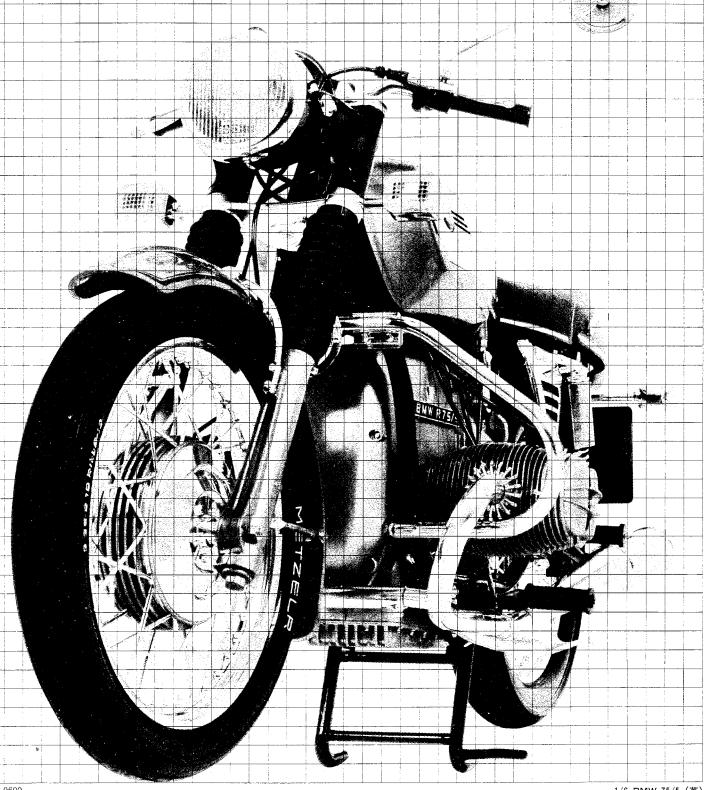
1:6SCALE SUPER DETAILED B.M.W. OPPOSED FLAT TWIN ENGINE COIL SPRUNG WORKING FRONT & REAR SUSPENSION SUPER DETAILED SEMI-PNEUMATIC RUBBER-LIKE TYRE REALISTIC LEATHER-LIKE SEAT SCALE SCALE TAMIYA
TAMIYA, INC.





THE HISTORY OF B.M.W.

B.M.W. was born on the 7th March, 1916. These famous initials stand for "Bayerischen Motoren Werke", which, translated into English means The Bayarian Motor Works.

We would emphasise here that they did, at that time, only make engines, and the German for engines is "Motoren".

B.M.W. was formed by the amalgamation of two Munich firms. One was known as Rapp Motoren Werke GBMH, which had been in existence since 1912 and manufactured engines for ships, aircraft engines under licence, and also their own 4 and 6 cylinder in-line aircraft motors.

The other firm was known as Gustav Otto Flugmaschinfabrik, which later became the Bayerischen Flugzeug Werke, and this Company occupied the actual site on which B.M.W. stands to this day.

On a cold January day in the third year of the First World War, a young engineer named Max Friz called at the factory and asked to see Mr. Rapp. the Managing Director.

Mr. Rapp had plenty of troubles.

The problem of those days was that aircraft engines lost power rapidly as they gained height, and at that time this phenomena was not fully understood.



Max Friz

Now we come to the reason for Max Friz's visit. He had designed a very advanced, 6 cylinder engine which, in effect, on the ground, had a carburettor setting for 2,000 metres. Also, this engine did not require a super-charger, and at that time the only way to get power at height was by super-charging the engine, thereby pushing in more air and so getting more power. Obviously weight was of terrific importance, and super-chargers were heavy. The Friz Motor did not employ a super-charger, and therefore was quite a break-through in design.

Friz and his associates finally convinced the "Powers that be" that this engine of his really was superior, and he came back to Munich with an order for 2,000 of these motors. This was a great day for B.M.W.

This engine was used with very great success by Baron von Richthofen and his famous "Flying Circus".

However, Friz was still not satisfied and tried to improve on the B.M.W. IIIa, which was the designation of this engine.

At this time many Banks were interested and wanted to finance B.M.W. However, a Banker by the name of Camillo Castiglioni was ready to put in four million marks, and it was at that time that the B.M.W. Company as it is today was formed. The date was the 13th August, 1918. In November, 1918 the Armistice was signed, and as everybody now knows, this was a very bad time for Germany. In the Works it was felt that very heavy and difficult times were ahead.

At B.M.W. they held the view that aircraft motors were, after all, not only useful in war, and hoped that they might be able to make engines for the Civil aircraft industry, but this was not to be, and Allied Officers, who inspected all factories producing war material, insisted that all tools and methods of making aero engines

or any other war weapons had to be destroyed. In a very small corner of the factory, and in complete secrecy, Chief Designer Friz had finished and assembled his improved B.M.W. IV Engine. He was convinced that the B.M.W. IV was capable of great things, and completely blind to the conditions then prevailing, felt compelled to satisfy his own convictions.

Revolution was in the air. Food was short and there seemed to be no authority. Law and order and broken down.

Even under those conditions there was, in the corner of a hanger at Munich Airfield a very old biplane. Miraculously, the Allies had overlooked it. Friz got together a group of skilled engineers from the factory, and in secrecy they installed his brain child, the B.M.W. IV into this aircraft. This was done under great difficulties as the Revolutionaries had guards at the airfield entrances.

However, the aircraft, a DFW C IV, was finally ready for its test flights, and a pilot by the name of Zeno Diemer voluntecred to fly it. On a sunny morning on the 9th of June, 1919 the engine was started and Diemer proceeded to take off. Then he started to worry because he could not remember whether he had put a barograph in the aircraft or not!

The suspense lasted for two hours. At last, turning into wind the machine made a perfect landing. Not one, but two barographs were in the aircraft, and Friz and his friends could hardly believe the evidence that Diemer had reached a height of 9,700 metres, an amazing achievement. Word of this great venture soon got around Munich, and from that time onwards Friz could have anything he wanted, and so, with the blessing of all concerned, the second flight took place on the 17th June, 1919, and again the record height was reached. This was indeed a world record, but regretfully it was never recognised as such because there was no Body then existing which could authorise such records. But it is generally acknowledged, even today, that this was a supreme achievement.

The success of this world altitude record gave a terrific injection of confidence to B.M.W. during those very difficult times

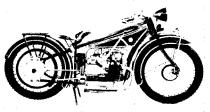
We realise that our readers are more interested in the Motorcycle story of B.M.W., but it should be stated that the Company did go on to build very fine aircraft engines, which not only powered many airliners in the inter-war years, but were also used extensively in military aircraft in World War II.

(The First B.M.W. Motorcycle)

At the Auto Salon in Paris in 1923 there was a sensational motorcycle exhibited for the first time. This machine had two horizontally opposed cylinders, the engine was fitted transversely across the frame, and the drive to the back wheel was by means of a shaft. All moving parts except, of course, a little bit of shaft were totally enclosed from mud, dust and other types of foreign matter, and the motoring press and other specialists were quite astounded by this new design. This machine was the first B.M.W. motorcycle design by Max Friz and it was known as the B.M.W. R32.

Let us examine the events that led up to the appearance of the R32. It was in the year 1919. as we now know, that B.M.W.'s business was at its lowest ebb.

