words and pictures **Craig Moore**

The German Wasp

In need of artillery support, the German Army was supplied with the Wespe, a self-propelled gun praised for its reliability and mobility

The Musée des Blindés, (Museum of Armour) in Saumur, France is only a short train journey from Paris. It should be on every tank enthusiasts list of places to visit. It has the biggest collection of World War Two German Armour, including artillery self-propelled guns (SPG).

The Wespe was a German army artillery 10.5cm self-propelled gun based on the Panzer II light tank (Sd.Kfz.121) hull. Its full designation was 10.5cm Leichte Feldhaubitze 18/2 auf Fahrgestell Panzerkampfwagen II Selbstfahrlafette (Sd.Kfz. 124). This long name was abbreviated to 10.5cm LeFH 18/2 auf Fgst. PzKpfw II (Sf). To make things easier, it was given the nickname 'Wespe', German for wasp – a little thing with a big sting. The letter 'W' in Wespe is pronounced as a 'V', and the letter 'e' at the end of the word as 'a' (Vespa). This SPG could fire a 10.5cm fragmentation high explosive HE shells at enemy targets 13.25 km (8.23 miles) away.

The words 'Leichte Feldhaubitze' (LeFH) translate to light field howitzer. The letters 'SF' stands for 'Selbstfahrlafette' – self-propelled carriage. The term 'Fahrgestell Panzerkampfwagen II' translates to 'armoured combat vehicle chassis' or 'Panzer II tank chassis.'

The Panzer II light tank was used in the invasion of France in May 1940. It was unable to knock out many of the heavily armoured Allied tanks like the Matilda II or the French Char B1 bis. Its armour was thin and could be penetrated by the British 2pdr (40mm) and French 47mm SA 35 anti-tank gun. The Panzer II was withdrawn from frontline active service. The German weapons manufacturing company Alkett, design team, converted the obsolete Panzer II tank chassis into tank destroyers. The turret was removed, and a 75mm Pak 40 anti-tank gun was fitted, surrounded by an armoured open top superstructure. They were known as the Marder II (Sd.Kfz. 131). Later, captured Soviet 76.2mm anti-tank guns were fitted on top of Panzer II light tank chassis. They were called Marder II (Sd.Kfz. 132). This was a quick way of mounting a large gun onto a tracked vehicle that could keep up with the Panzer Divisions as they crossed rough, muddy open countryside of Poland and Russia during Operation Barbarossa, the invasion of the Soviet Union, in June 1941. At that time, a solution had not been found on how to fit a 75mm anti-tank gun into a tank turret.

The advancing German Army also needed artillery support. As the rains of autumn and then the snows of winter began to take hold of the battlefield, towing artillery guns became problematic. Horse drawn artillery guns and towed artillery guns soon got stuck in the mud or snow. Tracked self-propelled artillery guns could cross this testing terrain and keep up with the troops and tanks. The army wanted artillery self-propelled guns. German industry came up with several different solutions, one of which was the Wespe.

Weapons manufacture Alkett's engineers choose the Panzer II Ausf.F light tank chassis for the conversion. They were conscious of the substantial recoil that the tank chassis would have to absorb during the firing of this large, powerful 10.5cm artillery gun. The original Panzer II tank was only armed with a 20mm KwK 30/38 gun. Alkett's designers relocated the engine from the rear of the tank chassis to the middle of the hull. Air intakes were fitted on either side. This allowed the fighting compartment to be shifted to the rear. This enabled the gun crew more room to work the gun. The transmission system was kept in its original location next to the driver on his right.

Unlike other artillery self-propelled conversions rear 'trails and spades' were not fitted to the rear of the vehicle. These legs were usually lowered at the back of the SPG and hammered into the ground to provide a better anchorage when the

gun was fired. The Alkett designers felt this was not necessary on the Wespe. The tank hull was lengthened at the rear to make room for the Rheinmetall-Borsig. 10.5cm leFH 18/2 L/28 light field howitzer. It was mounted in the centre of the open topped armoured superstructure over the engine and behind a gun shield. The gun could be traversed 17 degrees left and right. It could be depressed -5 degrees and elevated +42 degrees. The superstructure that was built around the gun fighting compartment was only 10mm (0.39 inch) thick. Like other self-propelled guns of this period it had a low rear and open top configuration. It would only protect the crew from small arms fire and fragmentation high explosive shell shrapnel. It would not protect them from an armour-piercing (AP) round. This vehicle was not meant to be on the front line engaging enemy tanks. It was a support weapon that fired over the heads of its own troops and tanks from behind the front line. The driver's compartment was at the front of the vehicle and was fully enclosed in armour.

