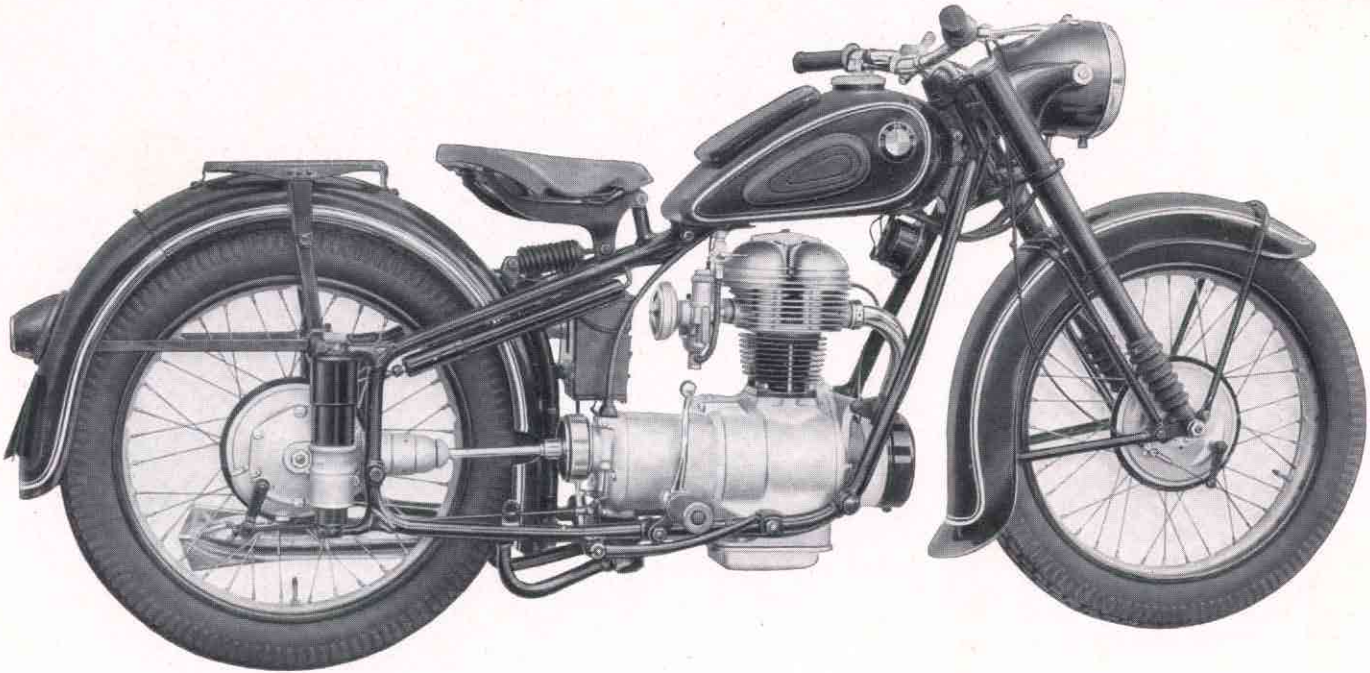
Research workers and production experts have collaborated in order to improve the engines in accordance with the latest scientific findings, to reduce engine noise, to render the engines more economical in operation, and to provide maximum flexibility. It is in these particular respects that the BMW Models R 25/2, R 51/3, and R 67/2 have been improved. The Model R 68 is a newly created design which is especially intended for sportsmen. Both the 500 c.c. and the 600 c.c. BMW motorcycles are powered by twin cylinder opposed-type engines. The most successful German 500 c.c. racing motorcycle is equipped with an engine of the same fundamental design. It has been possible, therefore, to transfer many of the improvements to the production models. The clear-cut design of the engine in unit construction, the fact that all parts are completely enclosed, that the surfaces are smooth, and oil leakage has been completely eliminated adds to the neat appearance of the machine. The housings of engine, gear box and drive shaft are treated after a legally protected procedure by which the light metal surface repels oil and dirt and can much easier be kept clean. Since both the magneto and the dynamo are accommodated within the crankcase, there are no protruding parts and exposed cables. Twin cylinder engines offer many advantages, the most important being the ideal balancing of moving parts, this in turn reducing the stresses set up under high engine load conditions. Thus, engine operation and service life are also benefitted. By virtue of high engine output at moderate crankshaft speeds surprisingly high cruising speeds can be obtained without any effort. The rider of a BMW motorcycle will equally well like the soft, humming noise of the engine at low speeds and the vigorous whir produced at high speeds. All BMW single cylinder and twin cylinder engines are provided with a mechanically controlled crankcase ventilating device. This device, by creating a slight vacuum in the crankcase, virtually eliminates oil leakage. Full utilization of engine power is ensured by the expertly designed, easy-to-operate four-speed transmission. Since technical progress will never come to an end, it has also been possible to incorporate many improvements and perfections in the design of the Model R 25/2 single cylinder motorcycle. While being of equally modern design, its engine exhibits improved balancing of moving parts and greater flexibility.

The Advantages of the BMW shaft drive

Even a person who has only scratched the surface of motorcycle construction problems will agree that the use of a shaft drive, which has already become commonplace in today's motor-cars, also offers the ideal solution for the trans-

Touring Model 250 c.c.-12 H.P.

