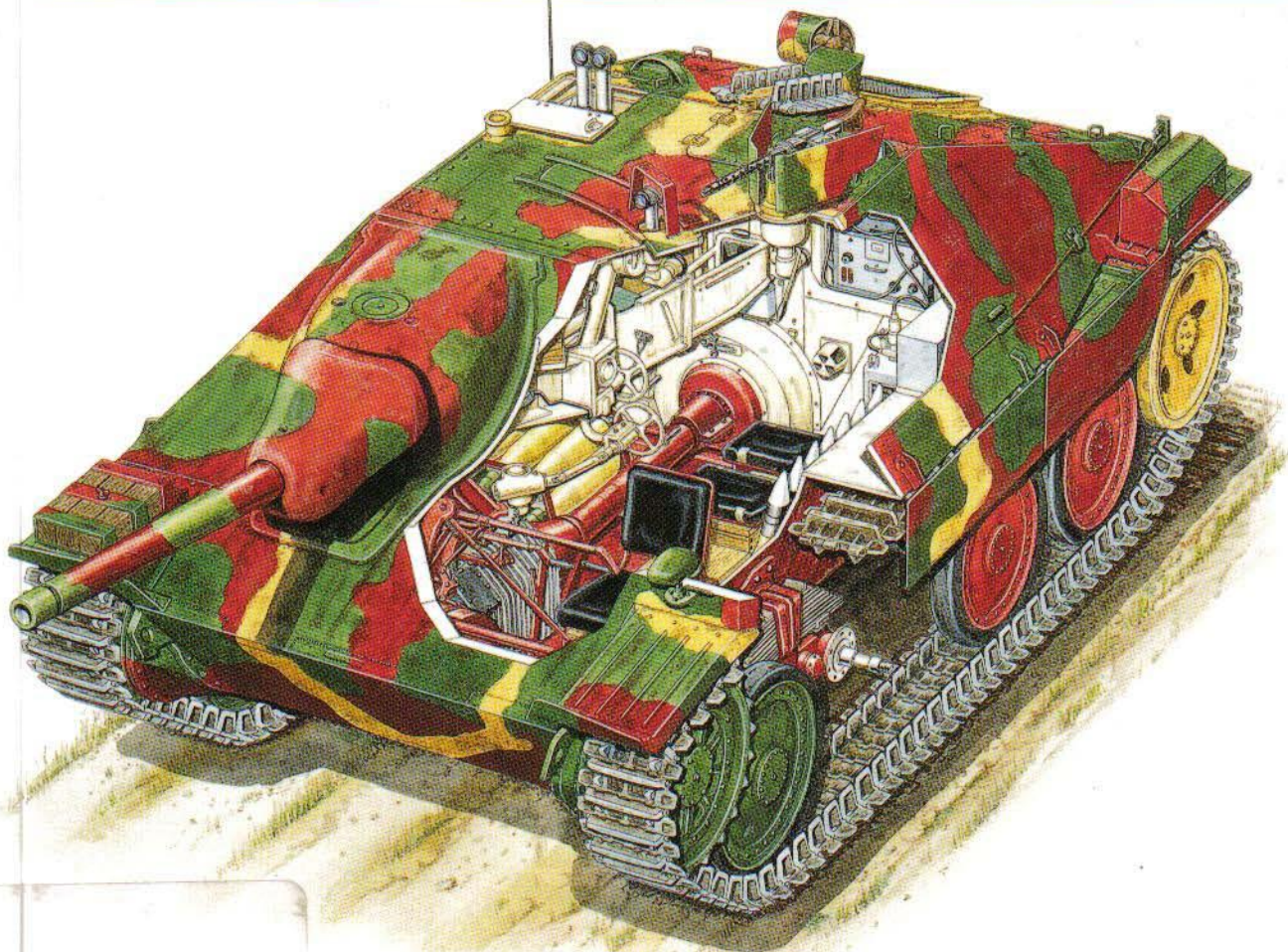


# JAGDPANZER 38

## 'HETZER'

1944-1945



HILARY DOYLE TOM JENTZ MIKE BADROCKE

NEW VANGUARD: 36

# JAGDPANZER 38 'HETZER' 1944-1945



WRITTEN BY HILARY DOYLE AND TOM JENTZ

COLOUR ARTWORK BY MIKE BADROCKE

**OSPREY**  
MILITARY

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For a catalogue of all books published by Osprey Military and Aviation please  
contact:

The Marketing Manager, Osprey Direct UK, PO Box 140,  
Wellingborough, Northants, NN8 4ZA, United Kingdom.  
Tel. +44 (0)1933 443863, Fax +44 (0)1933 443849.  
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#### Editor's Note