During inclement weather and scorching summer days, a tarpaulin could be secured over the open top to give the crew some protection from rain, snow and some shade from the scorching sun. The Wespe artillery self-propelled gun was powered by a Maybach HL 62 TRM 140PS six-cylinder petrol 138hp (103 kW) engine fed by two 140 litre fuel tanks. It had an operational range on the road of around 200km (120 miles) before it needed refuelling. The ZFA SSG 46 Aphon gearbox provided one reverse gear and six forward gears.

The Panzer II light tank weighted 8.8 tons, but the weight of the Wespe artillery SPG rose to 10.82 tons. This put additional stress on the engine, but it seemed to cope with the weight increase as it still had a reported maximum road speed of 40km/h (24.85mph).

Additional truncated cone springs were added to the first and second road wheels on both sides of the chassis to reinforce the suspension to help the vehicle absorb the gun's recoil and additional weight. The amount of track return rollers each side was reduced from four to three. The frontal glacis armoured plate on the tank chassis was redesigned. The driver was given an armoured compartment on the left side of the tank that protruded through the slopping front armour. A tubular bullet deflector was welded to the armour in front of the driver's cabin and vision slot. The driver could only see to his left or right through small slits in the armour of his cabin. The shallow angle of the front armour gave greater protection by increasing the thickness of metal any

OPPOSITE: ***The Wespe Artillery SPG was built on a Panzer II tank chassis***
ABOVE & BELOW: ***Captured 10.5cm Wespe Artillery Self-propelled guns were examined by the British School of Tank Technology. This model is missing its rear exhaust silencer box below the rear hatch and has the gun lock in place.*** *STT*

The armour on the rear of this Wespe was a lot thinner. It ranged from 8.7mm to 9.2mm

'It was given the nickname 'Wespe', German for wasp – a little thing with a big sting'

The armoured louvred grills around the Wespe varied in thickness from 8.7mm to 9.5mm

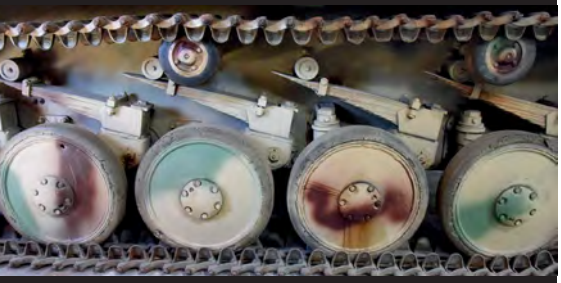
The driver was given an armoured compartment on the left side of the tank that protruded through the slopping front armour

The thickness of the superstructure armour plate on the right side of this Wespe varied between 10cm to 10.4cm

The tubes above and below the gun barrel helped reduce the recoil. The gun shield armour on this Wespe varied in thickness from 10.8mm to 11.6mm

'Battlefield reports recorded that the gun crews praised its reliability and mobility'

The upper superstructure that protected the crew from small arms fire and shrapnel was supposed to be constructed from 10mm thick armour plate, but the left side plate on this Wespe was found to vary from 11mm to 11.4mm thick



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The 10.5cm leFH 18 gun used two-part ammunition. The high explosive HE projectile would be loaded first and then the cartridge propellant case. Depending on the range of the target different sized bags of propellant were inserted into the cartridge. More bags were used for longer range targets

A column of German 10.5cm Wespe self-propelled guns covered in whitewash, passing through a Russian village. *AUSTRALIAN WAR MEMORIAL 044595*

incoming round would have to penetrate. It also provided a higher chance of a ricochet.