BMW R 25/2

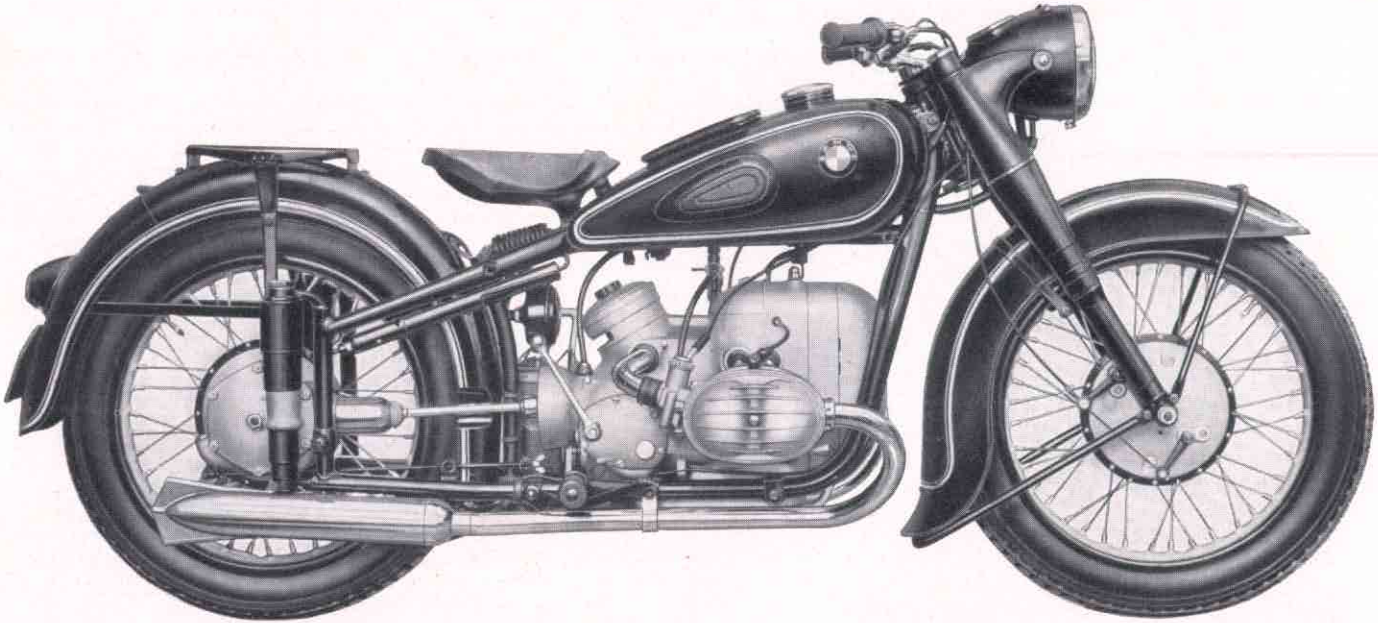


As a modern motorcycle which meets the latest technical requirements, the R 25/2 ranks high in BMW 's line of motorcycles which are known for their excellent performance, road holding properties and excellent cornering. Improvements have been incorporated in the engine, transmission and frame. The arrangement of the valve rocker arms in the cylinder head is now the same as that used in the famous BMW twin-cylinder engine. Other factors contributing to the attainment of even better engine characteristics are the chilled-iron camshaft carrying cams with quietening ramps and a piston of improved design. The crankcase has an oil dipstick fitted with a wing nut. The neutral position of the transmission is indicated by a pilot lamp incorporated in the headlamp. Further improvements include the following: Adjustable full floating saddle made of rubber, wider centerstand, short sports-style handlebar, rubber-sealed tool box, improved attachment of rear wheel suspension enclosure, cables fully enclosed in rear mudguard, improved battery mounts, adjustable clutch control on handlebar, and complete tool kit.

Engine: 12 HP Single-cylinder four-stroke engine; valve operating gear completely enclosed; deep-finned light-alloy cylinder head; combustion chamber designed for maximum efficiency; Vee arrangement of overhead valves; timing gear fully protected from dust and dirt; light alloy piston; crankshaft upon ball bearing; roller bearing connecting rod; single-throat carburettor with air cleaner and choke; full automatic spark timing; mechanical noise reduced to a minimum.

Frame: Distortion-proof double steel tubular frame; all-welded design; frame reinforced by gussets; ball-and-socket joints for sidecar provided; telescopic front and rear wheel suspension fully protected from dust and dirt; front wheel fork requires no maintenance; soft, long-travel spring action; thief-proof steering lock; rubber-mounted sports-style handlebar; steering damper; non-slip controls; rubber-cushioned tank holding 12 liters (2.65 Imp. gall. or 3.2 U.S. gall.); fuel reserve 1.5 liters (1/3 gall. approx.); quick-action filler cap; integral tool box; rubber kneegrips; comfortable rubber floating-type saddle; push-out axle spindles front and rear; wheels are interchangeable (convenient where sidecar is used); internal-shoe brakes of 6-1/4" drum diameter; straight, fracture-proof spokes; large headlamp, illuminated speedometer; electric neutral indicator; ignition lock; plug socket for inspection lamp or sidecar lamps; adjustable foot rests; long foot brake lever with lubricating nipple; hinged rear-wheel mudguard; enclosed tail-lamp cable; deep-flared front mudguard with tubular supports; detachable luggage rack; control cable conduits fitted with lubricating nipples.