Whilst the Managing Director, Mr. Rapp went to Vienna to visit his friend and banker, Castiglioni, to see what advice he could get, Max Friz was looking round the factory to see what bits and pieces he could get together, and whether some sort of manufacture could be started. Friz was successful to a limited degree. They were able to manufacture in small quantities engines for lorries and various stationary purposes, auxiliary motors for bicycles, and even a boat engine which went under the name of the "Bayern



BMW R32

Motor". But all these efforts were insufficient to put B.M.W. on a business-like footing.

B.M.W. decided to try and find sub-contract work. The German Railways required air brakes. Then the Kunze-Knorr-Bremse AG, a firm specialising in the manufacture of brakes, gave B.M.W. a fairly large order, and at the same time made quite a good offer to buy the whole factory. This was a dangerous point the in history of B.M.W.

It should, however, be noted here that they were making, even at that time, a $6 \frac{1}{2}$ h.p. 2 cylinder, horizontally opposed engine called the M2B15 which was for a motorcycle known as the "Victoria", and they were also building a complete motorcycle under the name "Helios".

However, Castiglioni and Rapp, in the Spring of 1922, found the answer to this situation. They sold the B.M.W. factory to the Kunze-Knorr-Bremse Brake people for a good price, and got their capital out. Then Castiglioni bought the neighbouring firm of Bayerischen Flugzeugwerke for 4 million D.M. (inflation was well under way at that time.)

Having made this purchase, Castiglioni then asked the new owners of the B.M.W. name and factory whether they would be prepared to sell the machine tools which B.M.W. had used for making engines, and also the name B.M.W. This they were very willing to do, as they had no use for these tools, nor for the name, and it was then that the tools were moved into the huge wooden halls of the former Bayerischen Flugzeugwerke, and with their own name of B.M.W., work was started once again in this new home.

A few days after the re-settling process, Works Director Popp turned round to Friz and said, about the Helios Motorcycle, "What do you think of this machine?". Friz answered that he felt it was completely unsaleable, and one had to be a tight-rope walker in order to ride it. Popp then said "And what do we do about it?" and Friz replied the best thing would be to find a very deep lake and throw it in, to which Popp replied "If we had only one piece I would follow your advice, but we have a whole stock of the damned things in various stages of manufacture, and therefore we must build them and sell them, or else find a lot of tight-rope walkers".

Friz was not very happy at this reply. After all, he was a specialist in the construction of aircraft engines, and did not like to give his name to the so-called improvement of such an object. Popp then said that if Friz could bring the motorcycle up to a reasonable standard he promised him, firstly that his name would not appear, and secondly he would give Friz a free hand to design his own machine.

Friz did re-design the "Helios" so that it became a roadworthy product.

During a discussion in Mr. Popp's office, Friz was trying to explain the design principle for his new motorcycle, which subsequently proved to be the R32. He could find no piece of paper handy except for a beer mat, and on this the very first sketches of this great engineering masterpiece were drawn. Unfortunately the beer mat no longer exists.

There were many doubts as to whether such a revolutionary machine would be practicable. So

many things were completely new: transverse engine, shaft drive, a cylinder sticking out either side which might stop the machine from cornering. But when, at long last, the prototype stood in the factory, all doubts disappeared. It was indeed a most beautiful creation. It really looked right. It was then taken out on to the road in and around Munich, quite openly, and seemed to justify all hopes.

Friz wanted to give the machine a better test. The local Automobile Club was running a One-Day Reliability Trial called "Through the Bavarian Mountains". Friz entered the new machine, finished the Course, and although there was not much wrong, there were one or two little things which were not quite right and which rather dimmed his optimism a little.

The 1920s and 30s—between the two World Wars— were the golden years of the motorcycle. It was thrilling to ride, reasonably cheap to buy, and also very useful as transport, but above all, gave an excellent outlet for sport and racing. In the world of sport Motorcycle Racing, and to a lesser degree, Motor Racing, was becoming very popular indeed, and racing riders were the heroes of the day.

In the motorcycle world, England was the undisputed leader. Norton, Sunbeam, A.I.S. and Rudge were names that made the heart of every motorcycle fan beat a little faster. Names of Swiss and Italian firms such as Moto Saccoche and Guzzi also had very fine international repu-The Germans really had to fight in order to get business for their Brands such as N.S.U., D-Rad, Makeco, Wanderer and various other makes which appeared at local races, a few of which won, but were hardly heard of in foreign countries. B.M.W. meant nothing to anybody, and on hearing these initials people thought of aircraft engines and days gone by. In the year 1923, Friz decided to show the B.M.W., not only at the Auto Salon in Paris, but also at the famous Solitude Race Track. For the Racing version of the machine a special engine was made with steel cylinders and overhead valves. Friz went to the Course, but the machine did not finish the Race because of engine trouble.

When they got back to Munich a new Racing engine was developed. The overhead camshaft M2 B36, which was then thoroughly tested. At the beginning of 1924 it was entered for a few minor Races where it proved very successful. Again B.M.W. entered for the Solitude, this time with three machines. The Riders were Schleicher, who was an Engineer who had worked on the construction of the machines, Reich and Bieber.

They had very great success. The three B.M.W. motorcycles, which were entered for all Classes—which was possible in those days—won all the First Prizes with such ease that the competition could have no hope in the future. In addition to this, Reich had the Best Time of the day. B.M.W. became famous overnight.

The Solitude Races were in the middle of May, 1924. A week later the Team were completely successful in the annual Avus Races in Berlin, where they obtained the first German Record, A month later they won the German Championship, and by the end of the year had obtained five further First Prizes and Best Times in various International Races.

The year 1925 ended with the greatly improved B.M.W. R37 500cc machine winning 91 First Prizes on the International stage. It was a success without equal. B.M.W. had at last overcome their post-war difficulties.

However, all their Continental successes did not count in World Classes. It was now essential to travel to England and to compete against the English on their own ground.

The English had, above all, a very famous Reliability Trial which lasted for six days. This was probably the greatest cross country Test for motorcycles, and in the year 1926 B.M.W. felt that they were ready to enter this famous Event, though unofficially.

Schleicher, the young engineer, who at that time was at the top of his form, received permission to compete with a B.M.W. R37 as a private entry. After arrival in England he decided to inspect the Course, and came to the conclusion that he would need cross country tyres. He contacted all possible Garages in England to obtain these, but there was not one cross country tyre to be had anywhere. He therefore decided to take his chance with normal road tyres, though realising that this might be a risk to his life. Nevertheless, when the day of the Race arrived, he accepted the situation, got on his machine and went like the devil.

At the Finish he won the first Gold Medal ever awarded to a German in the British Isles.

B.M.W., with the basic design of the machine unaltered, went on, in later years, to win all the greatest Prizes in competitive motorcycle Racing. Obviously the engine was developed in both size and power, and it was eventually supercharged, but it still remained a transverse, horizontally opposed two cylinder!

The huge list of World Records and, Prizes won is too long to quote here, but some of the more outstanding successes are as follows:-

ERNST HENNE, with streamlined versions of the machine reached the following speeds in obtaining the Absolute World Records as under:

mig m	c module won	d record	as unuer.
1929	216.8 Km/H	1934	246.1 Km/H
1930	221.5 "	1935	256.1 "
1931	238.3 "	1936	272.0 "
1032	244.4 "	1037	270 5 "

In addition, Henne held the following absolute World Records for Sidecar machines:

1931 190.8 Km/H 1932 207.7 Km/H

No chronicle of B.M.W. would be complete without the name of Georg Meier, who won the European Championship in 1938 on a 500 c.c. B.M.W. He also won the Senior Tourist Trophy in 1939. Second place in this Race was also taken by a B.M.W. machine ridden by an Englishman, Jock West. This was the last T.T. before

During the years 1939 to 1945 B.M.W. built the famous R75 machine for the German Army, amongst many other military vehicles. They also, of course, manufactured aircraft engines for the Luftwaffe.