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Hilary Louis Doyle

TITLE PAGE Jagdpanzer 38, identification number '132',  
travels through a Romanian town. This Jagdpanzer 38 was  
built in June/July 1944 by BMM in Prague. (BA)

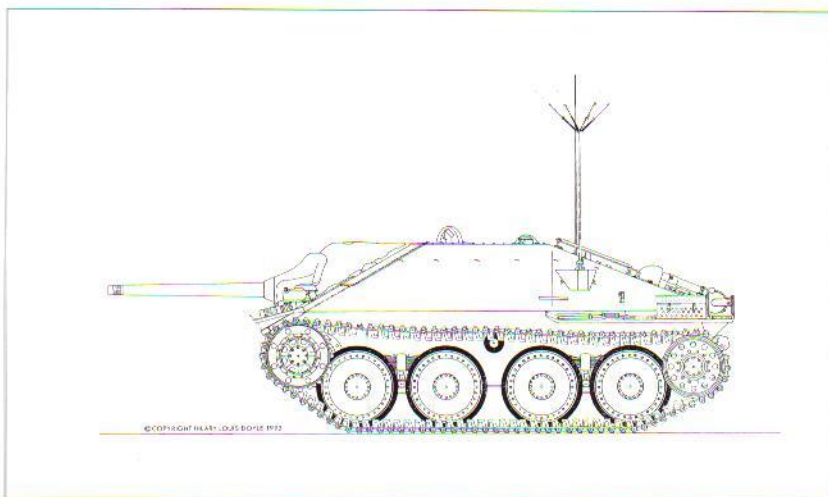
# JAGDPANZER 38

## 'HETZER' 1944-1945

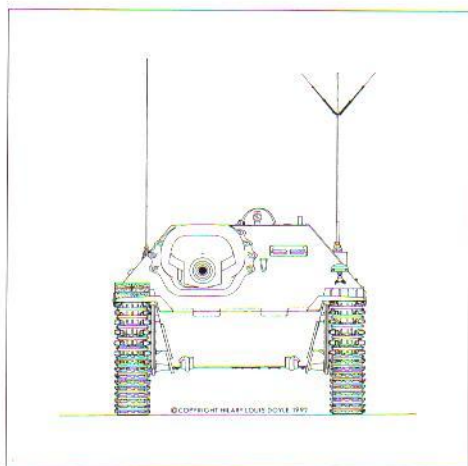
### INTRODUCTION

The Jagdpanzer 38 is one of the best known German armoured fighting vehicles from World War II. It is liked by all for its sleek appearance created by well sloped armour. Many experts in post-war armour hold the opinion that this tank destroyer was just the answer to Germany's problem of dealing with the numerically superior American M4 Medium tank (known to the British Army as the Sherman) and the Russian T 34. When assessing the combat capabilities of the Jagdpanzer 38, factors other than its well sloped frontal armour and lethal

long-range gun need to be considered. Many of these factors were found over a period of 30 years by the authors digging through original records from design and production firms, the Heeres Waffenamt (army ordnance department), the office of the Generalinspekteur der Panzertruppen (General Guderian) and operational reports from units. This book is based solely on the contents of these original documents. The research is supported by observations made by the authors in climbing over, under, around and through the Jagdpanzer 38 that still exist in the West. With the many misinterpretations in published material and inaccuracies of reports prepared by Allied intelligence units during the war and immediately afterwards, these unreliable sources have not been used in assembling this history. The few surviving operational reports are used to relate the tactical



1:76 scale front and side views of the first Sturmgeschütz 38(t), Fgst.Nr.321001. This vehicle was fitted out as a Befehlspanzer (command vehicle) with the extra antenna on the left side for the long-range radio. (Hilary Louis Doyle)



successes, failures and problems encountered by units at the front. Written during the war by men who actually fought in the Jagdpanzer 38, these reports are invaluable as a reliable source of information and are far superior to any opinions voiced since.

In reality this armoured fighting vehicle was designed as a classical Sturmgeschütz (assault gun) with a gun mounted forward in the chassis. Therefore the General der Artillerie laid claim to this assault gun for his branch of the service and called it the Sturmgeschütz neuer Art (new model) or Sturmgeschütz 38(t). However, General Guderian, as General Inspekteur der Panzertruppen, did not have control of Sturmgeschütz and wanted the vehicle to be employed as a tank destroyer. Therefore his command referred to the new armoured vehicle as the 'leichte Panzerjäger auf 38(t)' (light tank destroyer on 38t chassis).

