

BOLT ACTION POLISH ARMY SUPPLEMENT (UNOFFICIAL)

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Though the published army list for the Polish army in the book *Armies of France and the Allies* provides a good base for playing the early war Polish army, it does not capture the breadth of equipment and capabilities actually available to the Polish forces at the time of the invasion. Some equipment, and even entire units, are omitted or lumped into a more general unit entry. As it exists today, there are several units of the Polish army that simply cannot be represented on the tabletop even if models were available. In addition, there are some models that exist for which there are no unit entries. An example is the Polish Black Brigade Motorcycle/sidecar which can be purchased from Warlord games but has no unit entry allowing it to be used on the table.

In this supplement, I am attempting to fill those gaps by adding new units, modifying existing entries and correcting some mistakes in the original book that have not been dealt with in an FAQ/Errata. I hope this will be helpful and educational for those interested in playing the Polish army of 1939.

Research is still being done, especially in relation to the prevalence of rifle grenades and the equipment of the infantry and cavalry pioneer units. Further, a selection of fortifications will be added to represent those in use in the defense of Poland, especially in the area of Wizna.

New Units

The following units are completely new units based on actual units and weapons fielded by the Polish army. They are created based on Tables of Organization & Equipment as well as technical specs for the weapons. Sources are presented at the end of this document.

Obrony Narodowej (National Defense) Section

The Polish National Defense units were originally created in 1937 as a separate reserve of manpower to be mobilized as needed. In addition, the ON units would be cheaper to create and maintain because they did not have weapons heavier than the wz.30 machine gun and most of the weapons were available from stockpiles of WW 1 weapons. Organized into battalions, these would be assigned to various infantry divisions or to specially created brigades that would include regular infantry and KOP regiments.

However, as tensions with Germany rose, they were restructured and given regular infantry training. In addition, many more battalions were raised. Few of the regular soldiers had any prior military experience and many were unemployed prior to joining. However, the NCO's and officers were from the army reserve and almost always had some prior experience.

Due to the nature of the way in which they were created, there was some variation in the size of the individual rifle sections (11-15 men), the number of rifle sections in a platoon (2-3) and the number of rifle platoons in a company (2-3). To complicate matters, cyclist rifle platoons would have three sections of 18 men in addition to the platoon commander and his two assistants for a total platoon complement of 57. That made for a wide variety of unit sizes.

Cost	49pts (Inexperienced)
Composition	1 NCO and 6 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 11 additional soldiers at +7pts each (Inexperienced)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts• Unit may be mounted on Bicycles for +1 Point per model.• Unit may be given Molotov Cocktails for +2 pts per model and gain the Tank Hunter Special Rule
Special Rules	Tank Hunter Bicycles

Border Protection Corp (KOP)

Formed in 1924 to defend against raids from Russia and the Ukraine, all members must have had experience in the military in order to join. As a result, these units were elite formations. Their role was a mix of military and police and they participated in border defense, raids into Ukraine, reconnaissance, ambush and intelligence gathering. Additionally, officers who left the army would do a tour as officers within the KOP.

After the reorganization and expansion during 1937-39, more newly recruited soldiers were included though many individuals had combat experience by the start of the war. The units were reorganized and equipped like their regular infantry counterparts but their Border Protection mission remained. However, they were not as well equipped as regiments and sometimes had to rely on older rifles and civilian clothes with a red & white armband as their uniform. Officers would have their old uniforms still but the common soldier may not.

Some Regiments were created from reservists while others were simply reorganized and renamed. This resulted in a mix of unit quality but since even the new recruits had prior military experience, even the newly formed units could perform well. As a whole, the KOP served as a reserve for the regular army being deployed in support of regular divisions. They were not used as a pool of replacements but as additional infantry units for use in defending the lines. At the start of the German Invasion, many KOP units, like the 1st KOP, were considered elite and performed very well. Others performed on par with the normal infantry units.

Cost	70pts (Inexperienced), 100 pts (Regular), 130 pts (Veteran)
Composition	1 NCO and 9 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 9 additional soldiers at +7pts each (Inexperienced) or +10pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts• Unit may be mounted on Bicycles for +1 Point per model.
Special Rules	<ul style="list-style-type: none">• Green (if purchased as inexperienced)

Pioneer Section

The Pioneer sections in the Polish army were primarily responsible for the construction of barricades, fortifications and bridges. However, they were also equipped with explosives for use in demolition as required.

Cost	78 pts (Veteran), 60 pts (Regular)
Composition	1 NCO and 5 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 6 additional soldiers at +13pts each (Veteran) or +10pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts• Unit may be given a Satchel Charge +?? points
Special Rules	<ul style="list-style-type: none">• Satchel Charge

Flamethrower Team

Not many realize that the Polish Army had over 400 Flamethrowers in 1937. These were supposed to be the Pioneer platoons but it is not clear if other units were issued them as well. these included 110 WWI German flamethrowers, 167 Polish-made one-cylinder flame-throwers and 130 Polish-made two-cylinder flame-throwers. In fact, there were a total of 13 units issued with 8 flamethrowers each; six of the Zielinski type and two of the Sender type. These appear to have been used by the Warsaw Motorized Brigade and the Poznan Army group

Cost	65 pts (Veteran), 50 pts (Regular)
Composition	2 men
Weapons	1 Infantry flamethrower
Special Rules	<ul style="list-style-type: none"> • Flamethrower • Team weapon

Motorcycle MMG

The Polish army made extensive use of motorcycles in their motorized brigades. Motorcycle MMG was a Falcon Motorcycle with the Sidecar frame but the actual sidecar replaced by a seat and special mount for the wz.30 MMG. These vehicles provided MMG support for the reconnaissance squadrons of the armoured brigades.



Cost	32pts (Inexperienced), 40pts (Regular), 48pts (Veteran)
Weapons	1 forward-facing MMG covering the front arc
Damage Value	6+ (Soft Skinned)
Options	<ul style="list-style-type: none"> • May give the MMG the Flak rule +5 pts
Special Rules	<ul style="list-style-type: none"> • Recce • Turn on the spot: These motorbikes are so small and agile that they can turn on the spot enabling them to execute a full speed Run 'reverse', finishing the move facing in the direction of travel.

