

Das Truppenfahrrad



The German Army Bicycle 1939 – 1945

by

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“Das Truppenfahrrad” – The German Army Bicycle 1939-1945

Organisational History

Contrary to popular belief the German Army was not fully motorised at the outbreak of war. The Treaty of Versailles had severely limited the Army's resources, especially within motorisation. A large part of the Infantry were



required to move on foot and therefore it seemed logical to utilise non-motorised forms of transport such as horses and bicycles. These forms of transport continued throughout the war and towards the end the reduced manufacture of motorised vehicles and lack of fuel resources forced OKW (*Oberkommando der Wehrmacht – The High Command of the Armed Forces*) to utilise more non-motorised forms of transport. In 1943 the production of bicycles was estimated at 1.2 million. Although the exact number is not known, the largest part of this production was initiated by military demands.

All units of Infantry and even motorised divisions included bicycles in their standard equipment. The reorganisation of the army in the mid 1930's stated that the first battalion of each infantry regiment should be equipped with bicycles and throughout the war, in the majority of infantry regiments, this was the case. Each regiment had a reconnaissance section, which were either on horseback or bicycles (*Regiment Radfahrer / Reiterzug*) or sometimes a combination of the two. The HQ staff of infantry regiments were issued five bicycles, as were pioneer battalions. Later in the war all units had bicycles issued, especially sections whose role was as despatch riders.

The cavalry, at the start of the war, had fifteen regiments. Each of these regiments included a small section of motorised vehicles and a battalion of bicycles. In 1941 the attack in the east against the Soviet Republic showed the unsuitability of combining horse mounted troops and bicycle units. During the muddy period in autumn of that year the horses retained good mobility whilst the bicycle became a burden. Within the cavalry the bicycle battalion was eventually phased out by 1943, however the cavalry itself became practically non-existent having been reduced to three regiments by this time.

In 1945, during the closing days of the war, the allied offensive on Berlin and other major cities had placed a stranglehold on equipment and supplies, which forced the defenders to utilise any form of transport available to them. Bicycles were used in great numbers by the infantry, Volksturm (*civilian volunteers*) and the Hitler Youth to manoeuvre through the streets in a vain attempt to stay the onslaught.

Production History

Prior to the outbreak of the war the manufacture of bicycles for the military was undertaken by civilian firms, which were also manufacturing bicycles for the general public. These firms manufactured the bicycles according to their



own design and little or no adaptations were made for a singular military use. These firms included: Achilles-Werke, Adler-Werke, Assman-Werke, Baronia, Brennabor-Werke, Eska-Werke, Elsterwerdaer, Excelsior, Express-Werke, Fahrrad-Werke-Bismark, Falter_fahrrad-Werke, FKZ-Werke, Frike, Haenel, Heidemann, Hercules-Werke, Junior-Werke, Kuxmann, Meister-Fahrradwerke, MIFA, Opel-Werke,

Pantherwerke, Patricia W.K.C., Phänomen-Werke, Rabeneick, Solinger Fahrradwerke, Franz H. Schaaf, Stadion, Stricker, Sudbrak HuW, Tornado-Werke, Torpedo-Werke, Tripol, Triumph-Werke, Velamos-Werke and Wanderer.

This resulted in a wide variety of styles of bicycles but with the start of the war came a rationalisation of production. This reduced the number of outside contractors and produced a standard regulation bicycle which was assembled by a number of the above companies according to demand.

Despite the introduction of a standard bicycle many variants existed. Pre-war examples were still in use pending replacement, civil units still purchased direct from companies and captured bicycles were utilised. So even by 1944 the military bicycle was therefore a vast mixture of styles. The majority were by now the standard regulation issue but there was still a hotchpotch of