Transmission and shaft drive: Power transmission by smooth-acting single-disc friction clutch; four-speed gearbox in unit construction; gearshift pedal and auxiliary hand shifting lever for easy gear changing; rubber-cushioned drive shaft; all gears with shock absorber; universal joint shaft drive and spiral bevel gears require no maintenance.



Touring-Sports Model 500 c.c.-24 H.P.

BMW R 51/3

The BMW R 51/3 in which the latest results of BMW's extensive research and development program are incorporated is one of the most outstanding products of the motorcycle industry. Its general appearance is as racy as the engine which gives this motorcycle its surprising flexibility. The high-powered twin cylinder engine has a gear-driven camshaft, magneto ignition system and full automatic spark timing. The successful combination of sporting and touring qualities of this engine which combine a maximum of 85 M.P.H. with non-snatch performance down to 12 M.P.H. still in top gear, truly a versatile engine. Few motorcycles will be found throughout the world that are so much "of one piece" as the BMW R 51/3 is. This statement applies for the all-wheel sprung frame matching the powerful engine, for its beautiful styling, and for all factors contributing to safety and comfort in riding.

Engine:

24 H.P. twin cylinder, opposed type, four-stroke engine; overhead valves; completely enclosed valve operating gear; continuously finned cylinder head covers; two downdraft carburettors with compensation chambers; air supplied by common air cleaner with choke; crankshaft supported by two ball bearings; roller bearing connecting rod; full automatic spark timing; mechanical noise reduced to a minimum.

Frame: Closed, distortion-proof double-steel tubular frame with ball-and-socket joints for sidecar connection; fully enclosed telescopic front wheel suspension with hydraulic double-acting shock absorber; sprung rear wheel; front wheel fork requires no maintenance; soft, long-travel spring action; steering lock; adjustable sports-style handlebar; non-slip controls; steering damper; well-styled tank holding 17 liters (3.75 Imp. gall. or 4.50 U.S. gall.); fuel reserve 1.5 liters (1/3 gall. approx.); quick action filler cap; integral, rubber-sealed tool box; large-size kneegrips; comfortable full-floating saddle, adjustable for spring tension and hight; knock-out hub spindles front and rear; wheels are interchangeable (convenient where sidecar is used); wheel changing facilitated by front-wheel stand and hinged rear-wheel mudguard; tire size 3.50" x 19"; improved, high-efficiency DUPLEX front wheel brake of 7—7/8" (200 mm) drum diameter; 6-volt dynamo of 45/60 watts capacity with horn; large headlamp; speedometer with concealed illumination; electric neutral indicator; ignition lock; plug socket for inspection lamp or sidecar lamps; adjustable foot rests; long foot brake lever; deep-flared front mudguard; detachable luggage rack.

Transmission and shaft drive:

Power transmission by smooth-acting single-disc friction clutch; four-speed gear box in unit construction with suitable gear ratios; gear case with cover cap of drive shaft rubber joint; foot-operated gearshift mechanism incorporated in gear case and protected from dust; easy, quick-action shifting; fourth gear with shock absorber; auxiliary hand shifting lever; universal-joint shaft drive and spiral bevel gears, require no maintenance; all parts completely dust- and splash-proof.

Sports Model 600 c.c.-35 H.P.

BMW R 68

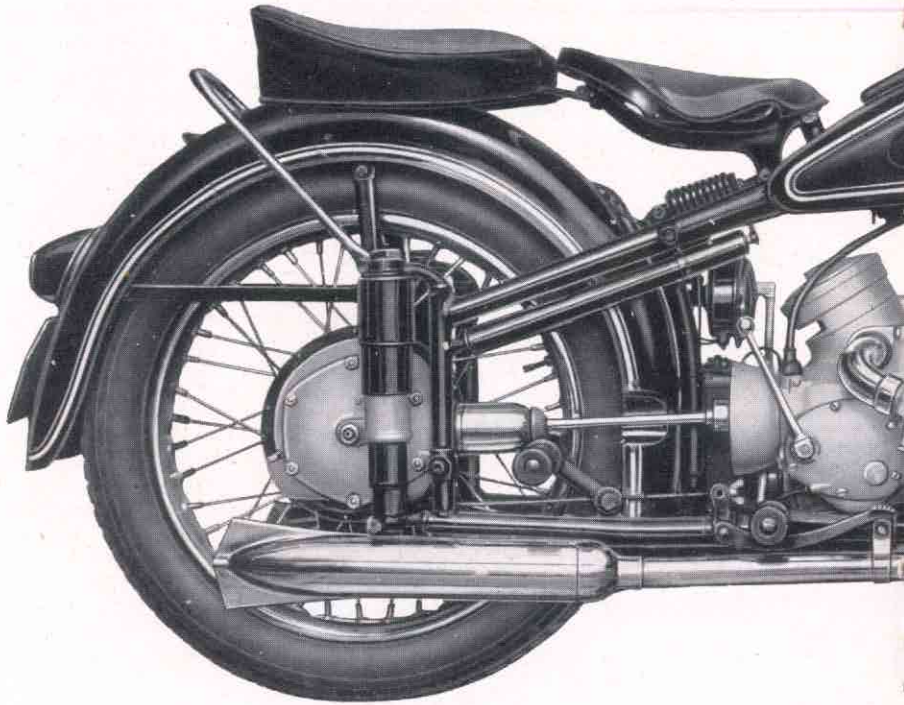
The preferences of sporting motorcyclists who are interested in maximum performance are fully met by the newly created BMW R. 68 which is a high-speed sports model though not an exclusive racing machine. All technical improvements tested in races and trials have been incorporated in the high-powered R. 68. Its engine, with a compression ratio of 8 to 1, develops 35 H.P. at 7000 r.p.m., this gives a controlled speed of 100 miles per hour (160 km/hr).