Motorcycle Recon Section

Motorcycles were used in the reconnaissance platoons of both the Warsaw Armoured Brigade and the 10th Motorized Cavalry Brigade. These units rode Sokół (Falcon) 1000 M111 Motorcycles equipped with the Sidecars so a single section required only 2 or three motorbikes.

There were six platoons of motorcyclists in the Polish Army:

- in the 10th Cavalry Brigade, two platoons reporting directly to regiment commanders and one platoon in a reconnaissance squadron
- in the Warsaw Armored-Motorized Brigade, two platoons in the regiment's reconnaissance companies and one in the reconnaissance division



These platoons had six sections of 8 men each.

Cost	60 pts (Regular), 78 pts (Veteran)
Composition	1 NCO and 5 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 2 additional soldiers at +13pts each (Veteran) or +10pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts
Special Rules	<ul style="list-style-type: none">• Motorbike

TKD Self Propelled Gun

From the start of the tankette development program in Poland, the intent was to develop a self-propelled gun based on the same tankette chassis. The original British Carden-Loyd tankette design, from which almost all tankette designs of other countries were derived, was offered in a self-propelled variant and the Polish were keen to develop their own for use by cavalry brigades providing support and anti-tank capabilities.

In 1932, the Armoured Weapons Construction Bureau of the Army Engineer Research Institute designed the first self-propelled tanked and designated it "TKD". Being the only suitable gun available, at the time, for the TKD, the 47mm wz.25 Pocisk infantry gun was adopted. The wz.25 Pocisk was intended to be an infantry gun of Polish manufacture to reduce Poland's reliance on weapon imports but with only a handful produced, the Army cancelled the infantry gun program. The TKD was the only use of this 47mm gun in combat.

The four experimental TKD vehicles were converted from TK-3's using mild iron instead of armour steel. In 1933, they participated in military exercises attached to a cavalry brigade and proved that they did, in fact, meet tactical the requirements but the weapon was underpowered as an anti-tank weapon. For this reason, the TKD design was abandoned, to be replaced by the TKS-D.

In 1938, at least two of the TKD's were assigned to the 10th Cavalry Brigade, the famous "Black Brigade", and joined the two TKS-D's that were part of its anti-tank platoon. There is indication that the TKD's, unable to join up with the rest of their brigade when the Germans invaded Poland, were attached to units that would eventually defend Warsaw. However, their fate is not recorded.



Cost	36 pts (Inexperienced), 45 pts (Regular)
Weapons	1 forward facing low velocity light anti-tank gun
Damage Value	6+ (Soft Skinned)
Special Rules	<ul style="list-style-type: none">• Open-Topped• Low Velocity Light Anti-Tank Gun: The light anti-tank gun has a penetration value of 3 instead of 4.

Tank destroyer TKS-D

The TKS-D is the first tank destroyer to see combat in WW2. It is also the smallest tank destroyer deployed by any nation. Based on the tactical success of the TKD in exercises in 1933, development of the Tankette into a self-propelled anti-tank gun continued. What would eventually become the TKS-D began life as an armoured tractor to carry the 37mm wz.36 Bofors anti-tank gun, the standard Polish anti-tank gun. The gun would be mounted on the tankette but the carriage would be towed behind. This would allow the gun to be fired even when loaded on the tankette if needed. Otherwise, the carriage would be set up normally and the gun transferred to the carriage for typical

use. The tactical success of the TKD concept changed the course of the TKS-D's development to permanently mount the anti-tank gun resulting in a dedicated tank destroyer.

The successful TKS tankette was the basis for the new design and in April 1937, two TKS-D's were ready for testing and exercises. The two differed slightly in the hull shape only as one had slightly higher, sloped sides. They were both assigned to the newly motorized 10th Cavalry Brigade and took part in exercises in 1938. Both saw combat during the German invasion of Poland with the Black Brigade and though they proved their worth, both would be destroyed in combat, One of vehicles was destroyed by artillery on 5 September in Skrzydlna village, the second on 9 September, returning with a patrol to Albigowa town, which had been already captured by Germans.



Cost	72 pts (Inexperienced), 90 pts (Regular)
Weapons	1 forward facing light anti-tank gun
Damage Value	7+ (Tankette)
Special Rules	<ul style="list-style-type: none"> • Open-Topped

HORSE-DRAWN LIMBER

In the 1930s, mechanization had begun in Poland, but due to the limited financial resources available to the newly reformed country, much of artillery was still being moved by horse-drawn limbers. This was especially true in the Cavalry units. The small Anti-tank guns required only two horses to pull but the light and medium howitzers required teams of 6 horses. Horse-drawn limbers are treated as wheeled vehicles, except as noted below.

Cost	8 pts (Inexperienced), 10 pts (Regular), 12pts (Veteran)
Weapons	None
Damage Value	3+ (Literally Soft Skinned)
Tow	Any Gun or Howitzer
Special Rules	<ul style="list-style-type: none"> • Slow (only when towing)

Krupp L2H 43 Field Car

The Krupp L2H 43 Field Car was purchased by Poland from Germany between the wars. Two of these were given to the Reconnaissance Squadron of the 10th Cavalry Brigade for evaluation. They remained in use throughout the invasion as the reconnaissance battalion commander's field car.



Cost	25pts (Inexperienced), 29pts (Regular), 33pts (Veteran)
Weapons	None
Damage Value	6+ (Soft Skinned)
Transport	7 Men

Unit Corrections/Additions

The following units are additional options for existing unit entries or they are entries created from existing unit entries to represent new units. Note that several of the entries below have a different minimum and maximum squad size. This is done to reflect the actual standard unit size so that players may play historically accurate unit sizes and still benefit from the “At Full Strength” rule where it makes sense.

Officers

Officers were issued a means of transport dependent on the size and type of unit they led. To reflect this, the following options are available to officer units:

- All Officers of Cavalry platoons may be mounted on horses for +5 points per model (as already included in a published FAQ/Errata)
- Junior Officers of Infantry Recon platoons may be given bicycles for +1 point per model.
- Senior Officers of Recon and Motorized Infantry Companies/Battalions may be given Motorcycle & Sidecar and gain the Motorcycle special rule.
- Junior Officers of Motorcycle Recon platoons may be given Motorcycle & Sidecar and gain the Motorcycle special rule.

Molotov Cocktails

Like several other early war armies, the Polish knew that tanks were vulnerable to flammable liquids and many infantry units made Molotov Cocktails when they had an opportunity.