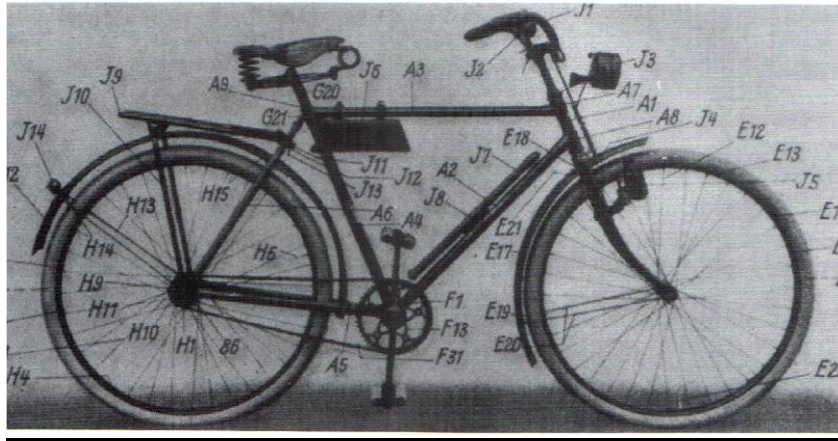
variants and improvisations. There even existed a parachutist model (*Fallschirmjäger Fahrrader*). This was a standard regulation bicycle, which was equipped with quick release hinges on the crossbar and front down tube thus enabling it to fold in half and fit into the drop canisters. A surviving example can be seen in the "History on Wheels Museum" -

(www.historyonwheels.co.uk). This cycle also has quick release wing nuts on the front and rear wheels enabling it to be broken down even further into a more compact size.

There also existed a *Schleppeine für Radfahrer*. This was in essence a towing cable with five "V" shaped cable attachments. This enabled vehicles to tow up to ten cyclists.

The Truppenfahrrad was in principle to be maintained by the armourer (*Waffenmeister*) but for the most part garrisoned units would utilise the services of local repair shops. Normal maintenance and cleaning were the responsibility of the cyclist. Bicycles were differentiated by their usage and allocation (*Gebrauchsfahrrader / Fahrrader des Sollbestandes*).

The Standard Regulation Truppenfahrrad



Military bicycles and indeed all bicycles of that time were basic in their construction. They had two wheels, a frame, handlebars, foot powered pedals linked by a chain to the rear wheel and a braking system. The standard regulation bicycle used by the army was no different but had a few adaptations and standardisation of components such as the braking system. On the standard regulation bicycle the frame was constructed of thinner tubing, which allowed greater space to attach equipment. The handlebars (incorporating the front brake lever) were also easily removed by means of a central release lever. This prevented theft and also allowed the cycles to be stored more compactly when loaded onto trucks or wagons.



When the bicycle left the factory it was painted in satin black. Everything was black except the chrome or nickel-plated parts. Throughout its service the bicycle was often repainted including the chrome and nickel-plated parts (to prevent glinting). Black was the preferred colour but some evidence shows they were also painted in appropriate camouflage. Bicycles in their original factory painted black would have been rare. The bicycles were also stamped with the manufacturers details, serial number and date of production. Parts provided by other specialist companies such as the braking system would also have their own stamp markings. Many parts would also bear the

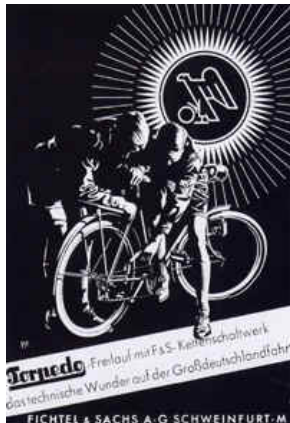
stamp marking D.R.P. (*Deutsches Reich Patent*).

The chain was simple and did not have a chain guard fitted. This was probably for ease of maintenance, reduction in weight and cost. It is also likely that the omission of this item was to prevent debris clogging the chain.

The saddle was supported by simple coil springs and was made of leather, elasticated cloth, rubber or felt (covered with an oilskin cloth). A common makers stamp is F.A.G. The bicycle was equipped with full mudguards front and rear, which were semi-spherical (cross sectional view) and had rolled

edges for strength. Later these were constructed of a thinner gauge of metal and had pressed reinforcing ridges each side. Between the rear mudguard and the down post was a suitably shaped triangular tool pouch. This was normally made of leather or compressed card and fixed to the bicycle by means of three straps.