In the end General Guderian won out, and the official designation applied to the Jagdpanzer 38 was Panzerjäger 38 fuer 7.5cm Pak 39 (L/48) (Sd.Kfz.138/2). This name was officially changed to Jagdpanzer 38 – Panzerjäger 38 (7.5cm Pak 39 (L/48)) (Sd.Kfz.138/2) on 11 September 1944.

The suggestive name 'Hetzer' was assigned to the E-10 project (an advanced low silhouette design with a powerful 400 horsepower engine to enable the tank destroyer to achieve high speeds up to 70 kilometres per hour) – not to the slow, underpowered, makeshift Jagdpanzer 38. It is not clear how the name 'Hetzer' became associated with the Jagdpanzer 38. It was mentioned at the conceptual design meeting between Wa Prüf 6 and BMM, but apparently the Czechs did not understand that the Hetzer was a competitor's design and not the name of their own product. When Heeres Panzerjäger-Abteilung 743 first arrived near Warsaw on 31 July 1944, they initially reported having 28 Hetzer, with an additional 14 Hetzer expected to arrive with 3.Kompanie on 3 August. However, starting with their strength report on 3 August, the unit began to refer to them correctly as le.Pz.Jg.38t. In his briefing papers for Hitler dated 4 December 1944, General Guderian



Jagdpanzer 38, identification number '132', travels through a Romanian town. This Jagdpanzer 38 was built in June/July 1944 by BMM in Prague. (BA)

incorrectly explained that the name Hetzer came from the troops as their nickname for the Jagdpanzer 38.