The driver climbed into his position through a two-piece hatch which opened forward and back over his seat. The engine in the middle of the tank chassis separated the driver from the gun crew fighting compartment. The driver could access the engine compartment via a sliding door behind his seat. There was a circular service hatch in the front armour on the right side of the vehicle that could be unscrewed to allow access to the transmission and steering components. Alkett's prototype Wespe was produced at their Berlin-Borsigwalde factory. On July 14, 1942, after the prototype, successfully completed trials, the Panzer-Kommission recommended that the Wespe was fit for purpose. On 25 July, 1942 Hitler confirmed an order for the production of 1,000 10.5cm leFH 18/2 (Sf) auf Fahrgestell Panzerkampfwagen II 'Wespe' (Sd.Kfz.124).

Two factories in Poland were involved in building the Wespe artillery SPG: Ursus – Fahrzeug und Motorenbau (FAMO) of Breslau (Wroclaw) and Vereinigte Maschinenwerke/Famo Warschau in Warsaw. FAMO had previously been involved in building the Panzer II Ausf.F light tank, the vehicle that would provide the chassis for the Wespe. The modification of the 10.5cm leFH 18 light field gun to enable it to be mounted on top of the extended Panzer II tank chassis was carried out by the gun's manufacturer, Rheinmetall-Borsig of Düsseldorf. Records show that 676 were manufactured. The start of production was delayed until February 1943. It stopped in June 1944, when the Soviet Army took control of the area.

In March 1943 Eastern Front Panzer-Artillerie-Abteilungen (armoured artillery battalions) started to be equipped with the 10.5cm Wespe SPGs. They first saw action, alongside the 15cm Hummel artillery SPGs during Operation Zitadelle, the battle of Kursk. Later they were issued to all three Eastern Front Army Groups. The Wespe SPGs left the factory painted in a dunkelgelb dark yellow base colour. When they arrived near the front line, the gun crews or field maintenance units painted them with a variety of different camouflage schemes to help the vehicles merge with the local vegetation. Olivegrun (green) and Rotbrun (red-brown) paint were applied using an air-brush, but if this was not available, it was painted on the sides of the Wespe SPG using a paint brush, sponge, cloth or broom. Some regiments used Panzergrau (tank grey) paint in their camouflage schemes. During the winter, whitewash was painted over the vehicles, so they were harder to see in snowy conditions.

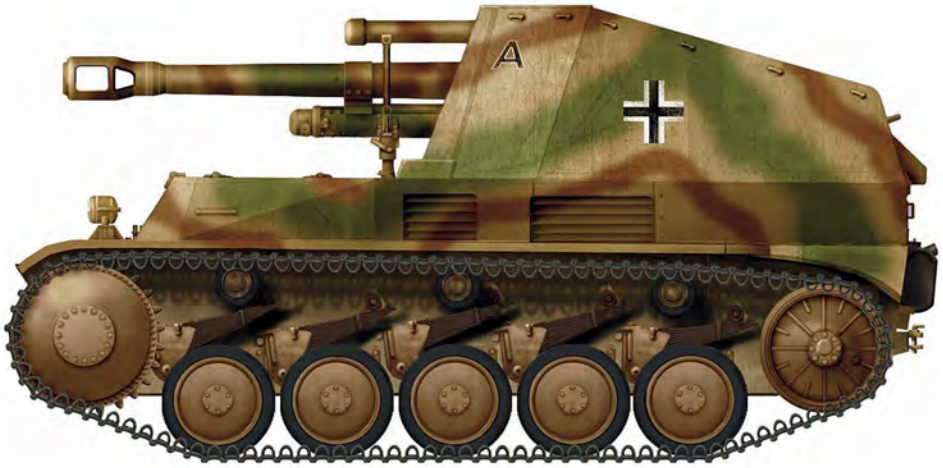
Battlefield reports were favourable. This made Hitler order all other Panzer II tank hull-based conversions to be stopped. He insisted that all efforts should go towards building as many Wespe artillery self-propelled guns as possible. Wespe SPGs were used in Italy to provide artillery bombardment of the Allied forces defending the Caesar and Gustav lines. They provided support for the German troops fighting the allies in the Anzio pocket. By the summer of 1944, some Wespe-equipped Panzer-Artillerie-Abteilungen were sent to Normandy as a strengthening measure to deal with the expected Allied invasion.