World War II

At the end of World War II, B.M.W. still had a very fine name but not much else, because after the Armistice they were subjected to the humiliation of being torn apart by the Allies for the second time.

But they did have some luck. The American Forces of Occupation used the factory as a workshop and repair depot for their military vehicles and equipment, and because of this, B.M.W. were able to keep most of their skilled workers.

In 1948 they received permission to manufacture motorcycles again, up to a cylinder capacity of 250 cc. This machine was the single cylinder shaft drive known as the R24. For this it was impossible to satisfy the demand. However, in 1949, 9450 machines were made. In the next year production rose to 17,100 and then rapidly increased to 25,000 in 1951, and more than 28,000 were despatched from the factory in 1952.

In 1953 the sales for motorcycles began to fall sharply.

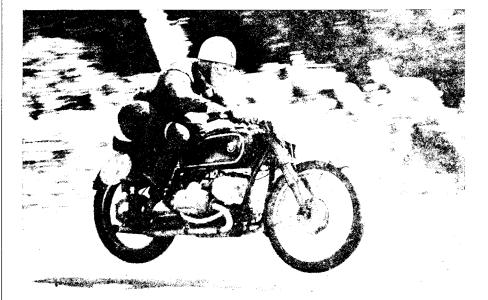
A 6 cylinder car of 60—65 h.p. had been designed in 1951 but was not ready for delivery until 1952. However, it was not a great success. Shortly afterwards an 8 cylinder engine was fitted into this car and it made all the difference, and sales figures rose.

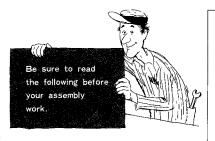
However, B.M.W. seemed to fall between two markets. They were selling a high quality car and also motorcycles, and they wanted something between these two extremes. The result was the Isetta, a basic 4 wheeled vehicle powered by a motorcycle engine, and this was followed by the 600, which was a 4 seater. This led to the development of the B.M.W. 700, which was a marvellous little car and which did have great success.

In 1959, B.M.W. had another financial crisis. In that year they lost $9\frac{1}{2}$ million DM.

It was then decided to produce a medium sized car which finally became the B.M.W. 1500. This vehicle was the forerunner of the now famous B.M.W. 1800 and 2,000 Series, which are very much in demand right up to the present day. As is now well known, the motor car range was supplemented by the 6 cylinder cars, 2500, 2800 and the 3 litre, and this formidable range of vehicles has become very successful in all markets of the world.

B.M.W. still manufacture motorcycles of the highest quality. using the same principles which Chief Engineer Friz laid down in 1923. Their very latest and most beautiful model is the R75/5, the subject of this Kit.





 \bigstar Before each assembly work, be sure to read instruction for the work.

 \bigstar Get a knife, a driver, a pair of nippers and a file ready.

*When removing parts off the runner, don't do so by your hand but cut each parts off carefully with a knife or a pair of nippers. *First construct parts without gluing tentatively, and check up the adhesive part. And then construct these parts.

 \bigstar Be sure not to apply adhesives too much but little by little onto both surfaces to be glued together.

 \bigstar Blue-coloured portions in the fllowing figures indicate that they should be applied with adhesives.



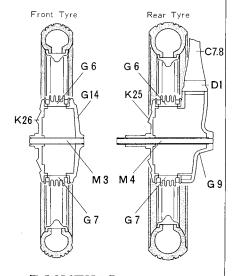
This mark in the figure indicates, that the marked parts should be painted.

Fig. 1 Lengths of Vinyl Cords
Cut Black Vinyl Cords properly in lengths
as shown in the figure. The cut ends
should not be slanted.

Fig. 2 Construction of Main Stand and Rear Shock Absorber

Parts of Main Stand and Rear Shock Absorber are weighted, so construct these parts first and take time enough to adhere.

Fig. 3 Construction of wheels Construct Wheels as shown in the figure at right. Paint the letters on Tyres white.

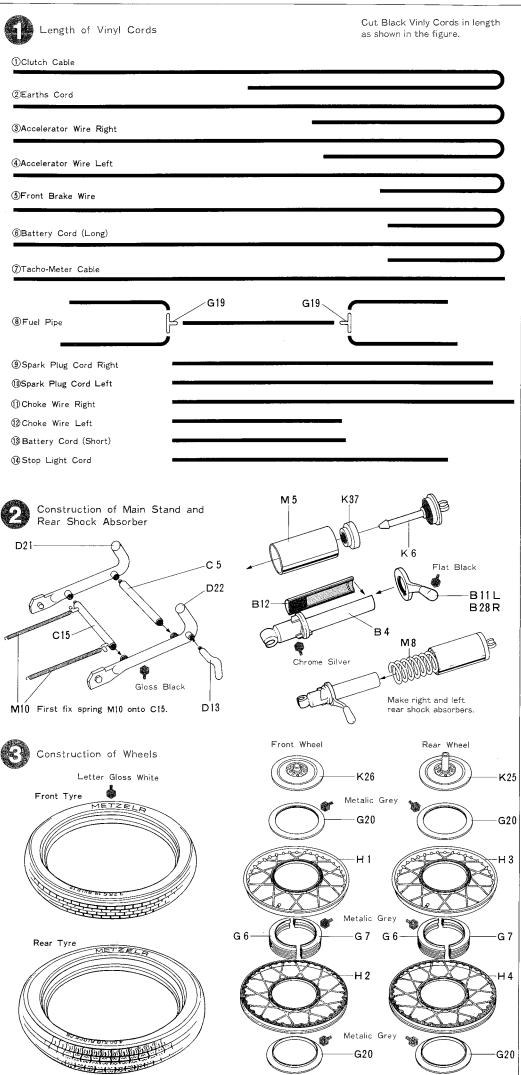


PAINTING

Timing of painting:

Key to good painting of those parts which should be painted in a same colour is to paint them after they have been constructed. When portions to be painted are either smeared with overflown adhesives of unevenly jointed, file those adhesives off, or get uneven portions even with good filing.

Do your assembly work scrupulously, paying close attention even to fixing of a small vis and you will be assured of a splendid model.



TAMIYA Fig. 4 Construction of Front Fork Front Fork is movable through Brass Pipe E 3-Construction of Front Fork and Spring. Cut off extra part of Brass Pipe with a file and adjust it in order to E 1 move smoothly. G18 B14 Gloss Black C 6 M 1 Stractual drawing of Front Fork -E 1 K34 E 4 E1 E3 B14 M 9 M9 M 2 G18 M 6 M 1 M 1 M 2 M 2 J 1 D23 D23 G11.12 Orange Parts M 6 (G10, 13)Damper Boots K 33 K 2 Fig. 5 Application of Decal G 11 Apply Decal before fixing of Front Fender. Use a black mark when Body colour is either silver or golden, and use a white colour in blue Body. G 12 Orange Parts G 13 K 32 **Ġ**10 D左 D右 Application of Decal K30 Transparent Parts C右 (Right) Transparent Part E7 A 3 Decal D 5 D右 (Right) Apply Decal before fixing of transparent parts. K 7 C左 C右 `C左 (Left) (Right) K 5 E 8 Fixing of Parts PAINTING D左 K15 (Left) M13 M14 G14 Painting of Front Fork Apply paint to Front Fork with Damper 0 Boots masked before Fender is fixed to it. Construction of Front Brake Drum A 3 B19 K15 Fix nuts with C12. -G14 M13 C12

Cord ⑤

B17

M 3

Fig. 7 Fixing of Rear Shock Absorber
Fix Rear Shock Absorber before constructing of Left and Right Main Frame.
Right and Left control levers are fixed symmetrically.