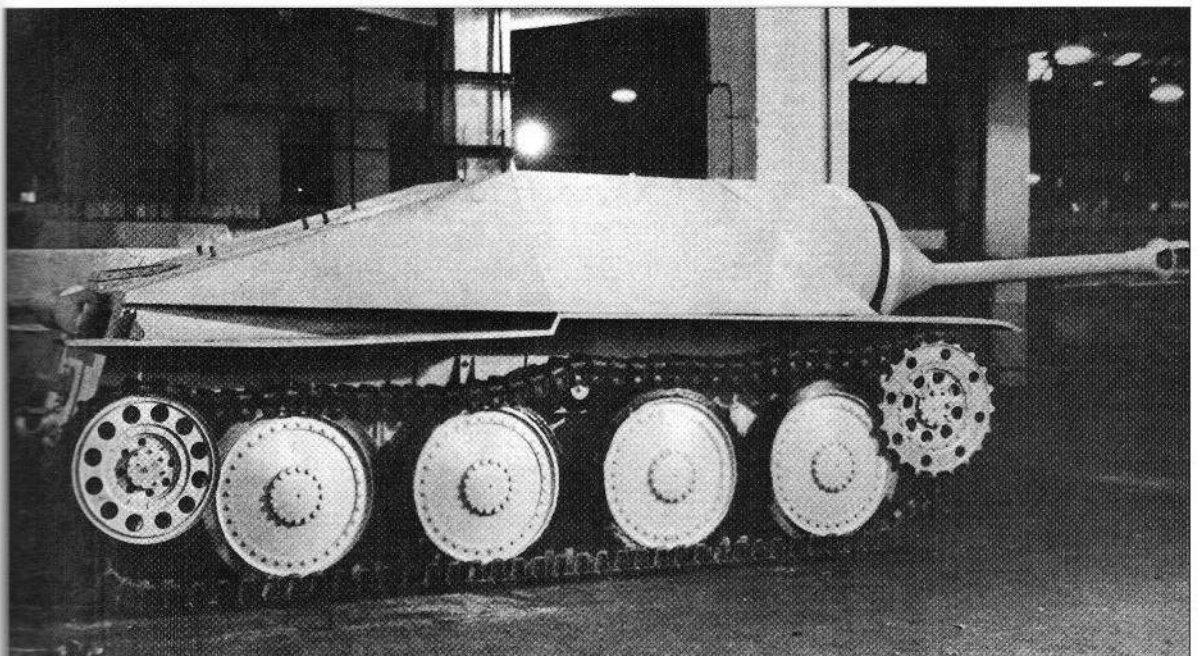
## DESIGN AND DEVELOPMENT

Initially no-one intended to design and produce a Sturmgeschütz on the Pz.Kpfw.38t chassis, but new capacity had to be rapidly acquired after Sturmgeschütz production at Alkett was seriously hampered when 1,424 tons of high-explosive and incendiary bombs were dropped on Berlin on 26 November 1943. As a result, the Oberkommando des Heeres (OKH – army high command) investigated the possibility of producing the Sturmgeschütz at Boemisch-Mährische Maschinenfabrik (BMM). They reported to Hitler on 6 December 1943 that the BMM factory did not have the lifting capacity and space to assemble the 24-ton Sturmgeschütz. Hitler then agreed with a proposal to totally exploit the production capacity at the BMM factory for assembling a 'leichte Panzerjäger'. This proposed 13-ton vehicle was to have an exceptional speed of 55–60 kilometres per hour to make up for the thinner (60mm instead of 80mm) but well sloped frontal armour. Plates on the sides were only to be thick enough to provide protection against fragments from artillery shell bursts.

On 17 December 1943 the design drawings were presented for the 13-ton Sturmgeschütz to be constructed from components originally designed for the Panzerkampfwagen 38(t) alter Art (original model) and Panzerkampfwagen 38(t) neuer Art (a new design for a reconnaissance vehicle). Hitler agreed emphatically that this was the best use for the BMM factory.

The design advanced at an extraordinary pace. A wooden model was completed by 24 January 1944 and presented to the Heeres Waffenamt two days later. This already revealed the final low-silhouette form of the

**The first wooden mock-up of the Sturmgeschütz 38(t) was ready in January 1944. The fighting compartment was shorter than on the production series. Note the longer-sloped motor cover. The front armour plate was cut vertically at the sides above the track guards. A conical mantle and a muzzle brake were planned for the 7.5cm Pak 39 at this time. (BMM)**



Jagdpanzer 38. A decision was made to mount the same 7.5cm Pak 39 that had been selected as the main armament for the Jagdpanzer IV. Oberst Thomale immediately ordered that three Panzerjäger 38(t) be completed in March 1944 for troop trials.

The Jagdpanzer 38 design was rushed into series production in the record time of less than four months. There was no opportunity to complete a few prototypes for pre-production series testing. Nor was there any need for prototypes, since all the automotive components had already been tested and proven in the Pz.Kpfw.38(t) series.

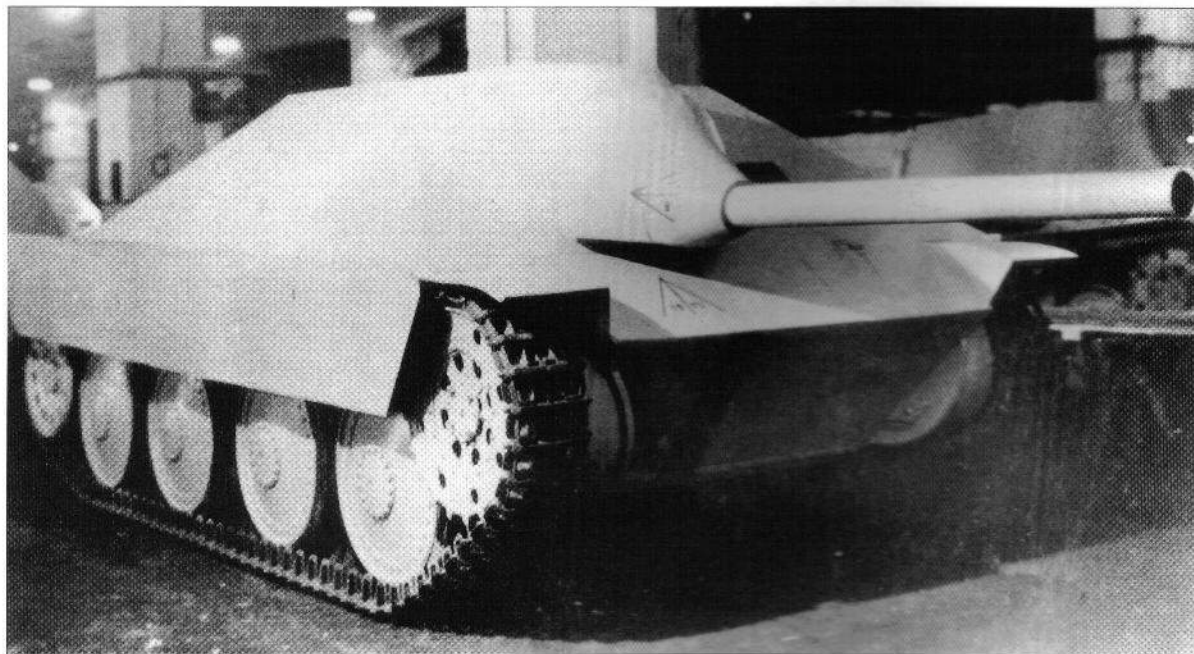
## PRODUCTION HISTORY

On 28 January 1944 Hitler stressed the importance of quickly starting and increasing production of the 'leichte Sturmgeschütz auf 38(t)' as the most urgent task for the army in 1944. By 18 January 1944 the decision had already been made to produce 1,000 'leichte Panzerjäger 38(t)s' before the ink was dry on the conceptual drawings. A very aggressive production schedule was set, calling for a rapid increase in the monthly production rate to reach a final goal of 1,000 per month by March 1945 as follows:

FACTORY	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR
BMM	20	50	100	200	250	300	350	400	400	400	450	500
Škoda	0	0	0	10	50	100	150	200	300	400	450	500

These were quite considerable targets since no single factory had produced over 300 heavy armoured vehicles per month by then. BMM had only achieved a maximum monthly output of 151 and Škoda had

The second iteration of the wooden mock-up had a full width front plate and the sides in one piece to simplify production. The fighting compartment was extended rearwards. The hull sides were protected by Schürzen (steel apron plates). The muzzle brake was deleted from the 7.5cm Pak 39. (BMM)



not produced a single fully tracked armoured vehicle other than a few prototypes for Germany.

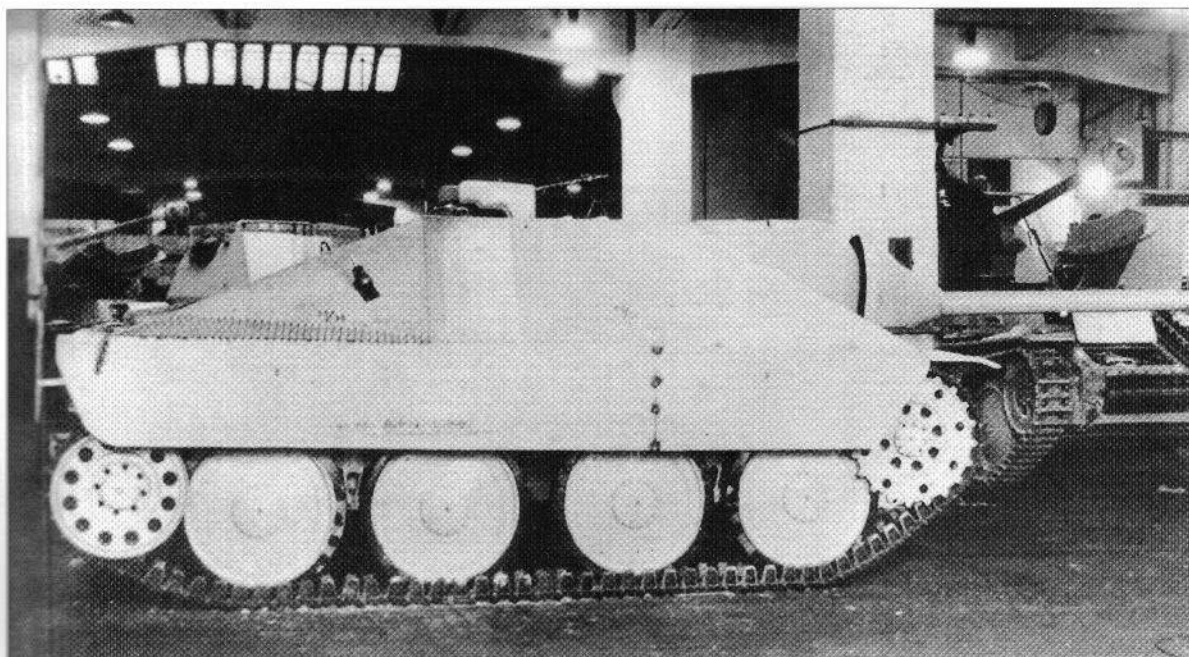
BMM's contract was increased to 2,000 in Fgst.Nr.Serie 321001-323000. Bergepanzerwagen 38 and Jagdpanzer 38 start were also included in this Fgst.Nr.Serie. Škoda was awarded contracts for 2,000 to be identified with Fgst.Nr.Serie 323001-325000. After completion of their first 2,000, those completed by BMM were identified by the Fgst.Nr.Serie starting with 325001.