The following Units from the Warlord Army Books may be given Molotov Cocktails at a cost of 2pts per model gaining the Tank Hunter Special Rule:

- Regular Infantry Section
- Inexperienced Infantry Section
- Cavalry Section
- 10th Motorized Cavalry Brigade Section

Machine Gun Team

The Polish wz.30 ckm (MMG) was sometimes configured with an AA mount. These were found in the command squadrons of both Armoured car and independent reconnaissance tank units. They would be an MMG on a pintle mount similar to the German LMG getting

the Pintle rule introduced in the Western Desert book. Though they may have been in tank or armoured car units, the MMG was not actually mounted on a vehicle.

- The MMG Team may be given the Flak rule for +10 pts

Bicycles

Due to a shortage of riding horses, many Recon platoons included sections mounted on bicycles instead. This occurred within Cavalry as well as infantry units. To represent this, the following options are added to the Cavalry and Regular Infantry Section unit entries.

- **Cavalry Bicycle Section:** (Use this if you choose not to use the Cavalry Scout Section entry presented later in this supplement.) This is the same as a Cavalry section (see page 77 of the Armies of France and the Allies book), but the section is bought mounted on bicycles for -1pt per man. Bicycle-mounted infantry follow the same rules as infantry, except when moving entirely on a road, in which case they double their Run move to 24" (this move cannot be used to assault). In addition, the first time they receive any order other than Run, or if they receive a pinning marker, they dismount and abandon their bicycles for the rest of the game; replace the models with models on foot.
- **Infantry Bicycle Section:** This is the same as a Regular Infantry section (see page 76 of the Armies of France and the Allies book), but the section is bought mounted on bicycles for +1pt per man. Bicycle-mounted infantry follow the same rules as infantry, except when moving entirely on a road, in which case they double their Run move to 24" (this move cannot be used to assault). In addition, the first time they receive any order other than Run, or if they receive a pinning marker, they dismount and abandon their bicycles for the rest of the game; replace the models with models on foot.

ATR Team on Motorcycle/Sidecar

The Polish army made extensive use of motorcycles. The Falcon Motorcycle with the Sidecar was extensively used to transport motorized troops while the Falcon Motorcycle w/o the sidecar was used for individual transportation of messengers/runners or other staff soldiers. Within a motorized rifle platoon, the team members operating the anti-tank rifle may be mounted in the motorcycle/sidecar version if they were part of the platoon staff instead of a member of the fourth section.

Cost	31pts (Inexperienced), 50pts (Regular), 59pts (Veteran)
Composition	2 Men mounted in a Motorcycle w/ Sidecar
Weapons	Anti-tank Rifle
Special Rules	<ul style="list-style-type: none"> • Motorbike

Polish Cavalry

The Polish Cavalry represented a significant proportion of the Polish army at the start of the war, comprising a full 10% of the army. The cavalry brigades and regiments were fully supported with their own heavy weapons including MMG's, anti-tank rifles, mortars and artillery. As such, many units normally associated with the infantry were encountered by the Germans during the 6 weeks of fighting. The following modifications represent the actual structure and equipment of the Polish cavalry regiments fielded at the start of the war.

Polish cavalry, though organized into small sections had incredible morale due to their proud histories. Though smaller than squads and sections of the Polish army and armies of other nations, they were as resilient as the larger sections found elsewhere.

Cavalry Section

The Polish Cavalry units were organized squadrons of four troops of 6 men each with only 1, or occasionally 2, of the sections equipped with the wz.28 Automatic Rifle (BAR). The Cavalry Section should be as follows:

Cost	90 pts (Veteran), 72 pts (Regular)
Composition	1 NCO and 2 Men mounted on horses
Weapons	Cavalry carbines
Options	<ul style="list-style-type: none">• Add up to 3 additional horse-mounted soldiers at +15pts each (Veteran) or +12pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts• Equip the entire unit with lances for +1pt per man
Special Rules	<ul style="list-style-type: none">• Cavalry Carbines: These short-barreled rifles count as pistols when used from horseback, and rifles when used on foot• BAR: note that the BAR Automatic Rifle may not fire while the operator is mounted• Lances: Units equipped with lances gain one additional attack in close quarters, but may not fire their carbines while mounted. Lances are discarded if the unit dismounts• Cavalry Elan: The unit is considered at "At Full Strength" if they start the game with 6 models in the unit. While they are at their starting strength, they may reroll failed order tests.

Cavalry ATR Team

Cavalry companies were also issued the wz.35 "Ur" AT Rifle. To reflect this, the Polish Anti-Tank Rifle team may be mounted on horses for +4 points. If mounted on Horses, the loader is assumed to have a Cavalry Carbine while mounted and may fire the carbine while mounted. However, they may not fire the Anti-Tank Rifle until they are dismounted.

Cavalry Scout Section

The Polish Cavalry units included a platoon of cyclists to serve as scouts for the regiment. They were organized squadrons similarly to a regular cavalry platoon but had four troops of 6 men each and an additional section of four men equipped with the wz.28 Automatic Rifle (BAR). The Cavalry Section should be as follows:

Cost	56 pts (Veteran), 44 pts (Regular)
Composition	1 NCO and 3 Men mounted on Bicycles
Weapons	Cavalry carbines
Options	<ul style="list-style-type: none">• Add up to 2 additional Bicycle-mounted soldiers at +14pts each (Veteran) or +11pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts
Special Rules	<ul style="list-style-type: none">• Bicycles: Bicycle-mounted infantry follow the same rules as infantry, except when moving entirely on a road, in which case they double their Run move to 24" (this move cannot be used to assault). In addition, the first time they receive any order other than Run, or if they receive a pinning marker, they dismount and abandon their bicycles for the rest of the game; replace the models with models on foot.

Cavalry MMG Team

The Polish Cavalry regiments included a company of two MMG platoons as well as two MMG teams within the scout platoon riding bicycles. Therefore, this entry represents an MMG team mounted on horses or bicycles at the start of the game.

Cost	71 pts (Veteran), 56 pts (Regular)
Composition	3 Men mounted on horses
Weapons	MMG
Options	<ul style="list-style-type: none">• Replace the horses with Bicycles for -3pts
Special Rules	<ul style="list-style-type: none">• Cavalry:• Bicycles: Bicycle-mounted infantry follow the same rules as infantry, except when moving entirely on a road, in which case they double their Run move to 24" (this move cannot be used to assault). In addition, the first time they receive any order other than Run, or if they receive a pinning marker, they dismount and abandon their bicycles for the rest of the game; replace the models with models on foot.