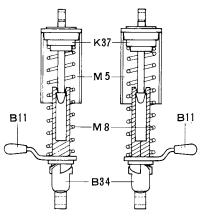


Fig. 8 Application of Decal Apply Decal before Rear Fender is fixed in Frame. Mark is the same colour as Front Fender.

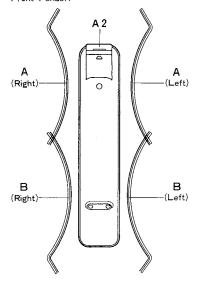


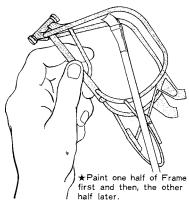
Fig. 10 Construction of Parts
Vinyl Cords should be joined together
Electric System Parts. Make sure that
together what parts Vinyl Cords should be
joined.



PAINTING

(Painting of Frame)

Frame should be carefully painted by halves. Apply two thin coats of paint to Rear Fender.



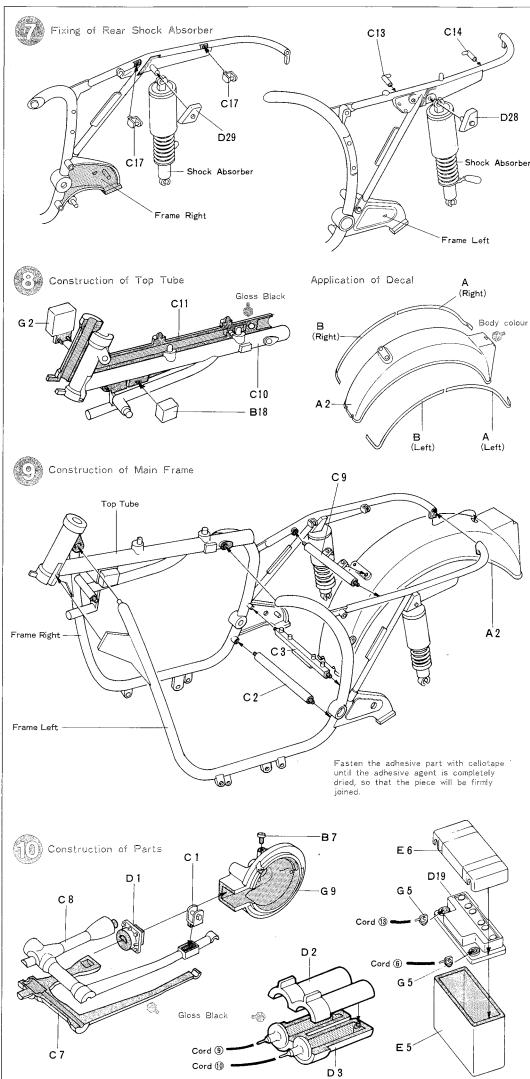


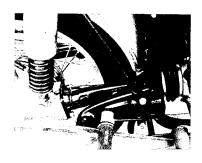
Fig. 11 Fixing of Parts (to Frame) Fix each part to Main Frame. Basic Construction of Frame ends before fixing of Rear Tyre in Fig 13. Check up the adhesion of each parts.

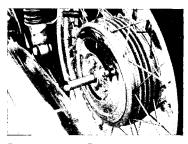


(Completed Frame)



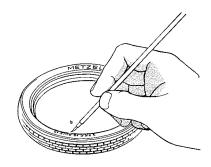
Fig. 12 Construction of Rear Brake Rear Brake is movable through Spring. The position of fixing Brake is the inside of Frame. See the picture below.





PAINTING

(Painting of Tires) Paint letters on Tires in gloss white.



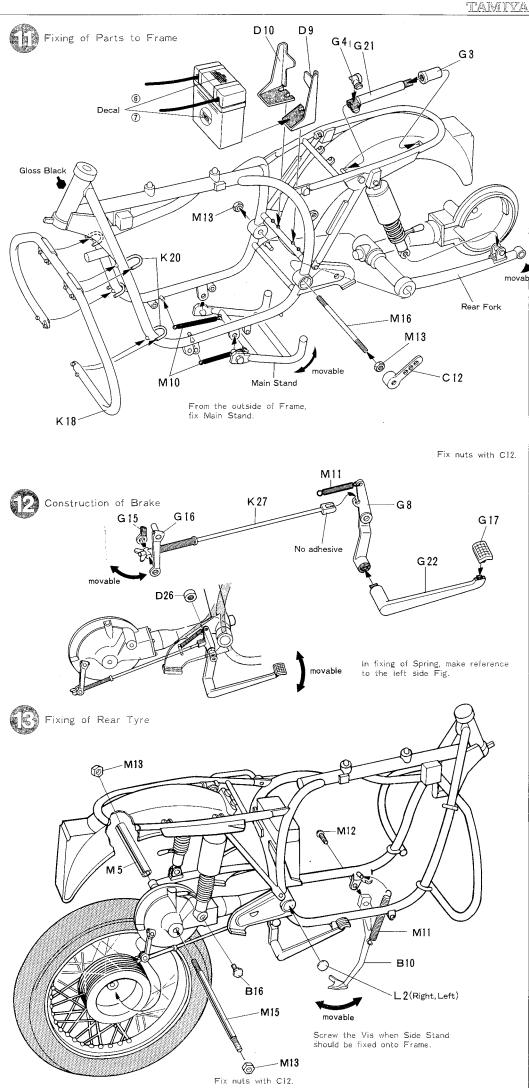
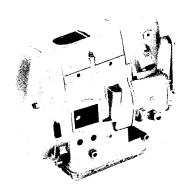


Fig. 14 Construction of Kick Pedal Kick Pedal is movable though Spring. Be sure not to smear the shaft of Pedal, with adhesives.



Fig. 16 Construction of engine First construct Engine without gluing tentatively, and check up the adhesive part. And then construct it.



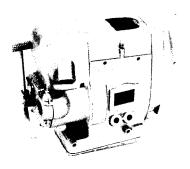


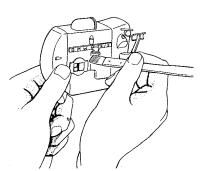
Fig. 17 Construction of Carburettor Each Right Carburettor and Left one has three Vinyl Cords. Check the part number of Carburettor.



PAINTING

(Painting of Engine

Paint Engine in silver as if to rub the silver into it. Use the half-dried silver.