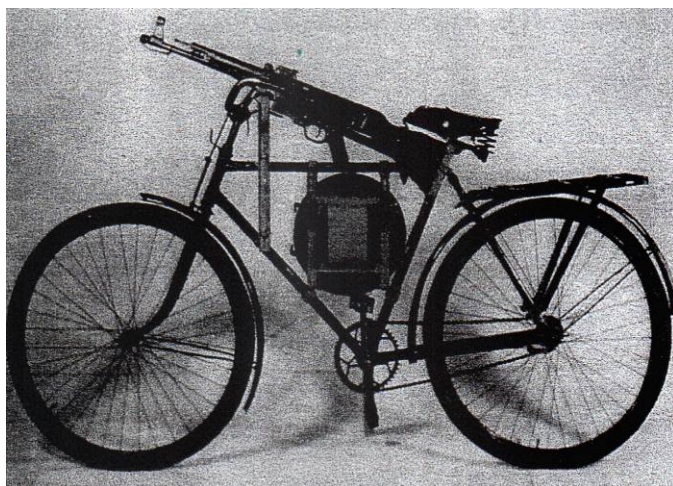
The Truppenfahrrad was required to comply with the Road Traffic Regulations of 1937 (*Reichstrassen-Verkehrsordnung*). This required the bicycle to have a front brake, a bell, a light on the front, reflectors in the pedals and a red reflector to the rear.



The bicycle had a solid bar operated front brake with a large rubber pad which acted directly on the top of the front tyre. This was fairly inefficient and was generally used only at low speeds and when walking with the cycle. The tyres were rubber and pneumatic. The main brake was in the rear wheel hub and operated by pedalling backwards. This was not a fixed wheel and allowed “free-wheeling” to take place. This system was manufactured by Torpedo, Komet or Belamos.

A light was only placed on the front and was generally a simple lamp, however the troops were often issued with black out covers so the military purchased some purpose designed lamps. These had no glass lens but had slatted metal covers designed to divert the light downwards. There are some surviving examples made by FaKo. The lamps were occasionally battery powered but more commonly powered by a dynamo acting on the front wheel rim. Manufacturers of these dynamos include, Bosch, Riemann, WIF, Berko, Balaco, Nordlicht, Melas, Daimon and Styria.

The pedals were metal with either rubber or wooden blocks. As per regulations they were equipped with red or amber reflectors but these were often removed to aid with blackout procedures. After 1943 pedals were made entirely of metal with no reflectors. These were harder wearing and cheaper to produce and were manufactured by Wippermann, Weco or Union-Werke. They were either bare metal, chromed or painted black.



In the standardisation of the bicycles there was a standardisation of the equipment carried. There were brackets designed to carry a variety of equipment such as the K98 rifle, The MG 34/42, MG34/42 tripod, The Panzerbusche (*anti-tank rifle*), the G43 rifle, Mortars, Tellermines etc. These attachments are rarely seen in photographs.

As per regulations the bicycle was equipped with a rear reflector but photographs show that many were removed (or lost!). On some photographs it can be seen that a small section of the rear mudguard is painted white as some form of rear reflector.

There was also an attachment that fixed onto the handlebars in order to take a rolled overcoat or blanket but this was withdrawn as it made the bicycle too heavy resulting in the bicycle toppling over when at rest and unattended.



The two most common attachments, however, which are prevalent in photographs, are the carrier and the ammunition box. The carrier was placed at the rear attached to the rear downpost and at the base of the rear wheel support tubes. It was large enough to take three MG ammunition boxes but was frequently used to carry the cyclist's pack and accoutrements. The items were secured with four straps, three across the rack and

one from front to rear. The ammunition box was attached to the crossbar by two brackets and had one opening side with an internal strap. This box was large enough to take one MG ammunition box. The box could also take three stick grenades with detonators. With the latter the box was marked "*Mitt Einsatz*". Some surviving examples of these boxes are lined with carpet felt or hessian to deaden the noise of rattling boxes.