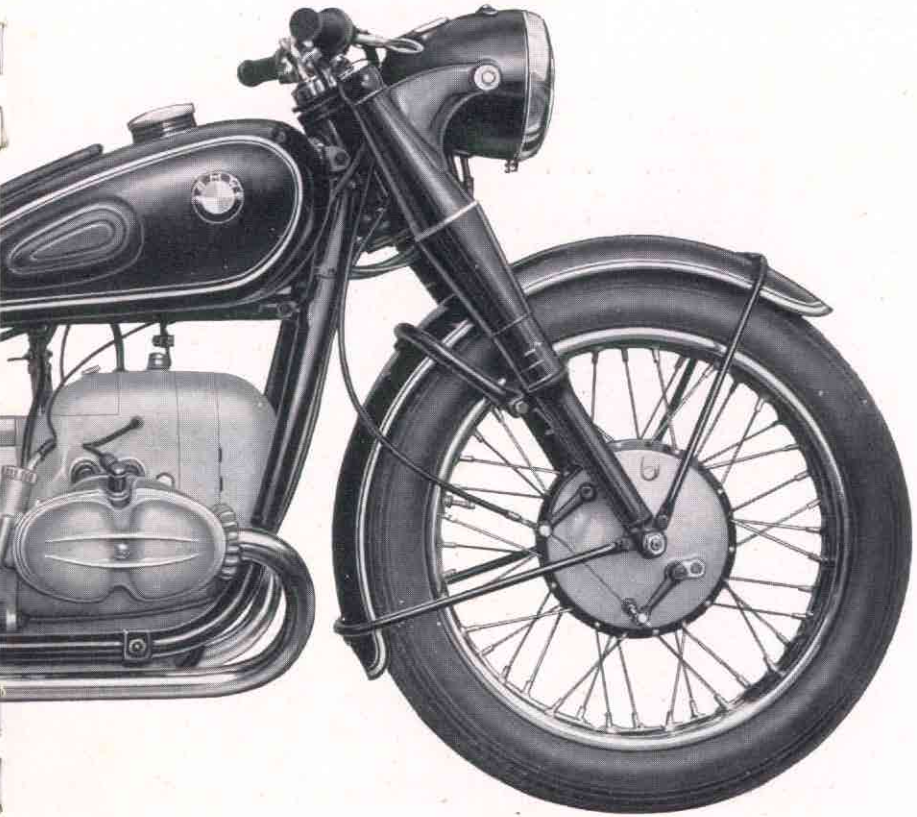
Engine.

35-H.P. flat twin four-stroke engine; overhead valves; fully enclosed valve operating gear; high-duty cylinder head; special type cylinders and pistons; reinforced crankcase; special type camshaft and valve timing mechanism; two special-type downdraft carburettors; air supplied by common air cleaner with choke; crankshaft runs in two ball bearings; steel roller bearing connecting rod; high-duty magneto with automatic spark timing and additional hand lever control.

Frame.

Closed, distortion-proof twin steel tubular frame; stand of ample width; fully enclosed telescopic front wheel fork with double-acting hydraulic shock-absorbers requiring no maintenance. The front fork also has a





soft, long-travel spring action. Narrow sports-type handlebar of special design; non-slip controls; thiefproof steering lock. The rear wheel is fully sprung. Special type control cables; steering damper is incorporated. Elegantly shaped tank holding 17 litres (3.75 Imp.gall. or 4.40 U.S. gall.); fuel reserve 1.5 litres (1/3 gall. approx.); quick-action filler cap; rubber-sealed tool box; large-size knee-grips; comfortable full-floating saddle, adjustable for spring tension and height. Interchangeable wheels with knockout hub spindle axles front and rear and hinged rear-wheel mudguard.

Duplex high-efficiency stiff and ribbed front-wheel brake of 7-7/8" (200 mm) drum diameter; special-type tyres 3.50"×19" 6-volt dynamo of 45-60 watts capacity, electric horn; large headlamp; speedometer with concealed illumination, reading 180 km/hr (112 miles per hour); electric neutral indicator; ignition lock; plug socket on frame for inspection lamp; adjustable foot rests; additional rear foot rests; long foot brake lever; narrow front-wheel mudguard.

