

The Real Story of the T-34 tank.

The T-34 has gone down in history as one of the most effective weapons ever produced for armored warfare. From 1940, when the first T-34s began rolling off the assembly line, they remained in production until 1958. This stands as one of the longest, if not the longest production run in history for a weapon of this type.

The concept of the T-34 began with an armored vehicle known as the T-3, the brainchild of American inventor J. Walter Christie who, in 1931, introduced a tank which, with tracks removed, was capable of traveling over 60 miles an hour. Although his invention revolutionized armored warfare, its potential was not fully recognized at the time by the Americans. The Russians, however, purchased several of these relatively light, 10 ton machines and immediately began to incorporate them into their own designs. The result was the BT Medium Tank, produced between 1936-38. Although the BT vehicles were remarkable for their speed and performance, their limitations were quickly realized and Soviet engineers, most notably Mikhail Koshkin and Alexander Morozov, began thinking ahead to a more formidable fighting machine.

In 1938, The BT was replaced by the A-20, whose sloping armor and small turret became the blueprint for later designs. The following year, with the shadow of war looming over Europe, the Russians introduced the T-32, which kept the basic design of the A-20 but thickened its armor plating and upgraded its 45 mm gun to a more lethal 76.2 mm cannon.

One of the most significant differences between the T series tanks and the German tanks, against whom they would soon be engaged on the battlefield, was their engine. German tanks, as well as those of most of other countries, relied on gasoline engines. The Russians, however, adapting a design created by the Italian Company Fiat, created a powerful and fuel efficient 12 cylinder, 38 gallon diesel engine capable of 32mph, which they christened the V2.

In 1940, with the Second World War now underway, the T series received a further upgrade, particularly to the configuration of its armor, thanks to engineers N.A. Kucherenko and M.I. Tarshinov. The result was the 26 ton T-34, prototypes

for which successfully completed an extraordinary trial run from Kharkov, one of several production facilities for the T-34, all the way to Moscow in the spring of 1940, a distance of almost 1800 miles. The tank would continue to undergo modifications in the coming years, appearing as the T34/76A, B and C and, in late 1943, achieved its ultimate incarnation under the direction of V.V. Krylov as the T34/85, which sported a devastating 85mm cannon. However, by 1940, the basic design was in place and the T-34 went into full production in June of that year.

After the German invasion of Russia, which began in June of 1941, Soviet tank manufacturing plants in both Kharkov and Leningrad were evacuated east of the Ural mountains to the site of the Chelyabinsk Tractor Works. Having converted its facility to the production of armored vehicles, this huge factory became known as 'Tankograd'. Other factories were converted to tank production in Omsk, Sverdlovsk and Nizhny Tagil. Meanwhile, at Stalingrad, the Zerzhinski Tractor Factory continued building T-34's, even after the city had been invaded, and largely reduced to rubble, by the German 6th Army. At Stalingrad, unpainted tanks were driven straight out of the Zerzhinski factory gates and directly into battles going on around the factory. Between 1940-43, production numbers for the T-34 remained steady at approximately 10,000 machines per year.

Formidable as the T-34 proved to be, the machine was not without its flaws. The transmission was considered unreliable, its steering mechanism primitive and the interior of the tank notoriously cramped and uncomfortable. In addition, wireless radio was only carried in command vehicle, forcing other tanks to communicate with hand signals. The shape of the turret also prevented the cannon from being lowered enough to engage the enemy at very close range which, given the photographic evidence, was not an unusual event. Some, but by no means all of these shortcomings were addressed.

Some, but by no means all of these shortcomings were addressed. Principal innovations consisted of the hardening of battle armor plate, the upgrading of weapons and the removal of rubber from the wheels, due to the shortage of that resource. In addition, the turret was eventually enlarged to permit access by three men instead of two.

The T-34 was known to the men who served in it as 'The Red Coffin' or 'The Coffin for Four Brothers' (four being the number of the crew). The Germans gave it the nickname 'Mickey' since, when the tank had been abandoned, its opened circular turret hatches gave the tank a profile something like that of Mickey Mouse. The Finns made good use of captured T-34's, which they referred to as 'Sotka' or 'Duck'.

In its later design form, the T-34 achieved greater maneuverability and armor defenses than its main opponents, the German Sturmgeschütz III and Mark IV. Although it was unlikely to come out of a showdown with such monsters as the Panther or Tiger, the T-34's numerical superiority in most cases guaranteed it would remain a dangerous opponent.

Another failing that is often mentioned is the poor quality of crew training for men operating the T-34. Combined with poor use of terrain and predictability of battle tactics, this seriously diminished the overall potential of the weapon.

In spite of these disadvantages, the T-34 struck fear into even the most hardened opponents. It would be hard to imagine a greater compliment than that paid to it by German General Heinz Guderian, one of the pioneers of Blitzkrieg in which the tank featured so prominently. By the fall of 1941, the T-34 has so out-performed the its German counterpart, the Panzer Mark IV, that Guderian suggested the quickest way to resolve the imbalance would simply be to copy the T-34, rather than attempt to improve upon its design. Another German Field Marshall von Kleist, having witnessed the T-34's awesome destructive power, declared it to be the finest tank in the world.

Unlike most tanks used by other Allied nations during WWII, such as the Churchill and the Sherman, the T-34 continued to see action long after the war, on battlefields as far away as Egypt, Korea, Hungary and Vietnam. In the 1990's, the last operational T-34's saw action in the Bosnian Conflict.

One of the most amazing stories I have encountered concerning a T-34 is that of a fully armed T-34/76A discovered at the bottom of a shallow lake in a forest near Johvi, Estonia. The tank saw action on the Narva front in 1944, was captured by the Germans and used briefly in combat before being deliberately ridden into the lake. The tank was hauled out on the 14th September, 2000 and, according to some accounts, has been now restored to working condition after half a

century underwater. There are several U-tube clips of the tank emerging from the lake, one of which is listed here.

www.youtube.com/watch?v=r7boxp1Sk2w

This short essay does not attempt to portray anything more than a basic outline of the T-34. For those inclined to further study, a wealth of publications offer a more comprehensive look at this remarkable machine. Many, such as volume 9 of the excellent Armour in Profile Series, written by J.M Brereton and published by Profile Publications, are currently out of print and difficult to find. Among those still available, I strongly recommend the following -

T-34 in Action by Artem Drabkin and Oleg Sheremet

T-34/76 Medium Tank 1941-45 by Steven Zaloga and Peter Sarson

The T-34 Medium Tank (Russian Armor Volume 4) by M. Bariatinski

The T-34 Russian Battle Tank by Matthew Hughes and Chris Mann

T-34 Mythic Weapon by Robert Michulec and Miroslav Zientarzewski