Cavalry Medic

Polish Cavalry regiments included a two paramedics in their support logistics elements. They rode on horseback but, of course, had to dismount to perform their duties.

Cost	32 pts (Veteran)
Composition	1 Medic mounted on a horse
Weapons	Pistol or none as depicted on the model
Options	<ul style="list-style-type: none">• Add up to 2 assistants on horseback at +15pts each
Special Rules	<ul style="list-style-type: none">• May not use the medic's abilities while mounted on horseback.

Cavalry Pioneer Section

Polish Cavalry regiments included a single pioneer section as part of the regimental command. In addition, most cavalry brigades included a pioneer squadron (platoon),

There role was typical of Polish pioneers responsible for building obstacles, bridges and defensive works. However, it appears some were equipped with flamethrowers though more research is needed to confirm this. However, this would explain the inclusion of a “fire/gas” taczanka, ostensibly to carry their fuel..

Cost	105 pts (Veteran)
Composition	1 NCO and 6 Men mounted on horses
Weapons	NCO has a pistol while the soldiers have Cavalry carbines
Options	<ul style="list-style-type: none">• Add up to 6 additional horse-mounted soldiers at +15pts each
Special Rules	<ul style="list-style-type: none">• Cavalry Carbines: These short-barreled rifles count as pistols when used from horseback, and rifles when used on foot

TACZANKA WZ.36 (misspelled in army book)

In addition to the MMG platoon within a cavalry regiment’s machinegun company, there was also a platoon of 4 taczankas. The Taczanka was a 3-man, 4-wheeled horse drawn cart with a Maxim or Browning MMG on the back. The cart’s frame was articulated with a joint in the center so it could turn easily to follow the horses. These were used extensively in Cavalry Regiments to provide the machinegun support needed by fast moving cavalry. In addition to six machine guns transported on horseback to be manned by cavalry men on the ground, each regiment had two taczanka sections with two taczankas each.



Cost	16 pts (Inexperienced), 20 pts (Regular)
Weapons	1 rear-facing MMG covering the rear arc
Damage Value	3+ (Soft Skinned)
Options	<ul style="list-style-type: none">• Give the MMG the Flak Rule firing a 360 degree firing arc for AA shooting only. +10 pts
Special Rules	<ul style="list-style-type: none">• Just a cart: The taczanka moves as a wheeled vehicle. In addition, to represent the vulnerability of the horses, it has been given an unusually low Damage Value, and every time it suffers one or more pin markers as a result of an enemy attack, it automatically suffers one further pin marker in addition

10th Motorized Cavalry Brigade Section

The 10th Cavalry Brigade began as a standard cavalry unit but was chosen as the first brigade to be fully motorized and trained with the new equipment. The brigade's unit structure for its cavalry-turned-infantry regiments remained unchanged from their cavalry organization. A platoon continued to be made of four troops. Three had 6 men with one equipped with the wz.28 Automatic Rifle (BAR). The fourth also had 6 men but without the BAR. This section would be used as a platoon reserve to strengthen the line where needed and would also be dissolved to feed the remaining three sections after heavy casualties were sustained.

Some rifle platoons of the brigade were organized into only three sections of 8 men each with each section equipped with a wz.28 automatic rifle. This was done according to the desire of the platoon commander as was his right according to the regulations.

The 10th Motorized Cavalry Section should be as follows:

Cost	52 pts (Veteran), 40 pts (Regular)
Composition	1 NCO and 3 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 4 additional soldiers at +13pts each (Veteran) or +10pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts
Special Rules	<ul style="list-style-type: none">• Cavalry Elan: The unit is considered at "At Full Strength" if they start the game with 6 or 8 models in the unit. While they are at their starting strength, they may reroll failed order tests.

Polski-FIAT PF621L Truck

The Polski-Fiat 621L was the most common truck in use by the Polish military. The standard use of the truck was to carry 12 men in the back and one of the unit's command staff in the cab next to the driver for a total capacity of 13. This entry reflects that.

Cost	33pts (Inexperienced), 41pts (Regular), 49pts (Veteran)
Weapons	None
Damage Value	6+ (Soft Skinned)
Transport	13 Men
Tow	Light howitzer, light or medium anti-tank gun
Options	<ul style="list-style-type: none">• May add a rear-facing pintle-mounted MMG for +15pts, losing all transport capability

Polski-FIAT 518 Łazik Field Car

Similar to the Polski-FIAT 508 Łazik , the Polski-Fiat 518 Łazik was a common field car used to transport machine guns and their teams. It could carry more passengers than the PF508 as it was based on the PF518 truck frame.

Cost	21pts (Inexperienced), 25pts (Regular), 29pts (Veteran)
Weapons	None
Damage Value	6+ (Soft Skinned)
Transport	5 Men

Armoured Trains

Author's Note: Though Armoured trains are covered in the "*Germany Strikes*" campaign book, there are many inconsistencies in the entries such as Polish wagons upgrading Light howitzers to Medium for +40 points while German gun wagons get the same upgrade for only +20 points. In addition, the actual variety of cars used in the trains is staggering and just in the Polish Army, there were many variations and these would eventually be used in the German and Soviet armoured trains. For this reason, I feel a more specific listing of the Polish armoured trains is warranted. I have tried to keep the point values consistent with the Vehicle Design System including the "Armoured All Around" ability which does not seem to factor into the published train entries. Unpowered, which is not in the Vehicle Design system was valued at -5 points.

The Polish army had extensive experience in the use of armoured trains, having employed over 100 of them between 1918 and 1922. By 1939, the armoured trains were reorganized and modernized being reduced to only 10 trains.

Polish armoured trains were standardized in makeup with an armoured engine, and assault wagon, two artillery cars and two flatcars. The only real difference between the trains was the design of the individual cars and the actual armament of the artillery wagons. The following entries reflect Polish Armoured trains in service during the invasion of Poland. Note that these entries replace those listed in the "*Germany Strikes*" campaign book for Polish trains only. Note that if you choose to use the Polish Gun Wagon from the campaign book, it incorrectly lists the wagon as having a pintle mounted HMG. This should be a pintle mounted MMG.