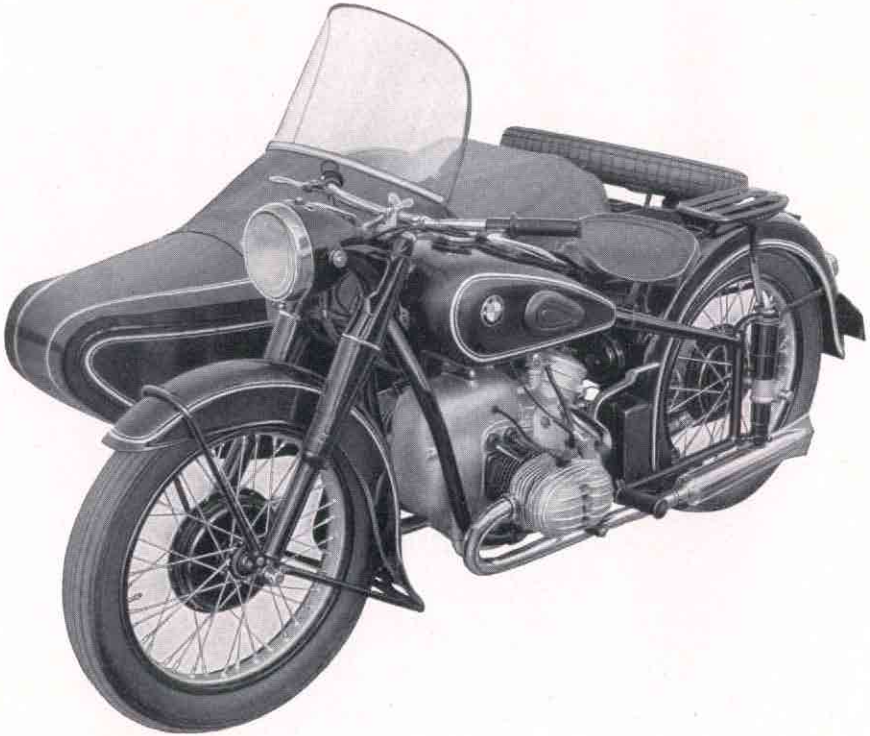
Gearbox and Shaft Drive.

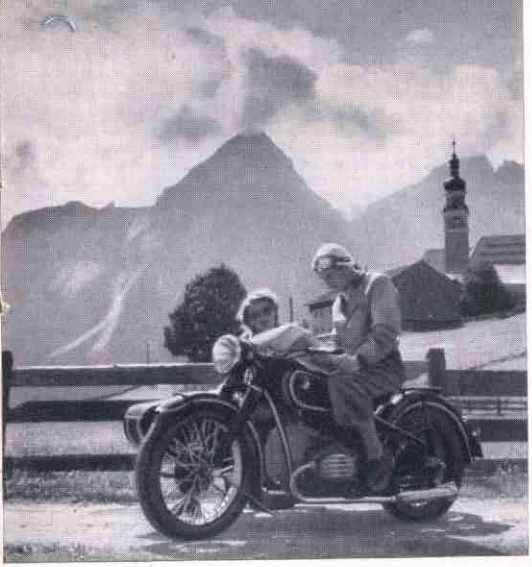
Transmission is by reinforced smooth-acting single-disc friction clutch; engine and gearbox of unit construction gear changing mechanism in gearbox is protected from dust; easy quick-action foot gear change; fourth speed has shock absorber incorporated. Auxiliary hand gear changing lever; (gearbox extends around rubber joint of drive shaft). The shaft drive with rubber joint requires no maintenance; spiral bevel gears. All working parts protected from dust and dirt.

Touring-Sports Model 600 c.c.-28 H.P.

with **BMW** "SPEZIAL" oscillating axle sidecar

BMW R 67/2





The BMW R 67/2 which is specifically designed for sidecar use now exhibits additional improvements regarding the engine, transmission and frame. The incorporation of an improved Dural alloy timing shaft drive gear, tappets of greater length, redesigned pistons, and inlet ports of larger cross section have led to an increase in horsepower to 28 H. P. The transmission with changed first gear ratio has been provided with a protection for the rubber joint of the shaft drive. The frame shows the following improvements: Duplex front wheel brake, wider centerstand, rubber-sealed tool box, improved saddle suspension, more comprehensive tool kit.

Engine:

28 H. P. twin-cylinder, opposed type, four-stroke engine with improved mounts; overhead valves; valve timing gear completely enclosed; continuously finned cylinder head covers; two semi-downdraft carburettors with compensation chambers; air supplied by common air cleaner of novel design, with choke; crankshaft supported by two ball bearings; steel roller-bearing connecting rod; full automatic spark timing; mechanical noise reduced to a minimum.

Frame:

Closed, distortion-proof double steel tubular frame with ball and-socket joints for sidecar connection; fully enclosed telescopic front wheel suspension with hydraulic double-acting shock absorber; sprung rear wheel; soft spring action; thief proof steering lock; adjustable sidecar-type handlebar; non-slip controls; steering damper; well-styled tank holding 17 liters (3.75 Imp. gall. or 4.40 U.S. gall.); fuel reserve 1.5 liters (1/3 gall. approx.); quick-action filler cap; integral, rubber-sealed tool box; large-size kneegrips; comfortable full-floating saddle, adjustable for spring tension and height; quickly detachable and interchangeable wheels with knock-out hub spindles front and rear are provided (particularly advantageous for side car work) wheel changing facilitated by front wheel stand and hinged rear wheel mudguard; tire size 3,50" x 19"; Duplex Brakes of 7-7/8" (200 mm) drum diameter; 6-volt dynamo of 45-60 watts capacity with horn; large headlamp; speedometer with concealed illumination; electric neutral indicator; ignition lock; plug socket for inspection lamp or sidecar lamps; adjustable foot rests; long foot brake lever; deep-flared front mudguard; detachable luggage carrier.