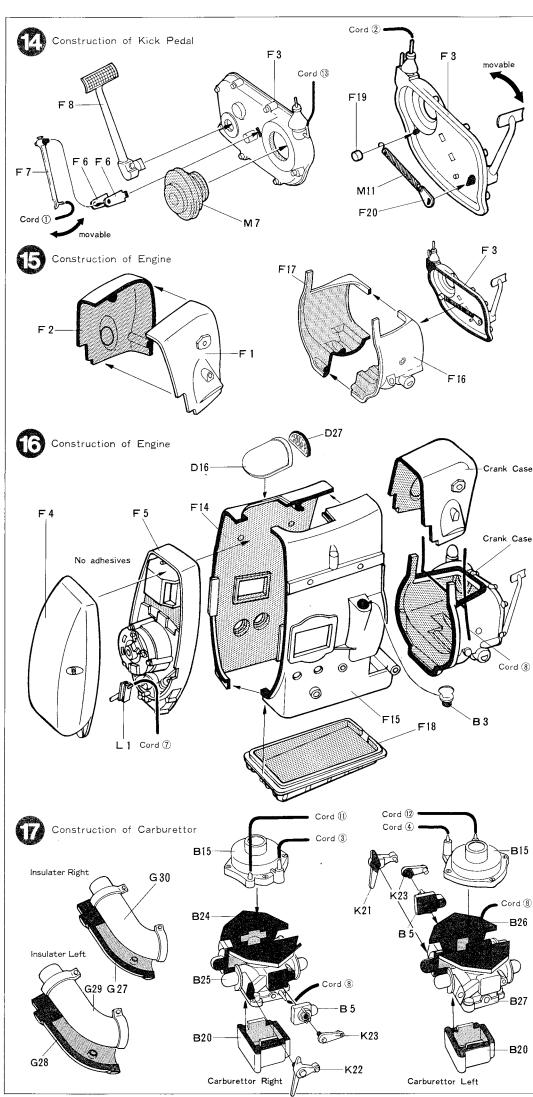


Fig. 18 Mounting of Engine
Put Engine into Frame before fixing Cylinder. Secure the only front part of Engine with B9s.

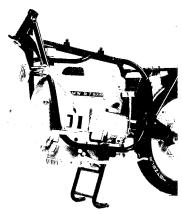


Fig. 19 Fixing of Handlebar Parts Both Clutch lever and Brake lever are movable. Be careful when you fix these parts. Make sure that together what parts Vinyl Cords from each lever should be joined.

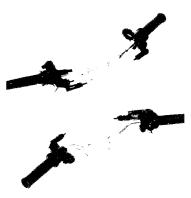


Fig. 20 Construction of Muffler When constructing of Muffler, check the parts number of Muffler parts.





PAINTING

Repair of Worn-off Plating:

Use chrome silver to repair worn-off plating. In so doing, a thin brush with a long is preferred.



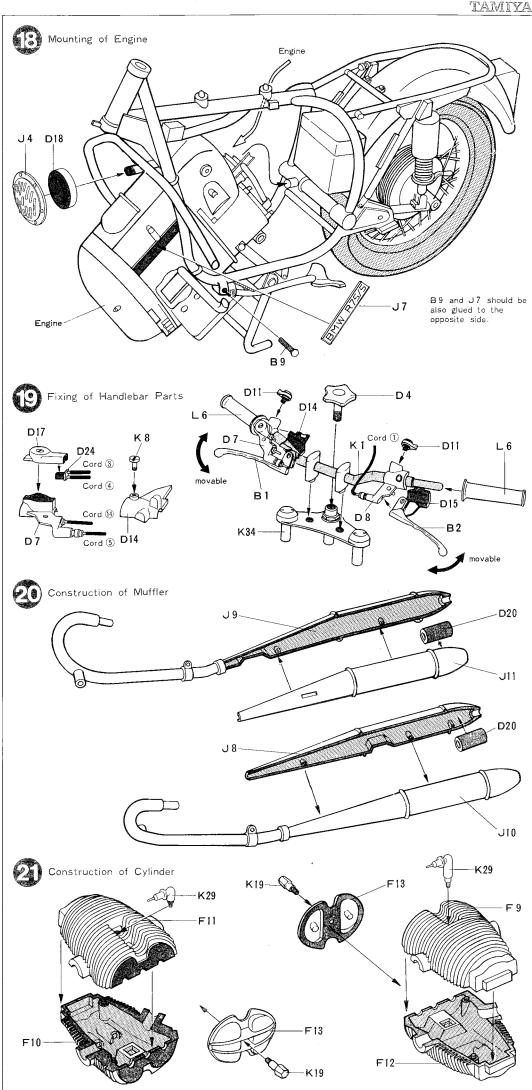
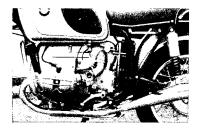
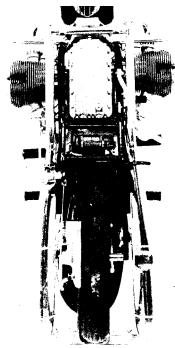
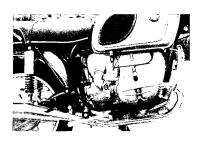


Fig. 22 Installation of Left Side Parts
First fix Cylinder with Push-lod onto
Engine. Muffler should be firstly fix onto.
Cylinder, and then fix it with step-bar onto
the body.



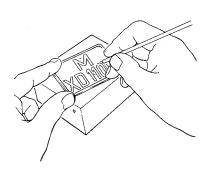






PAINTING

Painting of Number Plate To obtain better result, hold Number Plate on a rest and apply paint carefully.



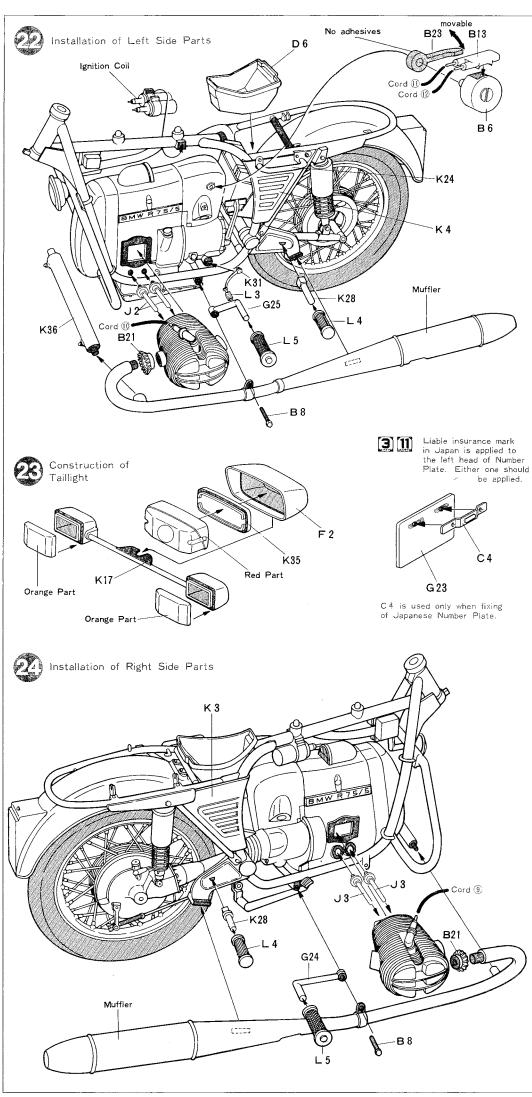
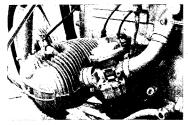


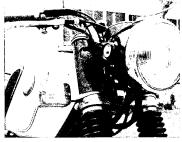
Fig. 25 Fixing of Carburettor Each right and left Carburettor should be fixed correctly. The left side part of Insulator is a little longer than right side. Fix them with care.