As requested, the first three leichte Panzerjäger 38 vehicles were completed on schedule at BMM in March 1944 and accepted by the Heeres Waffenamts inspector in April. These were followed by 20 in April that were demonstrated for Hitler on 20 April 1944. After the demonstration they were sent directly back to the factory since they were not yet completely serviceable. Some armoured components were still missing. BMM continued to meet their production goals of 50 in May and 100 in June but fell short in July, blaming delayed delivery of gun mounts. Even though the factory was claiming that these Jagdpanzer were complete and the Waffenamts inspectors were accepting them, there were numerous minor deficiencies, including: leaking gaskets, air filtration, carburation, the type of spark plugs, the governor and the layout of the connecting lines between the two fuel tanks.

The Waffenamts reduced production goals for August to December to allow the factories more time to get the job done right and deliver operational vehicles. Škoda completed their first ten as scheduled in July. After that they had a tough time rapidly increasing production because of their inexperienced workforce.

Four firms had been given contracts to deliver armoured components for the Jagdpanzer 38, including Škoda in Pilsen, BMM, Linke Hoffman in Breslau and Poldihutte in Komatou. Two air raids on the Škoda plant in October in which a total of 417 tons of bombs were dropped, was the

**The final iteration of the wooden mock-up already has the normal radio antenna and the long-range antenna of a Befehlspanzerwagen (command vehicle) in place. Close-in protection was to be provided by the Rundumfeuer MG 34 (remote-controlled machine gun), which in turn necessitated a guard for the main gun periscope sight. The mock-up for the driver visor has been mounted. The grill protecting the air intakes was not installed in the production series. (BMM)**





excuse given by the Waffenamt for not meeting the October production goal. Over 400 Jagdpanzer 38 were produced in November but production dropped again in December, partly as a result of three air raids on the Škoda plant in which 375 tons of high-explosive bombs were delivered.

Monthly production peaked at 434 in January 1945, and Škoda was never able to reach the magic figure of 500 per month requested by the Waffenamt. After 1 February 1945 only 2,100 additional Jagdpanzer 38(t)s were ordered to be completed. In June 1945 production was shifted over to the Jagdpanzer 38D – an even simpler design with a diesel engine.

Production declined slightly in February, partly due to an air raid on Prague, and continued decline in March and April was caused by electrical power cuts and shortages in parts as well as the first heavy air raid on BMM, in which 378 tons of high-explosive bombs were dropped on 25 March.

To counter the effects of bombing, assembly was shifted to additional facilities. As reported from Milowitz on 17 April 1945:

'After the bombing raid final assembly of a total of 48 Jagdpanzer 38 was shifted to Milowitz from the BMM Werk Prag/Lyben. Of these only 9 Jagdpanzer 38 and 2 Bergepanzer 38 have been completed and accepted by the inspectors. Causes for the poor performance were relocating the machinery for machining steel castings and secondly getting the 85 Czech workers transferred and established in Milowitz. Once they get started on 18 April, by working 12 to 14 hour shifts, the remaining 39 vehicles should be completed by 24 April. Work at BMM Werk Prag/Lyben has slowed to where only 10 vehicles are expected by 24 April. In addition, about 15 Jagdpanzer 38 should be completed at another dispersion assembly plant in Schlan for a total of 62 from the Prag area. About 50 or 60 are expected from Škoda in Pilsen by 24 April which only delivered 24 by 14 April 1945. The largest threat to continued

**1 April 1944, the roll-out of the first Sturmgeschütz 38(t) at BMM in Prague. This vehicle was equipped as a Befehlspanzerwagen (command vehicle) with an additional antenna for the long-range radio set. The remote-controlled machine gun was not fitted. (BMM)**



production is the lack of 7.5cm Pak 39 [which were assembled at plants in Germany].<sup>7</sup>

A further report dated 29 April 1945 revealed that since 15 April 1945 a total of 103 Jagdpanzer 38 had been issued to units and a further 20 were expected by the end of the month. Plans for May were not certain because there were only 15 Pak 39 available, some without sights or traversing gear. Permission was requested to remove the sights and traversing gear from eight Jagdpanzer 38 starr located at the school in Milowitz in order to complete additional Jagdpanzer 38. BMM was to attempt to install a 7.5cm StuK 40 in a Jagdpanzer 38. This trial was to be completed by about mid-May, and since 75 StuK 40 were available (assembled by Škoda in Pilsen), it could result in a total of 90 Jagdpanzer 38 being completed in May.

Škoda had also been heavily hit, when over 500 tons of bombs were delivered in an air raid on 24 April 1945. A few additional Jagdpanzer 38 were completed in the first days of May, but records have not survived to reveal the actual numbers. Still, it was a remarkable record that over 2,800 Jagdpanzer 38 were produced during the last year of the war.