Transmission and shaft drive:

Power transmission by smooth-acting single-disc friction clutch; four-speed gear box in unit construction with suitable gear ratios; dust-sealed gearshift pedal; easy, quick-action shifting; protection cap for rubber joint of shaft drive; fourth gear with shock absorber; auxiliary hand shifting lever; universal-joint shaft drive and spiral bevel gears, require no maintenance; all shaft drive parts completely dust- and plash-proof.

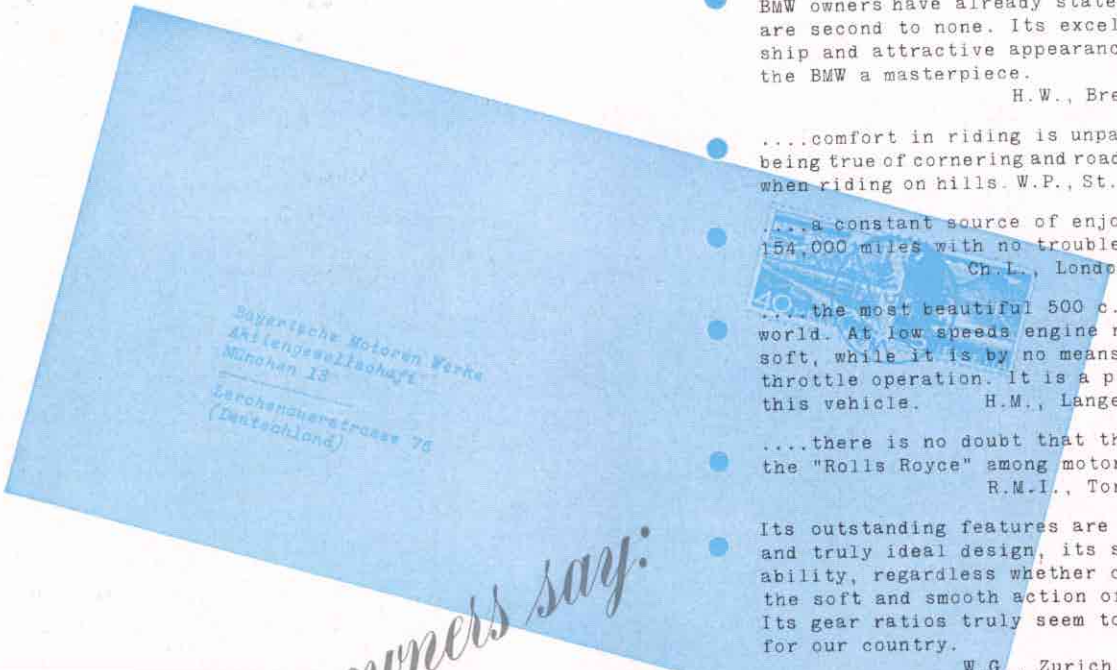
"Spezial" Oscillating Axle Sidecar:

Connected by four ball-and-socket joints; torsion bar spring with crank arm; spacious sidecar body, rubber-mounted in front, leaf-sprung in rear; separate seat and back cushions; large "Cellon" plastic windscreen; impregnated apron; rear luggage compartment with lock; spare wheel bracket. Dimensions: Over-all width of combination: 60" (1510 mm); over-all length of combination: 100" (2500 mm); road clearance: 8-1/4" (210 mm); weight of sidecar without spare wheel: 210 lbs. (96 kg).

Specifications

	R 25/2	R 51/3	R 67/2	R 68
Engine performance HP	12	24	28	35
Number of cylinders	1	2	2	2
Cylinder capacity	245 c. c.	490 c. c.	590 c. c.	590 c. c.
Bore and stroke	68×68 mm	68×68 mm	72×73 mm	72×73 mm
R. p. m.	5800	5800	5600	7000
Compression ratio	6.5:1	6.3:1	6.5:1	8.0:1
Dynamo	6 V/45-60 W	6 V/45-60 W	6 V/45-60 W	6 V/45-60 W
Carburettor	Bing 1/22/44	Bing 1/22/61/62	Bing 1/24/25/28	Bing 1/26/9/10
Gear ratios				
1st gear	6.1:1	4.0:1	4.0:1	4.0:1
2nd gear	3.0:1	2.28:1	2.28:1	2.28:1
3rd gear	2.04:1	1.7:1	1.7:1	1.7:1
4th gear	1.54:1	1.3:1	1.3:1	1.3:1
Ratio transmission/rear wheel				
Solo	4.5:1	3.89:1	3.56:1	3.89:1
No. of teeth	6/27	9/35	9/32	9/35
Sidecar	5.14:1	4.57:1	4.38:1	
No. of teeth	7/36	7/32	8/35	
Tank Size	3.2 U. S. gall. = 2.66 Imp. gall.	4.5 U. S. gall. = 3.75 Imp. gall.	4.5 U. S. gall. = 3.75 Imp. gall.	4.5 U. S. gall. = 3.75 Imp. gall.
Fuel consumption Solo m. p. g.	94 Imp. 80 U. S.	63 Imp. 52 U. S.	62 Imp. 51 U. S.	62 Imp. 51 U. S.
Sidecar m. p. g.	82 Imp. 69 U. S.	55 Imp. 44 U. S.	50 Imp. 41 U. S.	
Oil consumption per 1000 miles	3 pints	3 pints	3 pints	3 pints
Maximum speed				
Solo, rider crouched low	60 m. p. h.	84 m. p. h.	91 m. p. h.	100 m. p. h.
Solo, sitting position	56 m. p. h.	78 m. p. h.	84 m. p. h.	93 m. p. h.
Solo, sitting position with pillion rider	49 m. p. h.	75 m. p. h.	81 m. p. h.	91 m. p. h.
With sidecar and passenger	142 kg approx.	60 m. p. h.	68 m. p. h.	
Weight ready for operation	305 lbs.	190 kg approx.	192 kg approx.	193 kg approx.
		418 lbs.	422 lbs.	424 lbs.
Tires	3.25×19	3.50×19	3.50×19	3.50×19
Overall width	31"	31"	34.5"	29.5"
O/A length	80"	84"	84"	84"
Height of saddle	28"	28"	28"	29"