The bicycle was also equipped with a hand pump. This was a simple wooden handled push fit type and seemed to have been manufactured in two sizes, either 400 mm or 430 mm. This was attached by two spring clips to one of the frames. The toolkit would include a small number of appropriate tools, tyre patches, an oil can, and occasionally a lamp cover for blackout periods. It may be likely that spare pedals and a chain may also have been carried when and where space allowed.



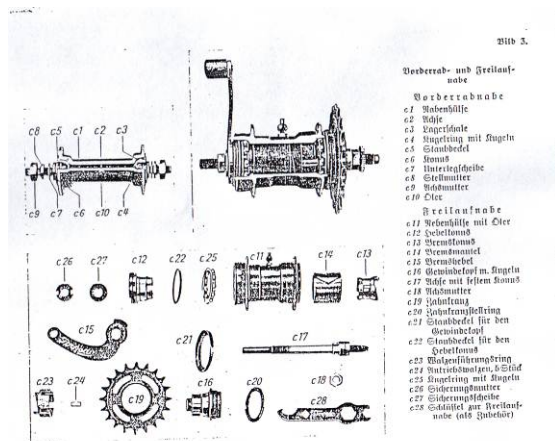
In some late war photographs it can be seen that *Panzerfausts* (Disposable anti-tank weapons) are being carried on the front of the bicycle. These are situated in front of the handlebars and down to the side of the front wheel. There is no literature to show any brackets designed for the bicycle to incorporate this and it is likely that either brackets have been improvised or that the *Panzerfausts* have merely been tied on.

A vertical bracket fixed to the crossbar can be seen in some photographs. This was to support the K98 rifle with a butt rest attachment attached to the frame just under the seat. In the majority of photographs personal weapons had a tendency to be carried slung over the cyclist's back or chest.

On some photographs it can be seen that there is a white or yellow circular motif painted on the rear mudguard. This is divided into four with the upper and lower sections coloured in white. There is usually a number painted above the motif. The number is believed to be the regiment and the motif as an indication that it is a cycle unit. It may also act as a replacement reflector. These are quite rough in appearance and appear to have been hand painted rather than officially



stencilled. There is some evidence that the owner may have painted "*Eigentum der Wehrmacht*" on the crossbar, which translated means "*Property of the Military*". There is little evidence to suggest that this was a common practice. As with all military items the bicycle came with an operating manual. The manual was comprehensive and showed each component part split down to its nuts and bolts. It included maintenance procedures and the



rear of the manual illustrated each type of official attachments required to attach a variety of weapons depending on the use of the cycle.

Sources

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Weapons and equipment of the German Cavalry 1939-1945 by Klaus Richer
Das Truppenfahrrad – The official Wehrmacht handbook
Panzerfaust by Wolfgang Fleischer
Hitler Youth , The Hitlerjugend in War and Peace 1933-1945 by Brenda Lewis
German Infantryman at War 1939-1945 by George Forty
The German Home Front 1939-45 by Terry Charman
The WW2 US Military Folding Cycle by Tony L. Oliver
 (Proprietor of The History on Wheels Museum. "www.historyonwheels.co.uk")

Photos of Interest



Bicycle Battalion of the 1st Cavalry Regiment in France 1940. Note the K98 rifles carried inverted on the crossbar



Bicycle Battalion of the 13th Cavalry Regiment battling through the mud – possibly Russia. Note the blanket rolls carried on the handlebars, a practice which ceased due to instability.



Bicycle Battalion of the 18th Cavalry Regiment on parade



At rest and covering bicycles with zeltbahns (Poncho/tent quarter). Note method of stacking the bicycles in pairs. - Unknown location



At rest in camp. Note paired stacking of bicycles.



A Bicycle Battalion in camp. Note neat paired stacking of bicycles.



BDM (*Bund Deutscher Mädel* – a female version of the Hitler youth) with civilian issue bicycles.



Belgium 1940 – The bicycle at the rear appears non standard and certainly has a non standard rack.



A Column on the Eastern Front. Bicycles have circular motif and regimental number painted on the rear.



Crossing a bridge - Belgium 1940



Hitler Youth in Frankfurt an der Oder – 1945. Note *Panzerfausts* (a disposable anti-tank weapon) attached to front.



