

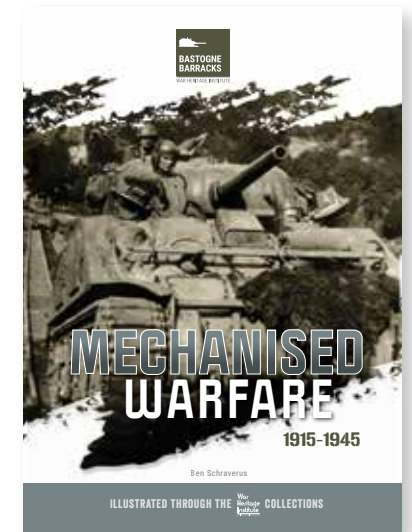


# Mechanised warfare

## 1915-1945

In 2022 the **War Heritage Institute** largely refurbished its Bastogne Barracks scenography in order to present visitors with a unique and enriching experience. The exhibition halls house a large collection of Second World War vehicles and guns. This military paraphernalia, ranging from the small Willys Jeep to the imposing ISU-152, over the Scammell, the Pacific, the Panzer IV and several Sherman variants, offers an insight into military mechanisation in the 1930s and '40s.

The **WHI** now completes this permanent set-up with a book highlighting thirty years of military vehicle developments in Belgium, France, Germany, Great Britain, the U.S.S.R. and the United States. Readers can in that way discover the histories of both the vehicles on display and the belligerents who deployed them during the war. Detailed information about the specific technical features of each vehicle, as well as anecdotes about their operational usage pepper the pages of this book focusing on men, machines and war.



13/12/2024

€ 34,50

368 pp. / 170 x 240 mm

300 ill. / Relié

EN ISBN 978 94 616 1960 0





Interior of the Mark IV tank.

© WH, John Vandenberg.

**Goodwood**  
18-20 July 1944

Urged by the Americans to accelerate his advance towards Caen, British General Montgomery decides to launch an offensive towards the Bourguibus ridge, southwest of the city. He deploys three armoured divisions, equipped with Shermans, Shermans Firefly and Cromvels. These impressive resources cannot prevent the British vehicles from encountering a determined and well-organized German defence, especially in the villages along the ridge. The site is indeed taken, but the British lose almost 300 tanks, compared to about 100 vehicles on German side. On 20 July heavy rainfall paralyses the front, marking the end of Operation Goodwood.

**The Piron Brigade in Normandy**  
8 August-2 September 1944

On 8 August 1944 the Piron Brigade, named after the major in command, lands in Normandy. The unit, also called 1<sup>st</sup> Belgian Group, consists of Belgians and Luxembourgers who managed to reach the United Kingdom. It appears at the front on 13 August and mourns its first victims on 16 August. The unit then liberates the Côte Fleurie, as well as the towns of Cabourg, Desvillers and Honfleur; it comes to a standstill in front of Le Havre. The advance claims 27 Brigade lives. On 4 September Piron and his men enter a cheering Brussels, after which they head towards Leopoldsborg and Maseik. The unit then takes part in the fighting raging in the Netherlands<sup>65</sup>.



On Tuesday 22 August 1944 a Daimler Armoured Car with the 1<sup>st</sup> Belgian Brigade Group's armoured squadron enters Villiers-sur-Mer and stops in front of the Hotel du Bras d'Or during Operation Puddle. The Belgians belong to the British 6<sup>th</sup> Airborne Division.  
© Canada Dept. of National Defence / Library and Archives Canada / 6112-1814-6.

152 BRABANT, W., dir., op. cit., 2014, p. 151-162.

**Mons**  
3-8 September 1944

In September 1944 the Americans chase the German army throughout Belgium. About 70,000 Wehrmacht soldiers (7<sup>th</sup> Armee and 5<sup>th</sup> Panzerarmee, as well as Kampfgruppen and various other units) are trapped in an enclave between Quévrain and Jemappes (the 'Mons Pocket'). They are not only in the line of fire of 3<sup>rd</sup> Armored Division Shermans, but also mercilessly bombed. Some 25,000 soldiers and four generals are captured; 3,500 German soldiers die in what is later called *Small Stalingrad*. However, more than 30,000 Landsers also manage to escape via secondary roads. Various resistance groups offer the Americans effective support, but pay a heavy price in the province of Hainaut. The 3<sup>rd</sup> Armored Division crosses the country in a mere week: Binche, Charleroi, Namur, Huy and Liège are liberated. It is the first Allied unit to capture a German city. At this stage of the war the German army is retreating to defend the homeland and the fights taking place in Belgium are mere delaying tactics rather than real defensive efforts<sup>66</sup>.