Specifications subject to change without notice



What BMW owners say:

- I can only repeat what perhaps thousands of BMW owners have already stated: BMW products are second to none. Its excellent workmanship and attractive appearance have made the BMW a masterpiece.
  H.W., Bremen, Germany

- ....comfort in riding is unparalleled, the same being true of cornering and road holding, especially when riding on hills. W.P., St. Gallen, Switzerland

- ....a constant source of enjoyment. Have covered 154,000 miles with no trouble whatsoever.
  Ch.L., London, Great Britain

- ....the most beautiful 500 c.c. machine in the world. At low speeds engine noise is agreeably soft, while it is by no means noisy under full throttle operation. It is a pleasure to travel on this vehicle. H.M., Langensteinbach, Germany

- ....there is no doubt that the BMW may be named the "Rolls Royce" among motorcycles.
  R.M.I., Toronto, Canada

- Its outstanding features are its straightforward and truly ideal design, its surprising starting ability, regardless whether cold or warm, and the soft and smooth action of its engine. Its gear ratios truly seem to have been intended for our country.
  W.G., Zurich, Switzerland

- ....been designed to be a convenient, clean, and fast touring machine the performance of which is maintained for many thousands of miles.
  B.E., Watfort, Great Britain

- The low fuel consumption of the sidecar model is surprising. Dr.v.d.U., Lobberich, Germany

Always ahead of the field

As far as important motorcycle road races are concerned, BMW has been concentrating its efforts on the 500 c.c. solo and sidecar classes. In addition, 250 c.c. BMW motorcycles compete regularly in classic trials. In doing so, we followed our intention of competing in those classes which are identical to the actual production models. — Sunday after Sunday hundreds of thousands of people rushed to the race circuits in order to witness impressive BMW successes several of which were won against both champions and motorcycles of world fame. All Championship Road Races were dominated by BMW machines finishing far ahead of the field. Of the six Championship Road Races held every year in the individual classes, BMW machines — the most successful make — won all of the three German championships available in the 500 c.c. solo and the 500 c.c. and 750 c.c. sidecar classes. So this is what we feel justified to be proud of:

3 German Championships won by **BMW** *the outstanding Achievement of 1951 Road Races*

Eilenriede Races

•

solo 500

FIRST

sidecar 500

FIRST

sidecar 750

FIRST

Riem Road Races

•

solo 500

FIRST

sidecar 500

FIRST

sidecar 750

FIRST

Peak Performance in

German Grand Prix

•

Solitude Races

sidecar 500

FIRST

solo 500

speed 135,7 km/h speed of winner and world champion 136 km/h

Nürnberg Road Races

•

solo 500

FIRST

sidecar 500

FIRST

sidecar 750

FIRST

Feldberg Races

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Hockenheim Races

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solo 500

FIRST

sidecar 500

FIRST

Road Races and Trials – High-quality Production Models

Grenzlandring Races

•

solo 500

FIRST

sidecar 500

FIRST

Deutschlandfahrt Long Distance trial

•

10 gold medals

2 team awards in gold

Solitude 8 Hours'