(Wiring and Fixing of Cords)



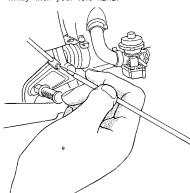




PAINTING

(Painting of Protector,

Apply Flat Black to four grooves on Protector. In so doing, hold your right hand firmly with your left hand.



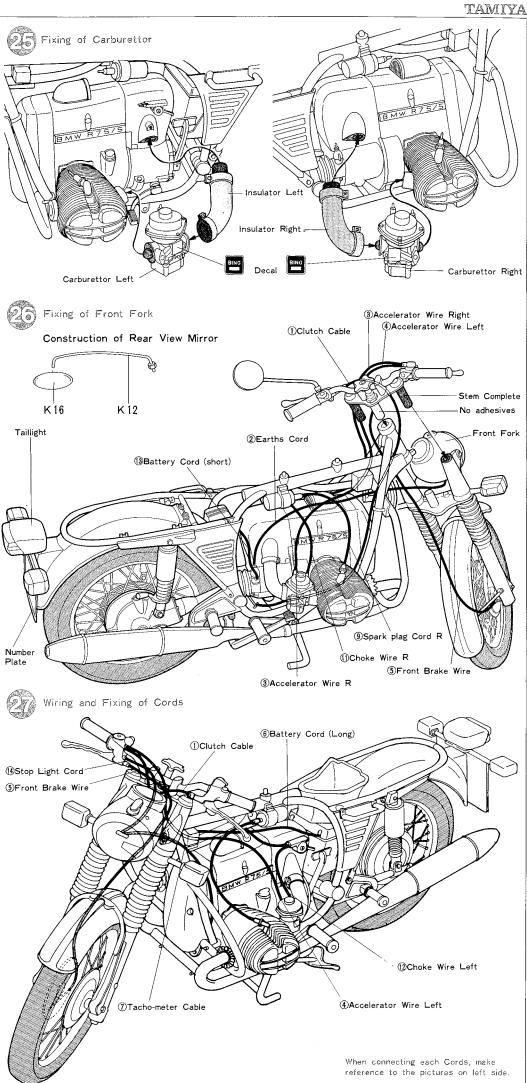
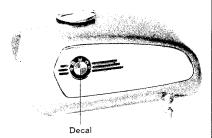


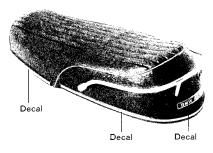
Fig. 28 (Construction of Fuel Tank)
First Construct A4, A5 and A1, and then

First Construct A4, A5 and A1, and then fix another parts. Strip the plate from the adhered portion of plated Parts, and then glue Parts.



(Construction of Seat)

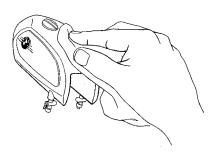
First apply Decals. Assist grips K 9, K10 and K11 are breakable Parts. Take enough time in order to dry up the adhesive.

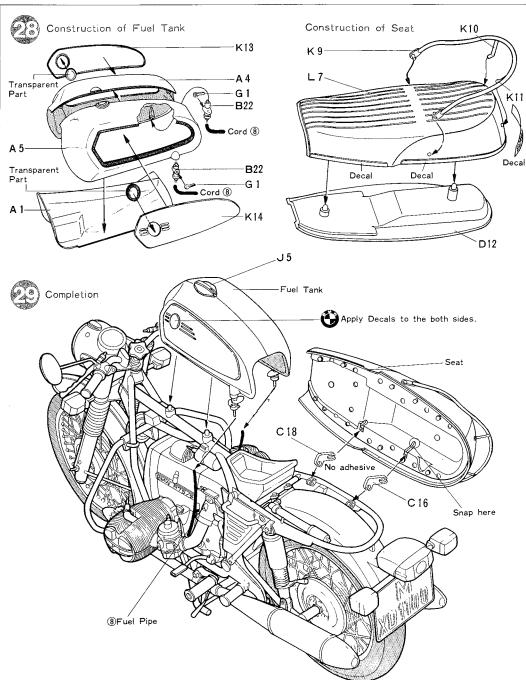


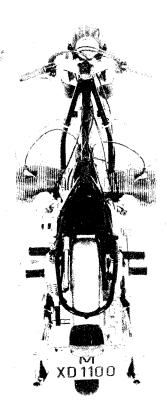
PAINTING

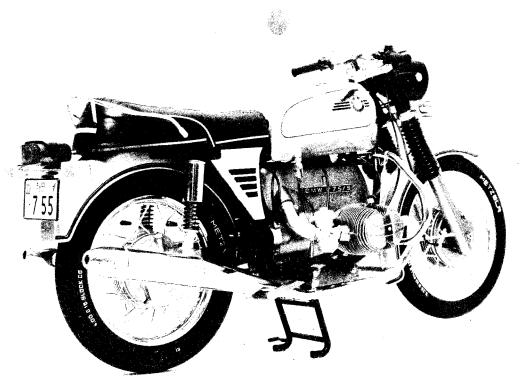
(Finish of the Whole)

After decals have been glued and dried up, apply wax onto the whole to polish. In so doing, use a soft cloth with a little bit of wax.











Painting:

Painting is done not to change the colour of each parts. It is done so that shape and function of a particular parts will be made all the more clear.

Six colours in all are to be used to increase a reality of the model. Name of each colour will be found in right side of this page.

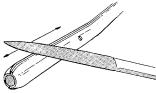
Before Painting:

Parts:

Before painting, sweep dust and greasy fat of hand left over off the surface of each parts with a soft cloth. If you want a full-proof clearing, further wash the surface with neutral cleanser. Those places which have been smeared with overflown adhesives could not be concealed by painting. So, get the adhesives off either with a cutter-knife, or by a fine sandpaper.

Irregular parting-line (place of joint between parts, or metals), too, should be corrected by filing.

Key to good painting of parts is to paint them after they have been assembled in their places. Parts of a same colour should be painted together as far as possible after they have been glued and their uneven jointed places, made fully even.



Painting utensil:

Get a brush, a dissolving dish and a waste ready. For a painting brush, use one for design work. Use two kinds of brushes: A flat one and a thin one. And both should be of soft hairs and with long spikes.

For a dissolving dish, use either a china dish or a transparent prepackage in which the model parts has been contained. Or again, a palette bought at a colourman will do. After painting, remove paints off brushes with lacquer thinner and then wash them with water. Keep the cleansed brushes in good state for future use.

Paints and Solvents

There two kinds of paints for the plastics — the alcohol-induced ones and the enamel paints. For the former type, methyl-alcohol and for the latter, turpentine respectively can be used in place of thinner.

Colours of Paints to be used



《Gloss Black》 Applied to Frame, Headlight and Rear Fork.



(Flat Black) Applied to the parts on Handle Bar.



Chrome Silver
Applied to metal parts like bolts and use for repair of plating parts.



《Metalic Grey》 Applied to Engine.



(Lemon Yellow)
Applied to a cap of Battery.

《Body Colour》

As Body Colour of BMW R75/5 three kinds of colour are prepared. They are Blue, Silver and Golden, which are fashionable candy colours. It is pleasant that you paint it as you like.

(Explanation of Decals)



① Emblem of BMW Company.