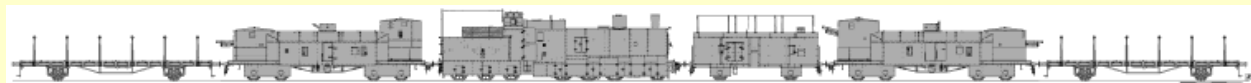
Not all of the Polish Armored trains saw direct combat with German troops but all were used to bombard German positions and several came under bombardment from German artillery. Though several were attacked by the Luftwaffe, only Nr.11 and were slightly damaged. However, train Nr.13 "General Sosnkowski" was derailed after a bomb attack and was the only train lost due to Luftwaffe attack.

Nr.51 also engaged Soviet troops

Train Nr.11* & Nr.12*



Train Nr.13



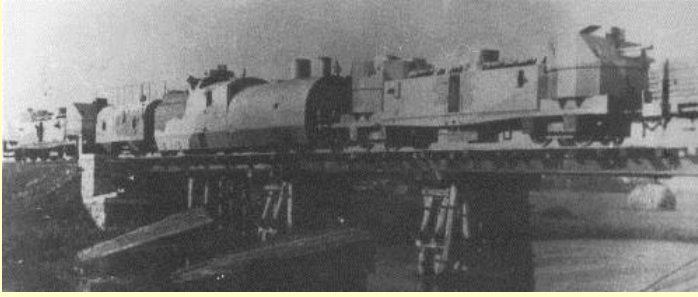
Train Nr.14



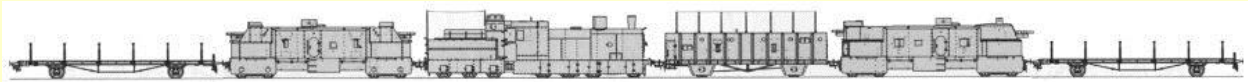
Train Nr.15



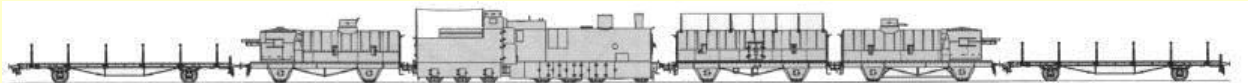
Train Nr.51*



Train Nr.54*



Train Nr.55*



Pictures of trains Nr.52 and Nr.53 prior to the end of the invasion have not been found. However, there is a picture of Nr.53's artillery wagons and assault wagon after it was captured and it appears that its cars were very similar to that of train Nr.55.

**Trains that saw direct combat with German forces, including Nr. 53.*

ARMoured ENGINE

An armoured steam locomotive, a Ti3 Series, powered each of the trains. This standardization was deliberate and aided in the maintenance, repair and training associated with the train. The armoured plating arrangement may have differed but the base engine was common under all of the armour plate.

Upon the tender, there was a train's command compartment, separated from a driver's cab by a thin wall. Upper side walls of the command compartment were rounded or slanted in some locomotives, and had small windows with hatches. Above the compartment there was a cylindrical observation turret, with 8 vision slots and a hatch in a roof (turrets differed in details, mostly in construction of vision slots and hatches).

Cost	85 pts (Regular)
Weapons	None
Damage Value	7+
Tow	May tow or push other rail wagons
Options	<ul style="list-style-type: none">• May add a MMG in a turret with the flak special rule +25pts (represents the engine of train Nr. 51 only)
Special Rules	<ul style="list-style-type: none">• Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier• Command Vehicle

Assault Wagon

The assault wagon (Polish nomenclature, "wagon szturmowy") was intended for the transportation of an assault platoon.

Each train had its own Assault wagon and no two were designed alike. The length would often vary and one even had an observation dome atop the wagon. However, they were all armed similarly and the armour was generally similar to artillery wagons.

The wagon was home to the train's signalmen and stretcher-bearers as well as the assault platoon. The assault platoon consisted of 32 men (1 officer, 7 NCOs, 24 soldiers, with 2 LMGs).

These wagons were also equipped with Polish long-range radio RKD/P, placed in a separate radio cab in the middle of the wagon. The radio had maximum range 50–80 km with telegraphy (probably well below 20 km with voice transmission). The wagon was also fitted with a power generator, batteries, and a large clothesline aerial on the roof.



Cost	147 pts (Regular)
Weapons	2 MMG's covering the left flank and 2 MMG's covering the right flank
Damage Value	7+
Ttransport	36 men
Options	<ul style="list-style-type: none">• None
Special Rules	<ul style="list-style-type: none">• Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier• Unpowered

Assault Platoon Infantry Section

The assault platoon consisted of 32 men; 1 officer, 7 NCOs and 24 soldiers, with 2 BARs. The role of this platoon was to provide infantry defense of the train as well as reconnaissance. During the invasion, these platoons were also used to counterattack German advances and support other units in defense of specific objectives while the train itself provided the artillery support. These platoons rode in the armoured train's Assault Wagon.

Cost	50 pts (Regular)
Composition	1 NCO and 4 Men
Weapons	Rifles
Options	<ul style="list-style-type: none">• Add up to 3 additional soldiers at +10pts each (Regular)• Up to 1 man can be armed with a BAR Automatic Rifle for +5pts
Special Rules	None

Based on similarly sized platoons in the Polish army, the Platoon structure appears to be as follows:

- Officer team – LT and bodyguard
- Platoon staff section - 1 NCO (deputy commander), 5 soldiers
- 1st Rifle Section - 2 NCO's, 6 soldiers, Rkm
- 2nd Rifle Section - 2 NCO's, 6 soldiers. Rkm
- 3rd Rifle Section - 2 NCO's, 6 soldiers

Artillery Wagons

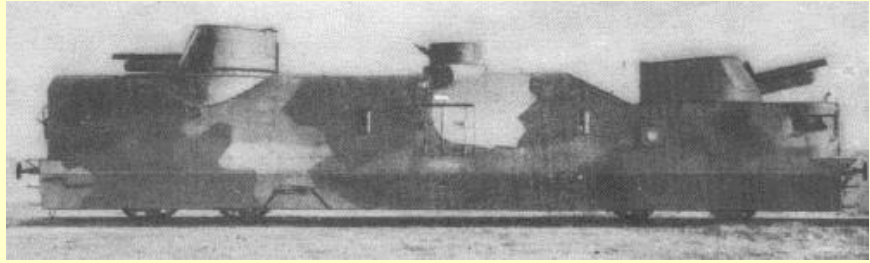
The true strength of the armoured train was its artillery and each train had two artillery wagons; one on either end of the train.