Unknown unit - late war. Note *Panzerfausts* (a disposable anti-tank weapon) attached to the front of the bicycles



At rest, France 1940



At rest – France 1940. Note the paired stacking of bicycles. These are non-standard bicycles and the large wheels and tyres are typical of cycles made by *Wanderer*.



Members of the Hitler Youth with what appears to be a standard regulation bicycle. Note MG34 attachment.



In column, possibly early war – unknown area.



Unknown area though the sign indicates a French speaking area such as France or Belgium



This appears to be an officer on a bicycle. Note MP40 slung onto the carrier designed for the K98 rifle



Musicians on what appear to be non regulation bicycles



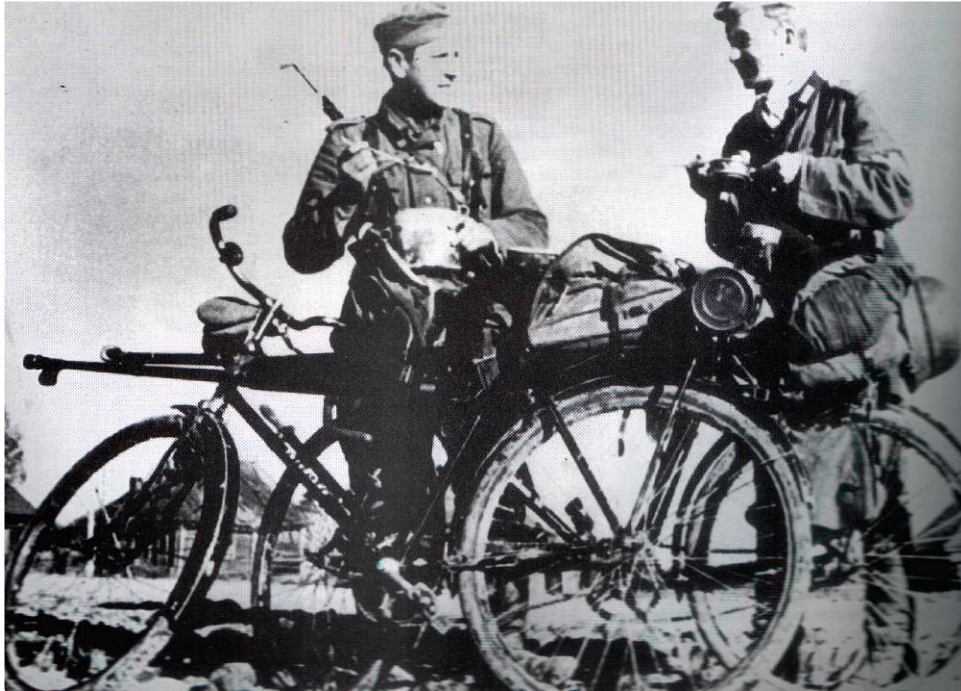
Bicycle unit on the Rhine, Pannerdin, Holland during the Ardennes offensive 1944. Note the rear mudguards painted white.



This photo shows a group of cyclists being towed behind a vehicle. The towing cable (*Schleppeine für Radfahrer*) is in the form of a "V" and was designed to tow up to ten cyclists.



Standard Regulation Bicycles issued to Civil defence workers in Berlin 1943/44. These units were formed to assist with rescue and repair work following allied bombings of the city.



May 1940 – Note the Panzerbüchse (Anti-tank rifle) carried on the bicycle.



Unknown area possibly early war. Bicycles appear Standard Regulation issue. Note box attached to crossbar on cycle to the left of the picture



Illustration from the Army manual of how to button a zeltbahn when on a bicycle.



Moving through the woods. Standard Regulation Cycles showing regulation Ammunition box and racks fully kitted. Note rifle slung over chest and lamps are military issue with no glass lens just a slatted section of metal to disperse light for blackout reasons.



No not a form of cycling attack procedures, just a pre-war propaganda photo.



6th March 1945. 6th SS Panzer Army mount a counter offensive against the Soviet 27th Army at Lake Balaton, Hungary.