**TABLE 1: JAGDPANZER 38 PRODUCTION**

MONTH	PLANNED Note 1	ACCEPTED* BY WaA	Produced by BMM*	Produced by SKODA
<b>1944</b>				
Mar	0	0	3	0
Apr	20	23	20	0
May	50	50	50	0
Jun	100	100	100	0
Jul	175	100	100	10
Aug	175	171	150	20
Sept	250	124	190	30
Oct	330	290	133	57
Nov	350	403	298	89
Dec	380	327	223	104
<b>1945</b>				
Jan	430	434	289	145
Feb	350	398	273	125
Mar	350	301	148	153
Apr/May	250	?	70	47
<b>Total:</b>			<b>2047+</b>	<b>780+</b>

\* includes Bergepanzerwagen 38 and Jagdpanzer 38 starr from BMM

Note 1: The numbers in this column represent the planned production goals for that month established by the Waffenamt the previous month.

## OPERATIONAL HISTORY

### DESCRIPTION

The Jagdpanzer 38 was designed to present a very small target, with a height of only 1.845m (2.1m including the machine gun armour guard) and an overall width of 2.526m (2.63m including the side skirts). It was also a relatively short armoured vehicle with a chassis length of 4.766m (6.27m including the gun overhang). The firing height of the gun was only 1.402m above the ground.



**Right front view of the third Sturmgeschütz 38(t). The Fgst.Nr.321003 is chalked on the nose. These first three had the external armour mantle over the Kugellafette (armoured ball mount for the 7.5cm Pak 39) attached to the front armour plate with three external bolts on the right side and four on the left. The rams-horn towing hooks were bolted to the lower front plate and the final drive mounts were skeleton style. (BMM)**

All armour surfaces were well sloped. The frontal upper 60mm thick plate was 60 degrees from the vertical and the lower 60mm plate at 40 degrees. Frontal armour consisted of rolled plates welded together and interlocked to increase strength. These 60mm thick plates were produced in accordance with specification E22 and hardened to 265–309 Brinell. The 20mm sides and rear were made out of low alloy SM (Siemens-Marteneit) steel with a hardness of 220 to 265 Brinell. The upper side plates were set at an angle of 40 degrees, lower side plates at 15 degrees, and tail plate at 15 degrees. The roof and rear deck were made from 8mm thick rolled plates and the belly from 10mm thick plate.

The 7.5cm Pak 39 was secured in a mount supported by the upper hull plate. Mounting the gun well to the right of centre resulted in a very limited traverse – only 5 degrees to the left and 11 degrees to the right instead of the 15 degrees to both the right and left called for in the original specification. This offset gun mount also resulted in the right side suspension bearing 55 kilograms more than the left side.

<sup>1</sup>Footnote: The Brinell hardness test was used by most countries during World War II as a standard method of measuring the hardness of armour plate to indicate its resistance to penetration. There was no ideal hardness value for all thicknesses of armour plate – generally hardness was decreased as the armour thickness was increased; too hard and the plate was brittle and prone to shatter when struck by an armour piercing projectile. British and American armour usually had a lower hardness value than the same thickness of German armour. British and Americans did not want their armour to shatter when penetrated, but this resulted in armour that could be penetrated at a shorter range.

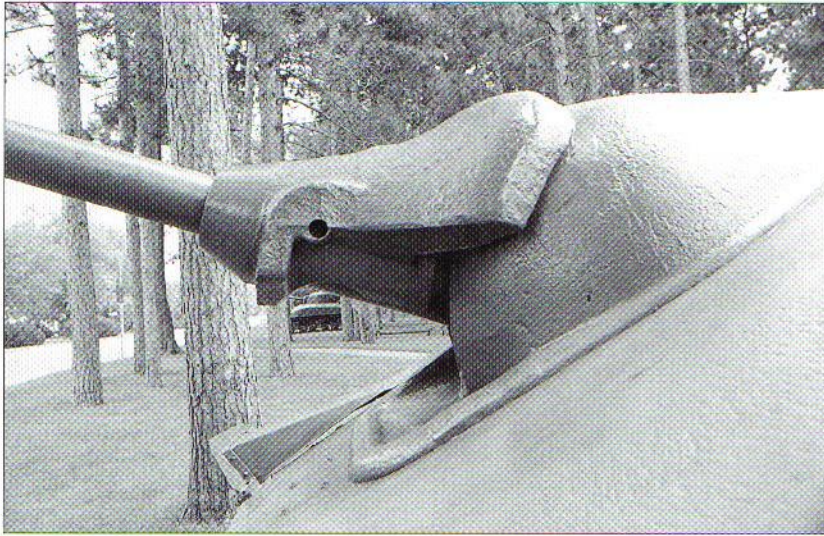


**Overhead view of Sturmgeschütz 38(t) Fgst.Nr.321003 under test. The remote-controlled machine gun has longer sides on the armour shield (similar to those used on the Sturmgeschütz Ausf. G). Note the periscope mounted behind the SF 14Z scissors periscope. The machine pistol port to the right of the driver's visor is just visible. (BMM)**