Unlike the locomotives, there was no standardization of Artillery Wagons in the Polish Army. Most of the cars were captured or given to the Polish as reparations for WW1 and as a result, a variety of designs existed. The Polish army did design and build several of their own based on their evaluations of these previously used cars. However, the most recent Polish built cars were the formidable Type II artillery wagons with better armour and twin howitzers.

Even with the variety of equipment available, it appears there was a deliberate attempt to place similarly designed Artillery wagons on the same train. Sometimes, the pair of artillery wagons in a specific train were identical but they were almost always different than those in other trains. The rest of the time, even the artillery wagons in a single train differed in armament. Below is a selection of the artillery wagons in use during 1939 and the trains of which they were a part. Also provided is the serial number of the wagon if known.

Artillery Wagon Type II - Train Nr.11 & Nr.12

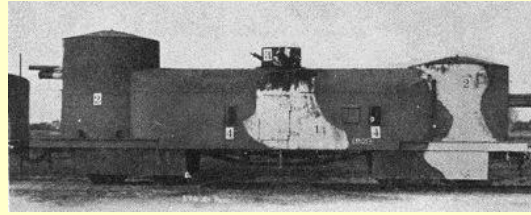
Each of these trains had a matched set of four-axle artillery wagons. These were the most modern artillery wagons built by Poland in 1921. These were among the most formidable artillery wagons in service at the time.



Cost	250 pts (Regular)
Weapons	<ul style="list-style-type: none"> 1 Medium Howitzer in a Forward Turret. 1 Light Howitzer in a rear turret with Limited Elevation 2 MMG's covering the Rear arc 2 MMG's covering the Front arc 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	8+
Options	None
Special Rules	<ul style="list-style-type: none"> • Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier • Unpowered • Forward Turret: The medium howitzer can fire indirectly within a 360° arc. However, the gun can only fire directly in the front, right and left arcs. • Limited Elevation: The gun in a turret with this rule may only fire with Direct Fire, never with indirect fire.

Artillery Wagon Type I - Train Nr.13 (699053 and 699054)

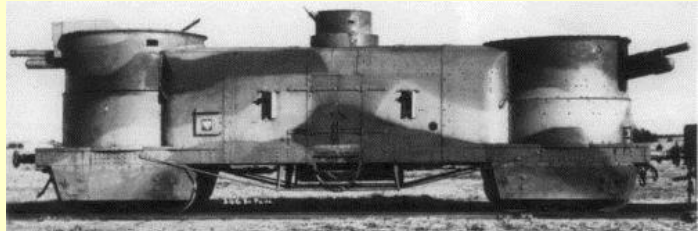
This train also had a matched set of four-axle artillery wagons built in Poland in 1920. However, the guns were 75mm wz.02/26 howitzers in turrets with a limited traverse due. These cannons were re-bored Russian cannons.



Cost	190 pts (Regular)
Weapons	1 Light Howitzer covering the front, left and right arcs 1 Light Howitzer covering the rear, left and right arcs 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	None
Special Rules	<ul style="list-style-type: none"> Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier Unpowered

Artillery Wagon - Train Nr.14 (658641 & 690601)

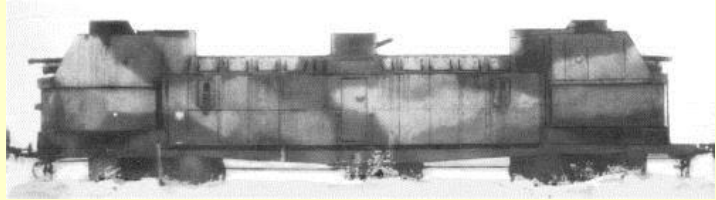
Though built with four axles, this train's artillery wagons not only were of a different design than those on other trains, they differed slightly in armament though they were still almost as formidable as the Type II wagons. Their origin is disputed as some claim they were captured Russian cars rebuilt in Poland. However, it is likely these were built in Poland using parts of old and captured wagons.



Cost	200 pts (Regular)
Weapons	1 Med Howitzer covering the front, left and right arcs 1 Light Howitzer covering the rear, left and right arcs 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	<ul style="list-style-type: none"> May give both turrets coaxial twin-MMG's (Wagon 690601 only) +20 pts
Special Rules	<ul style="list-style-type: none"> Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier Twin-MMG: both MMG's must fire at the same target unit Unpowered

Artillery Wagon "Krasnoye Sormovo" - Train Nr.51

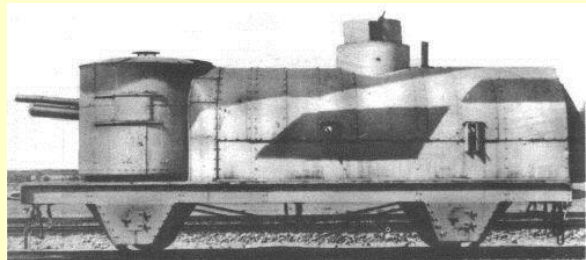
This train also had a matched set of four-axle artillery wagons. These were standard Soviet wagons built in Krasnoye Sormovo works. The guns likely were Russian 76.2mm M.02 cannon re-bored to make them 75mm wz. 02/26 cannon to match the standard artillery caliber of the Polish Armoured trains.



Cost	210 pts (Regular)
Weapons	2 Light Howitzer in turrets each with twin-coaxial MMG's 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	None
Special Rules	<ul style="list-style-type: none"> • Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier • Unpowered • Twin-MMG: both MMG's must fire at the same target unit

Artillery Wagon "KBPP" - Train Nr.55 (630728 & 630729) and Train Nr.53

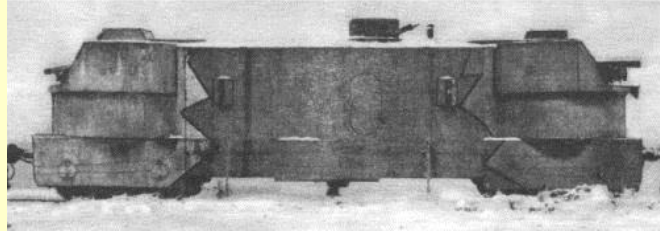
These two-axle artillery wagons were designed by KBPP in Warsaw differed from most other artillery wagons in that they had a single 75mm wz.02/26 howitzer mounted in a limited traverse turret.