**Arracourt**  
19-22 September 1944

By mid-September 1944, just as General Patton's 3<sup>rd</sup> Army crosses the Moselle north and south of Nancy, the 5<sup>th</sup> Panzerarmee led by General der Panzertruppen Hasso von Manteuffel is tasked with destroying the American elements east of the city. In the subsequent confrontation near the village of Arracourt, the German 111. and 113. Panzerbrigaden face the vanguard of the American 4<sup>th</sup> Armored Division: one of the most intense tank battles of the entire campaign in the West. For three days the German Panthers, Panzer IVs and the Sturmgeschütz engage with the American M5A1 Stuarts, Shermans and M18 Hellcats. The Battle of Arracourt is a tactical triumph for the 4<sup>th</sup> Armored Division, as it defeats two Panzerbrigaden and inflicts significant damage, with only limited casualties in its own ranks. By the evening of 22 September 1944 Combat Command A of the 4<sup>th</sup> Armored Division has lost 24 guns (fourteen M4s, three M18s and seven M5A1s), while German losses total 79 guns, plus 75 others damaged and abandoned or quite unusable.



On 3 September 1944 a Task Force Mills column belonging to the 33<sup>rd</sup> Armored Regiment of the American 3<sup>rd</sup> Armored Division faces on the German infantry surrounded in the Châta area.  
© U.S. NARA, Washington D.C., n° 602971.

153 COLLIGNON, A., *Bataille de la poche de Mons*, in CHESSOMA, Belgium WWII, <https://www.belgium.be/belgique/en/collections/124102/03/bataille-de-la-poche-de-mons.html> (consulted on 08/06/2023).

**THE FIRST WORLD WAR: STARTING WITH A BANG**

With Robby Houben, historian and e-curator, War Heritage Institute



Lieutenant Henkart's two self-propelled gun cars: on the left the Opel with a Lewis machinegun, on the right the Pipe equipped for rifle fire. Road to Tienen, 1914.  
© WH, Tank Museum open-top Gun cars 1914, n° 14193.

Among the pioneers of motorisation is... the Belgian army! In 1914 it has some twenty cars<sup>65</sup>. To expand its fleet, it requisitions a large number of civilian vehicles, along with their drivers and mechanics. There are no plans to 'militarise' them. Reserve Lieutenant Henkart decides to armour his two personal cars, a Pipe and an Opel. He obtains steel plates from the Cockerill shipyards in Hoboken and has workers from the Belgian automotive company Minerva mount them on his two vehicles, which he then equips with Lewis machineguns.

Reconnaissance and raids for the headquarters are carried out until 6 September 1914, when Henkart and his crew are killed near Westerlo<sup>66</sup>. The initiative party gives rise to the creation of the corps of self-propelled guns

(auto-canon-mitrailleuses ACM) that will fight in Russia. When the front stabilises and the armies dig in, traditional cavalry units lose their purpose and usefulness. It is only in 1918, when the front breaks and the Allied armies pursue the enemy, that cavalry is once again deployed, and even charges. On 19 October General Buffin's (and Colonel van Strydonck's<sup>67</sup>) cavalrymen indeed launch an attack on the German troops near Buvel, an expression of frustration after almost four years of trench warfare. Tanks appear on the battlefield in 1916. They are slow, clumsy and awkward, but definitely do leave their mark on the German soldiers' collective imagination and terrify them. This first use of automobiles and tanks heralds a new warfare that unfolds its full potential during the Second World War.

65 BRABANT, W., dir., op. cit., p. 85.

66 BIEF, DIRON, M., *Les premiers pas des blindés belges...*, in *Tank Museum News*, 1997, p. 7-22.

67 After the Great War he is promoted to the rank of general and takes on the name of 'van Strydonck de Buvel'. After the defeat in May 1940 he leaves for Great Britain, in the wake of the Parker government. He swears up the Belgian troops who also fled the country and who later on constitute the Piron Brigade, among others.



Minerva self-propelled gun, drawn by Alfred Bastien (Belgium, 1915) - Chinese ink on paper.  
© WH, RMA, CDoc, Brussels, n° 820975.