②Decals of speed meter and tacho-meter. Cut off the excess transparent portion around the decal before applying.



③Liable insurance mark in Japan.



4Mark which is applied to Carburettors.

BMW R75/5 5 Emblem of



67Marks of the side of Battery Case.

BMW R75/5.



Applying Decals

Where to apply decals are indicated in the two-view plan below. However, each precise spot to be applied with a decal will be found in each figure for construction. See it for precise work

 $\widehat{\mathbb{D}}A$ decal to be applied should be cut off beforehand.

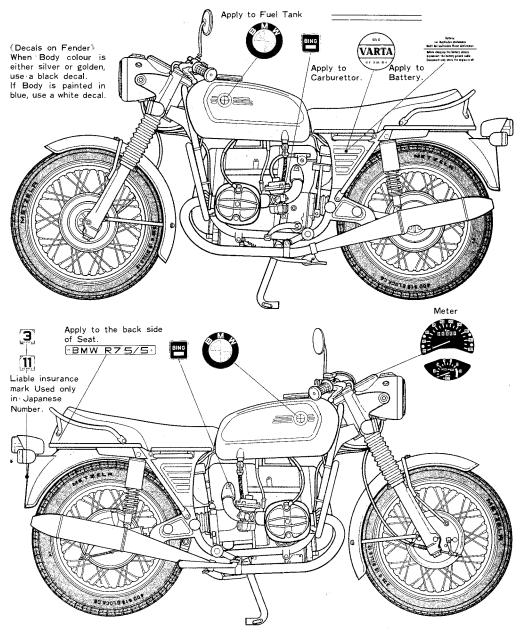
②Dip it in water. When the ground paper it is on arches, get the whole out of water to place on a cloth such as a towel.

③ A minute or two later, hold edge of the ground paper to slide the decal onto the model from the ground paper.

(4) Then, get a little of water on your finger to wet the decal so that the latter will be moved more easily onto the right spot.

⑤ Press the decal down with a soft cloth such as a towel to force air bubbles out of underside of the decal. Continue the work until the excess water, too, will be fully absorbed.

When the surface to be applied with a decal is uneven or curved, press the decal down with a steamed towel so that the warmed, wet decal will fit the surface well. Cut off the excess transparent portion around a decal before applying. When so done, you can expect a sharp finish with the decal precisely in its specified place.





A PARTS

- Fuel Tank Under side

- 2. Rear Fender
 3. Front Fender
 4. Fuel Tank Right 5. Fuel Tank Left



- Clutch Lever
- 2. Brake Lever 3 . Oil Level Gauge
- 4. Rear Shock Absorber A
- Carburettor A
- 6. Choke Lever A 7. Final Drive Gear oil Cap
- 8 Engine Stopper A
- 9. Engine Stopper B
- 10. Side Stand
- Rear Shock Absorber Control Lever
 Rear Shock Absorber B
- 13. Choke Lever B
- Stem Complete
 Carburettor B
- 16. Rear Shock Absorber Stopper A 17. Front Brake Arm 18. Winker Relay

- Front Brake Stopper Arm
 Carburettor C
- 21. Exhaust Pipe
- 22. Fuel Cock A 23. Choke Lever C
- 24. Carburettor D
- 25. Carburettor E
- 26. Carburettor F 27. Carburettor G

PARTS

- Rear Fork Part B Ignition Coil A Ignition Coil B Front Fork Stopper

- Meter Case Tool Case
- 6. 7. Brake Lever Part A

- 8. Clutch Lever Part A
 9. Battery Fitting Support Left
 10. Battery Fitting Support Right
 11. Starter Switch
- 12. Seat Under side 13. Main Stand C
- 14. Brake Lever Part B 15. Clutch Lever Part B
- 16. Air Intake A
- 17. Throttle Cable Joint A 18. Horn A
- 19. Battery Top A 20. Muffler Part
- 21. Main Stand D
- 22. Main Stand E
- 23. Front Shock Absorber Stopper
- 24. Throttle Cable Joint B 25. Unnecessary
- 26. Brake Arm Stopper
- Air Intake B
- 28. Rear Shock Absorber Stopper B Left 29. Rear Shock Absorber Stopper B Right



- 1. Front Fork Cover
- 2. Taillight Bracket
 3. Front Fork Cover B Right
 4. Front Fork Cover B Left

- 5. Battery Case 6. Battery Top B 7. Headlight Case Right 8. Headlight Case Left



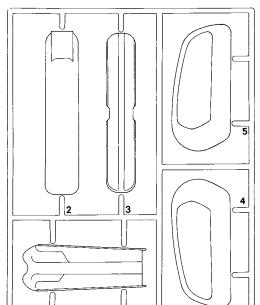
PARTS

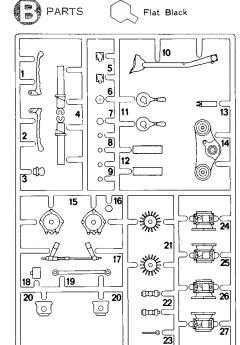
- 1. Crank Case A
- Crank Case B
- 3. 4. Crank Case C Crank Case D
- Crank Case E
- Clutch Arm Stopper Clutch Arm
- 6. 7.

- 8. Kick Starter Arm
 9. Cylinder Right Upper
 10. Cylinder Left Lower
 11. Cylinder Left Upper
- Cylinder Right Lower
- Locker Cover
 Crank Case F
- 15. Crank Case G 16. Crank Case H
- 17. Crank Case J
- 18. Oil Sump
- 19. Kick Starter Part A 20. Kick Starter Part B

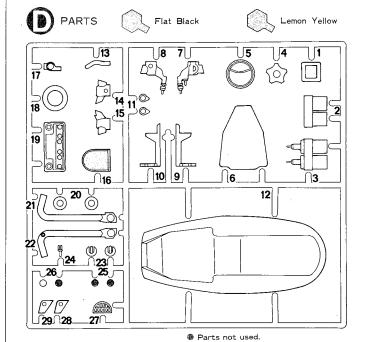


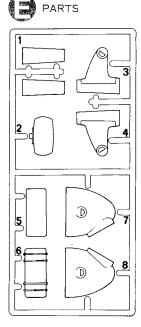






Flat Black



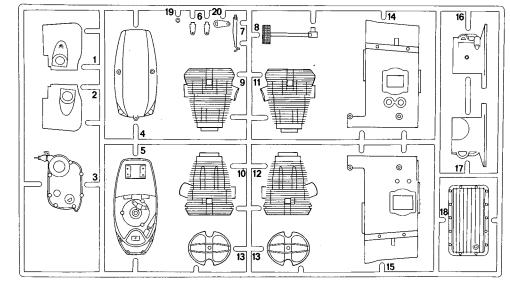




PARTS



Metalic Grey



PARTS

- Fuel Cock B Regulator Air Pump A

- 4. Air Pump B
 5. Battery Terminal
 6. Brake Drum A
 7. Brake Drum B
 8. Brake Crank Arm

- 8. Brake Crank Arm
 9. Final Drive Unite
 10. Front Fork Bottom Case Left A
 11. Front Fork Bottom Case Right A
 12. Front Fork Bottom Case Right B
 13. Front Fork Bottom Case Left B
 14. Front Brake Panel
 15. Rear Brake Arm A
 16. Rear Brake Arm B
 17. Brake Pedal A
 18. Shock Absorber Rod
 19. Fuel Hose Joint