Cost	140 pts (Regular)
Weapons	1 Light Howitzer covering the front, left and right arcs 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	None
Special Rules	<ul style="list-style-type: none"> • Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier • Unpowered

Artillery Wagon ex-Russian - Train Nr.54 (450012 & 460025)

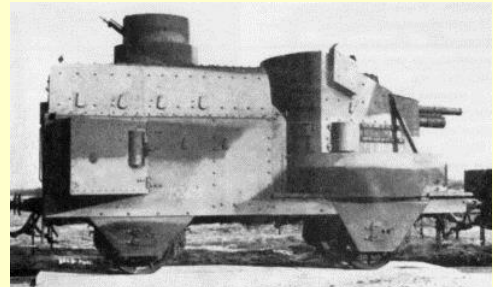
This train also had a set of four-axle artillery wagons that differed slightly in weaponry. They were captured Soviet wagons but their builder is not known for certain. They were part of the modernization program and the Russian guns were re-bored to make them 75mm wz.02/26 which was the standard 75mm gun on the armoured trains.



Cost	210 pts (Regular)
Weapons	<ul style="list-style-type: none"> 1 Light Howitzer covering the front, left and right arcs with coaxial Twin-MMG 1 Light Howitzer covering the rear, left and right arcs with coaxial Twin-MMG 2 MMG's covering the Right flank 2 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	<ul style="list-style-type: none"> • Upgrade front turret to a Medium Howitzer <u>but remove all coaxial twin-MMG's</u> from both Turrets (Wagon 460025 only) -10 pts
Special Rules	<ul style="list-style-type: none"> • Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier • Unpowered • Twin-MMG: both MMG's must fire at the same target unit

Artillery Wagon “Cannon” - Train Nr.15 (141164)

There were two of these two-axle artillery wagons of Hungarian origin originally assigned to Train Nr.15. During the modernization work on the train, one of the wagons was replaced with a “howitzer” wagon (see next entry). The fate of the second “cannon” wagon, #141155 (renumbered to #153560) is not known.



Cost	130 pts (Regular)
Weapons	<ul style="list-style-type: none"> 1 Light Howitzer covering the front, left and right arcs 1 MMG's covering the Right flank 1 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	None
Special Rules	<ul style="list-style-type: none"> • Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier • Unpowered

Artillery Wagon “Howitzer” - Train Nr.15 (430047)

These two-axle artillery wagons was designed and built in Poland in 1920 seeing action during the 1920-1921 war with Russia. It replaced the Hungarian artillery wagon on Train Nr.15 in the late 1930's.



Cost	140 pts (Regular)
Weapons	1 Med Howitzer in a Forward Turret 1 MMG's covering the Right flank 1 MMG's covering the Left flank 1 MMG in a turret with the Flak special rule.
Damage Value	7+
Options	None
Special Rules	<ul style="list-style-type: none">• Armoured all around: flank and rear Pen modifiers do not apply, however hits against the top armour do benefit from the normal +1 Pen modifier• Unpowered• Forward Turret: The medium howitzer can fire indirectly within a 360° arc. However, the gun can only fire directly in the front, right and left arcs.

AA Flatcar - Train Nr.55

On 11 September the crew of armoured train Nr. 55 found an abandoned 40mm Bofors anti-aircraft gun in Łuków (W), which, seated upon a flatcar, remarkably strengthened the train's defence. This is the only known example of this type of car in an armoured train during the campaign.

Cost	60 pts (Regular)
Weapons	1 Heavy Autocannon
Damage Value	6+
Options	None
Special Rules	<ul style="list-style-type: none">• Unpowered• Flak

Artillery Flatcar - Train Nr.11

On 14 September the crew of armoured train Nr. 11 found four abandoned 75mm field guns on an evacuation train. These guns, two per flatcar, were used to increase the train's firepower and were used later that day, crewed by the train's crew.

Cost	100 pts (Regular)
Weapons	1 forward light howitzer covering the front arc 1 rear light howitzer covering the front arc but firing Indirect only (see special rule)
Damage Value	6+
Options	None
Special Rules	<ul style="list-style-type: none">• Unpowered• Rear light Howitzer: Both howitzers were mounted facing the same direction so they both cover the same arc. The rear-ward howitzer could not fire over open sights due to the forward howitzer being in the line of fire. Therefore the rearward howitzer may only fire indirectly.

Improvised Armoured Trains

During the invasion, several improvised armoured trains were created, especially in the defense of Warsaw. These consisted of regular railway cars hastily armoured for use in combat. The IMPROVISED ARMoured WAGON entry from the Germany Strikes campaign book represents these well.

Armoured Draisine Platoons

In addition to the standard consist listed above, each armoured train was accompanied by an armoured draisine platoon consisting of 2 FT-17's and 4 TK/TKS tankettes. Each end of the train had a draisine for an FT and 2 TK/TKS tankettes. These ran ahead of and behind the armoured train to perform reconnaissance along the train's route.

The Draisines were designated "Draisine R" for the Renault and "Draisine TK (or TKS)" for the tankette. Both types of draisines were powered by the vehicle it carried either by direct contact between the tracks and rail (for the Draisine TK/TKS) or by a transmission system where the tracks powered the draisine's wheels (for the Draisine R).

Additionally, one tankette in each pair of draisines TK/TKS was equipped with a radio but it was not for communication with the other platoon tanks. Instead it was used to communicate with the armoured train.



Trains Nr.13 and Nr.15 had a different mix of vehicles for their Draisine platoons. Train Nr.13 had two Draisine R's and two Tatrás. Train Nr.15 had only two Tatrás. Tatrás were a relatively obsolete armoured rail car that was armed with two MMG's in a turret. Being limited to moving on the railroad track itself, they were generally replaced in the other 8 trains with the armoured draisines.

These vehicles are generally well represented in the book *Germany Strikes* and the entries can be used from that book with a single exception for the Polish TKS Tankette Railway Carriage.

Draisine TK or TKS (Polish TKS Tankette Railway Carriage in "*Germany Strikes*" book)

Remove the option to upgrade its weapon to a light automatic cannon. All of the TKS vehicles assigned to armoured trains were equipped with MMG's. Also note that the TK or TKS units equipped with the radios to serve as forward observers for the train's artillery.