In December 1944, Wespe SPGs were in action during the Battle of the Bulge, Ardennes Offensive. The Panzer Artillery Regiment of the Heer Panzer Division had three Abteilungen (Battalions). The second and third battalion comprised of towed 10.5cm, 15cm and 17cm howitzers but the first battalion was equipped with artillery self-propelled guns: twelve Wespe and six Hummel

This 10.5cm leichte Feldhaubitze 18 (10.5cm leFH 18) light field howitzer is in the Armageddon Paint Ball Museum. It was this type of weapon that was mounted in the Wespe. *STT*

0.5cm leFH 18/2 (Sf) auf Fahrgestell Panzerkampfwagen II 'Wespe' (Sd.Kfz.124) artillery self-propelled gun from the 1st Abteilung, Panzerartillerie regiment, 8th Panzer-Division, Ukraine, summer 1944. *DAVID BOCQUELET*

10.5cm leFH 18/2 (Sf) auf Fahrgestell Panzerkampfwagen II 'Wespe' (Sd.Kfz.124) artillery self-propelled gun from an unidentified unit, Italy, summer 1944. *DAVID BOCQUELET*



10.5cm leFH 18/2 (Sf) auf Fahrgestell Panzerkampfwagen II 'Wespe' (Sd.Kfz.124) artillery self-propelled gun from the 146th Panzer Artillerie Regiment, PanzerLehr Regiment, Normandy, summer 1944. *DAVID BOCQUELET*

artillery SPGs. They included:

- ***1.Abteilung (1st Battalion)***
- ***Stabskompanie (HQ company)***
- ***1.Batterie (6x Wespe 10.5cm Artillery SPG)***
- ***2.Batterie (6x Wespe 10.5cm Artillery SPG)***
- ***3.Batterie (6x Hummel 15cm Artillery SPG)***

Each battery typically had two Panzerbeobachtungswagen armoured artillery observation vehicles. These were often based on tanks with the main gun removed to provide additional space for maps and radios. A dummy gun was welded in its place so that the enemy would think it was a typical gun tank. Panzer II to V tanks were used as Panzerbeobachtungswagens. Thirty-six Panzer divisions, including SS and select units, received Wespe SPGs. They saw active service on all battle fronts after 1943. By March 1945, 307 Wespe SPGs, less than half the original production number, were still in service. Battlefield reports recorded that the gun crews praised its reliability and mobility. What they did not like was the lack of protection. They complained that the armour was too thin and the superstructure was too tall. Its high profile made them an easy target to be spotted and then fired upon. There was inadequate protection at the rear of the superstructure. The loaders working at the back end of the vehicle were the most exposed to enemy fire. Another complaint was that the fighting compartment was too cramped.

SPECIFICATIONS

Crew 5 (driver, commander, gunner, two loaders)
Propulsion Maybach HL 62 TR 6 cylinder, water-cooled 6.23 litre 140hp gasoline/petrol engine
Speed (on/off road) 40/20km/h (25/12.5mph)
Maximum range (on/off road): 220/140km (135/85 miles)
Main armament 10.5cm leFH 18/2 L/26 (early) or L/28 (late)
Secondary armament 7.92mm (0.31in) MG 34 or MG 40
Main gun elevation - 5 to + 42 degrees
Upper hull armour 15mm (0.59in)
Lower hull armour 18mm (0.70in)
Side hull armour 15mm (0.59in)
Superstructure armour 10mm (0.39in)
Production Total 676

Dimensions (overall)
Length 4.81m (15ft 9in)
Width 2.28m (7ft 6in)
Height 2.30m (7ft 7in)
Total weight, battle ready 11 tonnes (10.82 tons)

'Designers relocated the engine from the rear of the tank chassis to the middle of the hull'

Further Reading

You can read about this and the other 19 Artillery SPGs used by the Germans during World War Two in Craig Moore's new book "German Self-propelled Artillery Guns of the Second World War." available on Amazon.co.uk.