- 19. Fuel Hose Join 20. Brake Drum C Fuel Hose Joint
- 21. Air Pump C 22. Brake Pedal B
- 23. Number Plate (ii 24. Step Arm Right 25. Step Arm Left Number Plate (in Japan)
- 25. Step Arm Lett
 26. Number Plate (in West Germany)
 27. Insulater Left A
 28. Insulater Right A
 29. Insulater Left B
- 30. Insulater Right B



PARTS

- 1. Headlight Stopper 2. Push Rod Left 3. Push Rod Right 4. Horn B
- Horn B Fuel Filler Cap
- Meter Ring
- Emblem Muffler Right A
- 9. Muffler Left A 10. Muffler Right B 11. Muffler Left B



PARTS

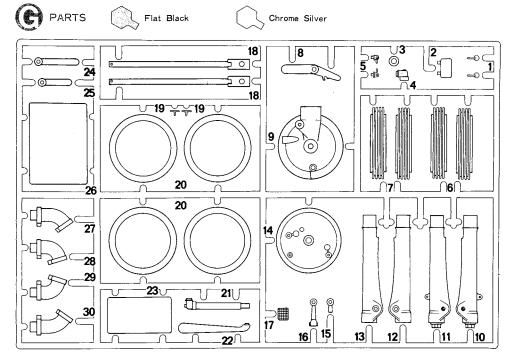
- Handle Pipe
 Front Fender Stay
- Side Cover Right Side Cover Left
- Headlight Sealed Beam Rear Shock Absorber C Winker Indicator Lamp

- 7. Winker Indicator Lamp
 8. Accelerator Lever Control Bolt
 9. Assist Grip A
 10. Assist Grip B
 11. Assist Grip C

- 12. Rearview Mirror Stay 13. Fuel Tank Side Cover Right 14. Fuel Tank Side Cover Left
- 15. Front Fender Stay B16. Rearview Mirror
- 17. Rear Winker Base
- 18. Bumper
- 19. Locker Cover Fitting Bolt
- 20. Bumper Stopper21. Throttle Lever Right
- 22. Throttle Lever Left 23. Choke Lever D
- 24. Side Grip 25. Rear Wheel Part
- 26. Front Wheel Part 27. Rear Brake Rod
- 28. Rear Step

- Kear Step
 Spark Plug
 Switch
 Change Pedal
 Front Winker Base Left
 Front Winker Base Right
 Fork Top Bridge
 Tailight Base

- Taillight Base
- 36. Exhaust Part
- 38. Rear Shock Absorber

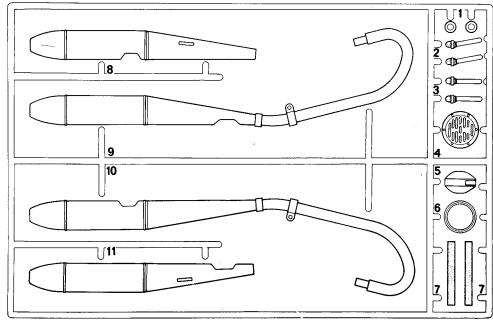




PARTS



Flat Black



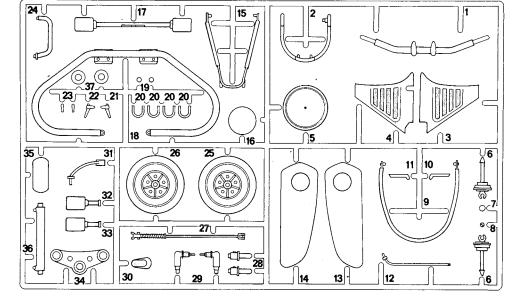


PARTS





When Body colour is either Silver or Golden, paint Flat Black. If Body is painted in Blue, paint Blue.





- Tacho-meter Cable Joint
 Rear Fork Cover
 Change Pedal Rubber
- Rear Step Rubber
 Step Rubber
- Accelerator Grip Rubber Seat



- 1. Front Wheel A 2. Front Wheel B
- 3. Rear Wheel A
- 4. Rear Wheel B



(PARTS

- Rear Fork Part A

- 1. Rear Fork Part A
 2. Frame B
 3. Frame C
 4. Number Plate Bracket
 5. Main Stand A
 6. Stem Complete Part
 7. Rear Fork Lower
- 5. Main Stand A
 6. Stem Complete Part
 7. Rear Fork Lower
 8. Rear Fork Upper
 9. Frame D
 10. Frame A Left
 11. Frame A Right
 12. Wrench

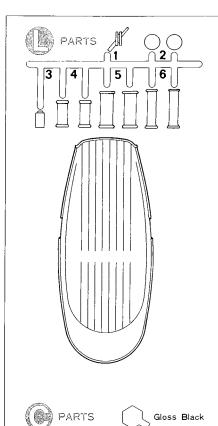
- 13. Frame Part A 14. Frame Part B

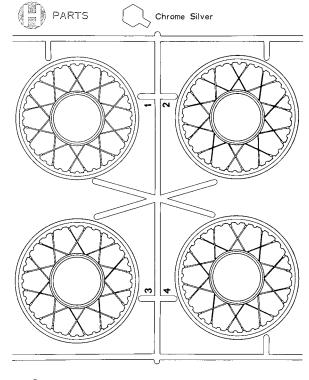
- 15. Main Stand B16. Seat Hinge A17. Seat Hinge B18. Seat Hinge C

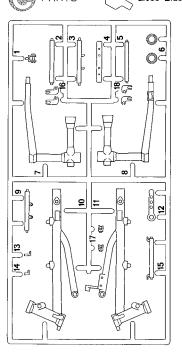


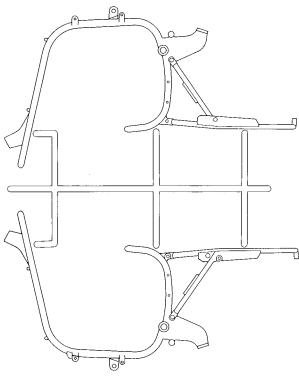
- 1. Brass Pipe (6 $\phi \times 39.5$ mm) 2. Brass Pipe (5.3 $\phi \times 46$ mm) 3. Brass Pipe (3 $\phi \times 25$ mm) 4. Brass Pipe (3 $\phi \times 41$ mm) 5. Brass Pipe (11.5 $\times 20$ mm) 6. Damper Boots 7. Universal Boots
- Damper Boots
 Universal Boots
 Spring (for Rear Shock Absorber)
 Spring (for Front Shock Absorber)
 Spring (for Side Stand)
 Spring (for Main Stand)
 Zom Vis (form below neck)

- 12. 2mm Vis (bmm below neck)
 13. 2mm Nut
 14. Front Shaft $(2 \not \phi \times 41 \text{mm})$ 15. Rear Shaft $(2 \not \phi \times 48 \text{mm})$ 16. Rear Fork Shaft $(2 \not \phi \times 52 \text{mm})$

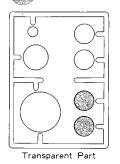




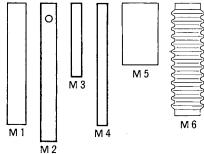


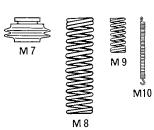


Gloss Black



PARTS





Orange Part Taillight

20000 M14 0 M13 **⊒‱ M**15 ______M16



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M11 M12

Parts not used.