You may upgrade one Tankette in your army to serve as a Forward Artillery Observer for +90 points.

Platoon Selectors

The following are new platoon selectors that can be used to represent historical mixes of troops found during the conflict. These do not replace the existing platoon selectors but are merely variations that represent historical unit mixes within the various localities during the invasion of Poland.

Polish Armoured Train Platoon

For the purposes of the game a single armoured train of wagons coupled together is treated as a platoon. The Polish units in this selector are either new, and can be found in the section on introducing Armoured Trains to your game (see page 99), or are as described in the Armies of France and the Allies book.

Sufficient transport facilities must be available for each Infantry Section included in the force.

POLISH ARMoured TRAIN PLATOON

1 Armoured Engine
1 Assault Wagon
1 Artillery Wagon
1 Officer – 1st or 2nd Lieutenant
1 Regular Infantry Section

plus:

0-1 Captain or Major
0-1 Medic
0-1 Forward Observer (Artillery or Air)
0-1 Command/Assault Wagon
0-4 Infantry Sections (Regular Infantry Section, Inexperienced infantry Section, up to 3 Polish Assault Sections)
0-1 Polish Artillery Wagon

Plus:

Vehicles

0-2 Polish TKS Tankette Railway Carriages
0-1 Polish Light Tank Railway Carriage

OR

0-1 TATRA T18 armoured wagon

Polish Armoured Draisine Platoon

The Polish Armoured Draisine platoon is a special type of tank platoon. The tanks assigned to this platoon would operate along and ahead of the armoured train to which they were assigned, performing reconnaissance and assisting in the defense of the train.

POLISH ARMoured DRAISINE PLATOON

1 Command TKS Tankette with MMG and with "No Radios" rule
1 FT-17 Tank
1 TKS tankette with MMG

plus:

0-1 Lieutenant
0-1 Forward Observer (Artillery or Air)
0-4 Polish Assault Sections
0-2 TKS tankette with MMG
0-1 FT-17 Tank

Polish Cavalry Squadron Platoon

Polish Cavalry were organized into regiments and brigades. They included their own support weapons but not artillery other than anti-tank guns. Artillery support was in the form of 75mm Field guns (light artillery). However, these were in separate horse artillery squadrons (platoons) assigned to the various cavalry brigades. Some Cavalry Brigades incorporated tankettes and/or armoured cars in their regiments but this was not universal. Further, some of the horse artillery squadrons were in the process of being mototrixxed and were issued PF 621L trucks to tow their field guns.

This selector is not intended to serve as a correction to the selector found on page 27 of the *Germany Strikes* campaign book. This selector is intended to represent units from a cavalry brigade fighting the battle without support from non-cavalry units.

POLISH CAVALRY SQUADRON REINFORCED PLATOON

1 Lieutenant – First or Second - Mounted

2 Cavalry sections

plus:

Headquarters

0–1 Captain or Major

0–1 Forward Observer (Artillery)

0–1 Medic

Infantry

0–3 Cavalry sections

0–1 Cavalry Scout section

0-1 Marksman

0–1 Machine gun team or Cavalry MMG Team

0–1 Mortar team: 81mm medium mortar

0–1 Anti-tank rifle team or Cavalry ATR Team

Artillery

0–1 Artillery unit from: Anti-tank gun: Bofors 37mm light anti-tank gun

Field artillery: Light field gun (howitzer), 75mm Armata

Polowa

Armoured Car

0–1 Armoured car: Tacsanka wz.36, wz.29 Ursus or wz.34

Armoured Car

Tankette

0–1 TKS tankette

Transports and Tows

0–1 **Tow:** Truck or Horse-Drawn Limber

SPECIAL RULES

- Mounted Officers – The officer and his assistants may be mounted on horses for +5pts per model.
- Mounted Marksman – The marksman may be mounted on a horse for +2pts. However, he may not use the Sniper rule while mounted and treats his rifle as a Cavalry Carbine while mounted.
- The Communication Breakdown, No Hope of Retreat and Elite Officer Class army special rules are in effect, as described on page 75 of the *Armies of France and the Allies* supplement.

10th MOTORIZED CAVALRY BRIGADE REINFORCED PLATOON

The 10th Motorized Cavalry Brigade was tasked with delaying the German advance south of Krakow. On the first of September, Colonel Maczek had been given command of all of the units in the area. He now commanded his own brigade as well as units from KOP regiments and ON Battalions.

10th MOTORIZED CAVALRY BRIGADE REINFORCED PLATOON

1 Lieutenant – First or Second –

2 Infantry sections 10th motorised cavalry brigade infantry sections or
Motorcycle Recon Section

plus:

Headquarters

0–1 Captain, Major or Colonel *Maczek*

0–1 Forward Observer (Artillery)

Infantry

0–3 Infantry sections (10th Motorised Cavalry Brigade infantry
Section, Motorcycle Recon Section, Pioneer Section, KOP
Infantry Section or ON Infantry Section)

0–1 Machine gun team

0–1 Mortar team: 81mm medium mortar

0–1 Anti-tank rifle team

Artillery

0–1 Artillery unit from:

Anti-tank gun: Bofors 37mm light anti-tank gun

Field artillery: Light Field Gun 75mm Armata Polowa or
medium howitzer 100mm Skoda

Anti-aircraft gun: Bofors 40mm heavy automatic cannon

Tankette

0–1 TKS tankette or Polski-FIAT 508IIIW łazik jeep w/ MMG

Tanks

0–1 Tank from Vickers E (note: about one third were Type A
with two MMG turrets, the rest Type B with a 47mm light
anti-tank gun and coaxial MMG) or TKS-D Tank Destroyer

Transports and Tows

0–1 Transport vehicles per infantry section: Polski-FIAT 621L
Truck, Krupp L2H 43 field car, wz.34 Halftrack, Polski-FIAT
508IIIW łazik jeep

0–1 **Tow**: PZInz 302, C4P, C2P

SPECIAL RULES

- Mounted Officers – may be mounted on Motorcycle/Sidecar for +5pts per model if the list includes at least two Motorcycle Recon Sections.

- All units except for ON infantry Sections must be Regular or Veteran.

- The Communication Breakdown, No Hope of Retreat and Elite Officer Class army special rules are in effect, as described on page 75 of the *Armies of France and the Allies* supplement.

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