**MORS/MINERVA SELF-PROPELLED GUNS**

Courtesy of Lieutenant Henkart's experiments the Belgian army becomes a leader in the field of armoured gun vehicles. In 1914 it places an order for some thirty such pieces with the S.A.V.A. (Société anonyme pour la fabrication de voitures automobiles) and Minerva companies in Antwerp. After the German capture of the city on 10 October 1914 manufacture of the self-propelled guns is entrusted to Mors, a French company then headed by André Citroën. The cars are efficient to raid the Germans, but have no roof, leaving the crews exposed to enemy fire. Moreover, the front grinds to a standstill by the end of 1914 and the self-propelled guns are not suited to the new combat conditions that trench warfare

entails. They are nevertheless used for patrol operations, although the flooded West Flanders plains do not allow for easy movement. The cars prove useless in a war of attrition, but some of them nonetheless remain attached to the divisional cavalry, and a mechanised unit is established as well.

This embryo unit constitutes the base of the ACM Corps created in November 1914, probably upon a joint initiative by Baron Pierre de Caters and General Henri Cloutier, commander of the Belgian base in Calais. Some hundred volunteers are recruited, initially to prepare the country's rapid re-conquest. The immobilised front of course cancels that idea.



The Panzerbefehlswagen IV J displayed in the Battle of the Bulge gallery at Bastogne Barracks.  
© WH, Jerusalem Destarcklock.

**PANZERBEFEHLSWAGEN IV AUSFÜHRUNG J: A ONE-OFF SURVIVOR**

This extremely rare piece is the last Panzer IV J command vehicle in the world. It is put on display at Bastogne Barracks.

On 11 January 1934 the Heereswaffenamt, the Wehrmacht Armament Directorate, requests a backing for the future Panzerkampfwagen III. The tank has to provide fire support with a 7.5-mm low muzzle velocity gun. The vehicle must not weigh more than 24 tonnes (the load capacity of field bridges) and has to reach a road-speed of 35 km/h. After tests with various

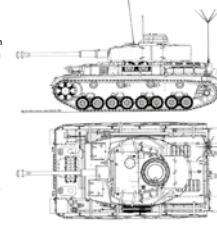
prototypes, Krupp's project is selected for serial production in 1935: the first PzKpfw IV A leaves the factory in October 1937.

The tank has modest dimensions (a length of 7.02 m - a width of 2.88 m - a height of 2.68 m), can carry five crewmembers and weighs 25 tonnes. Initially, the Panzer IV only has to support infantry. However, with combat reality closing in, crews regularly have to deal with enemy armoured vehicles. The short 75-mm gun cannot pierce a French tank at more than

100 metres and is therefore fitted with a more efficient barrel. The armoured, only 14.5 and 16 mm during the campaign in Poland, is quickly increased for the French campaign. The steel body is now 30 mm thick at the front and 20 mm on the sides. In 1941 the technical data mention armour protection of 20-30 mm for the flanks and 50-60 mm for the turret and front on the E and F versions. The F2 version is equipped with a long 75-mm gun in 1942, as is the G version.

The Panzer IV H's armouring is increased to 80 mm. The tank is powered by a 300-hp and 12-litre cylinder Maybach HL 120 TRM engine. In 1940 the Germans possess 250 such Rems, but 8,531 copies of various versions are built between 1943 and 1945, which turns the Panzer IV into the true linchpin of German armoured formations. It is also the only armoured vehicle fitted with a turret that can be mass-produced by the Nazi military industry. Heinz Guderian therefore insists on maintaining production, which slightly postpones the eventual but inevitable collapse of the Panzerdivisionen.

The Panzerkampfwagen IV Ausf. J is the last version of the Panzer IV medium tank to go into production before the end of the Second



Drawings: © Hilary Louis Doyle, 1993.

World War, and appears in June 1944. A total of 1,758 such tanks are assembled until March 1945, alongside 278 undercarriages for the Panzer IV/70(A) (a version without turret) and 142 others for the Brummbar assault gun (Brummbar could be translated as bad-tempered bear). It is an extremely simplified version of the Panzer IV, intended to absorb the terrible losses suffered on the Eastern front. During the summer of 1944 the Panzer IV loses much of its credentials as a main combat tank, and of the three



A Panzer IV Ausf. J with the 12. SS-Panzerdivision 'Hitlerjugend' near Rouen in the summer of 1944. © Bundesarchiv, Koblenz, n° 1011493-355-10.