•

6 gold medals

2 team awards in gold

Austrian Alpine Trial

•

Class Winner gold medal

„Edelweiss"-winner

fastest of all competitors

Bavarian Mountains Trial

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10 gold medals

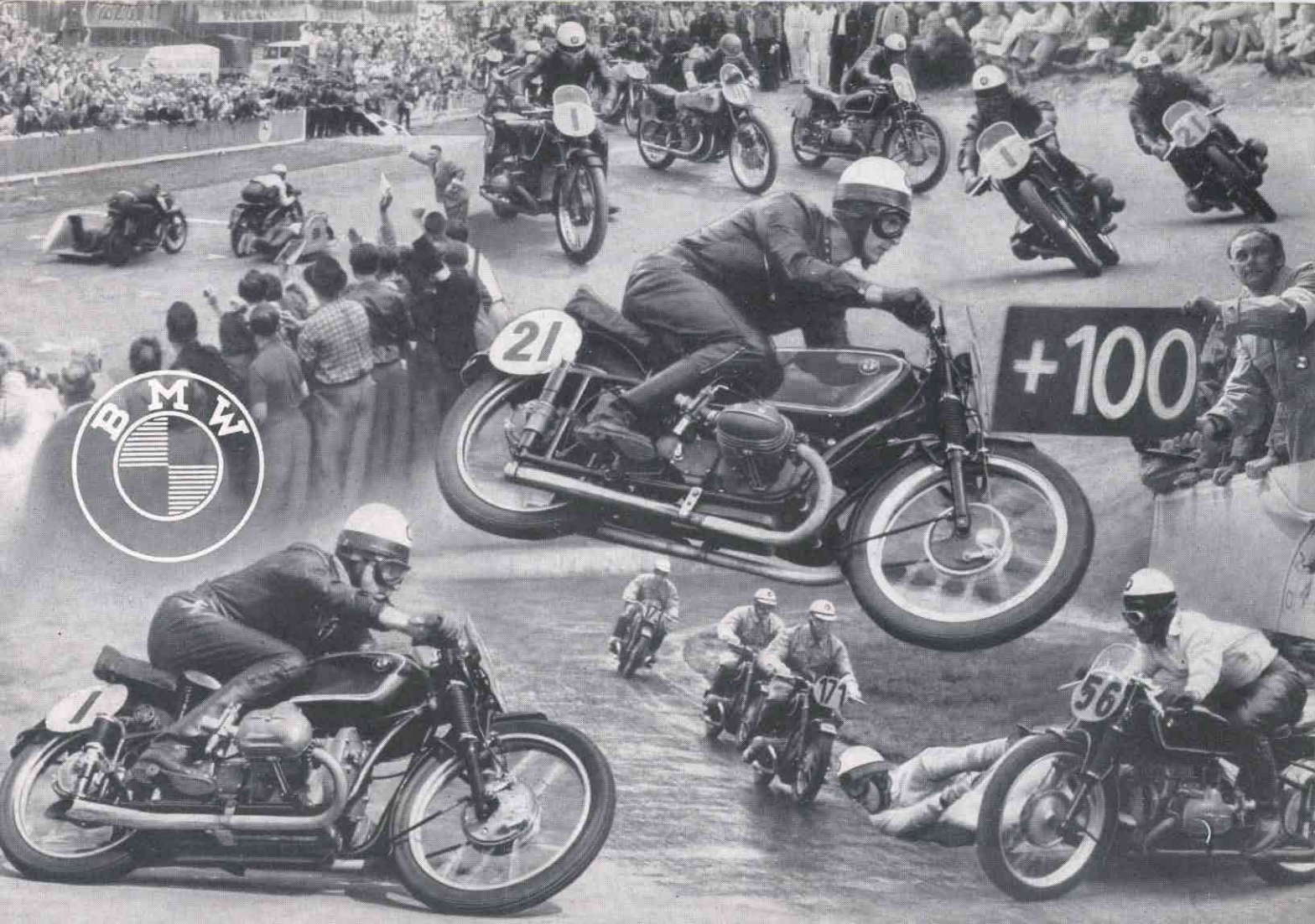
3 team awards in gold

International 6 Days trial

•

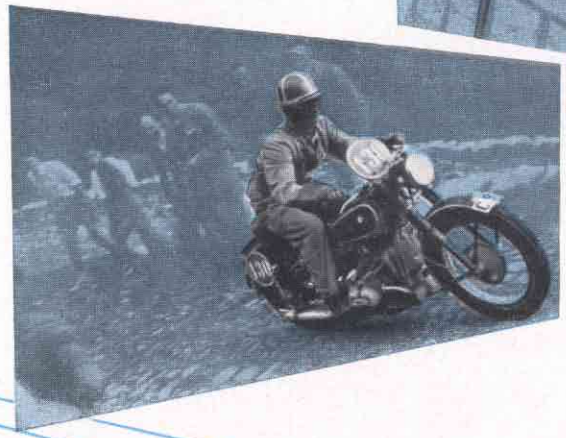
7 gold medals

3 silver medals


BMW
21
+100
171
56

BMW *production models are constantly being improved by incorporating race experience*

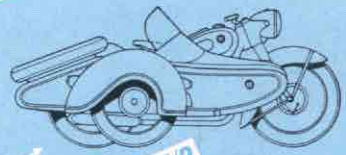
This is applicable to every BMW motorcycle which embodies, for your profit, the experience gained by numerous racing victories and endurance trials.



BMW *motorcycles are spread over 53 countries of the world*

Riding proves the value

R 25/2



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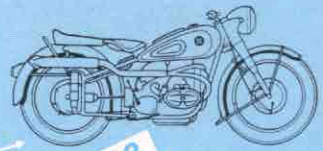
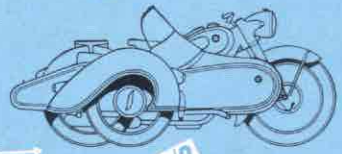
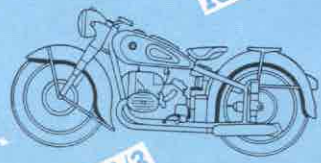


R 68



R 25/2



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