Secondary armament consisted of a Rundumsfeuer machine gun which was mounted on the roof and could be aimed and fired by the loader from inside using a sighting periscope (3x magnification with 8 degree field of view) and a trigger on the right handlebar. However, the machine gun was not belt fed and the loader had to open his hatch in order to replace the magazines. There was a gun shield fitted to the Rundumsfeuer mount to protect the loader but there was a gap at its base and its 'wings' were shortened to clear the main gun sight periscope guard.

Crew space was very cramped due to the narrow hull width. The driver, gunner and loader/radio operator were all positioned in a row along the left side. Their only means of escape was a hatch at the rear over the loader's position. Since the 7.5cm Pak 39 was originally intended to be mounted in the centre of a vehicle, all controls and safety switches were mounted on the right side, where the loader should have been positioned. However, due to the narrow hull, the 7.5cm Pak 39 was mounted in the Jagdpanzer 38 as far to the right as possible. Therefore, the loader had to load the gun from the wrong side, reach across the gun to switch off the safety, and reach under or across the recoil path of the gun to retrieve most of the stowed ammunition. The commander, in a niche at the right rear behind the gun recoil guard, was cut off from direct contact with the rest of the crew.

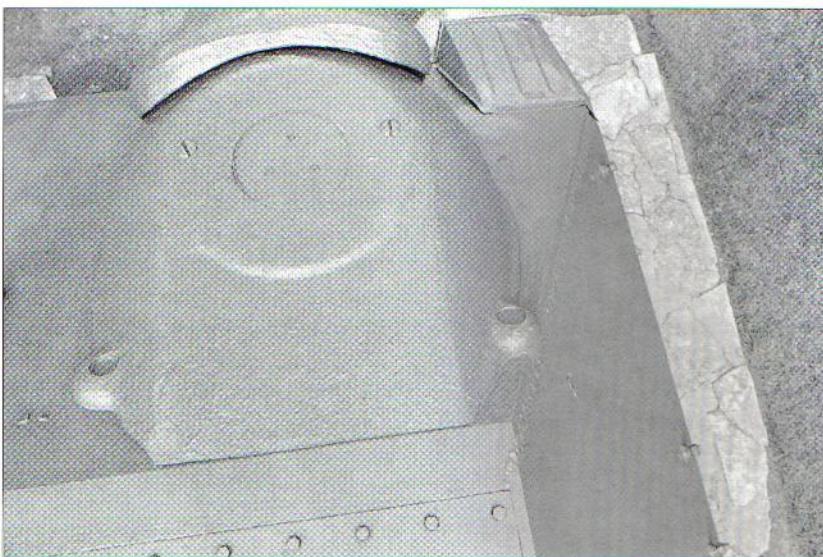
Vision devices were very limited, with twin periscopes for the driver, the main gun periscopic sight Sfl.Z.F.1a for the gunner, the periscopic sight for the machine gun and a fixed periscope at 9 o'clock for the loader, and an SF14Z scissors periscope for the commander. With the hatches buttoned up, the crew inside the Jagdpanzer 38 were virtually blind on the right side.



This Jagdpanzer 38 on display at the Canadian Tank Museum at Camp Borden in Ontario is Fgst. Nr. 321042. It was built by BMM in May 1944. This photograph shows details of the gun mantle. Many of the initial Jagdpanzer 38 were delivered to technical and training facilities. (HLD)

Power was provided by a six-cylinder, 7,754 cubic centimetre petrol engine rated at 150 metric horse power at 2,600rpm. A semi-automatic 5-speed transmission transferred power through the Wilson clutch and brake steering gears to the final drives. The suspension consisted of the normal drive sprocket and idler from the Pz.Kpfw.38(t) series, but had four larger diameter roadwheels and a single return roller, both items being adopted from the Pz.Kpfw.38(t) neuer Art design. The combat weight of 16 metric tons was spread out over the 35cm-wide tracks with a ground contact length of 3.02m, which resulted in a low ground pressure of 0.76kg/cm<sup>2</sup>. A full tank of 320 litres of petrol was sufficient to cover a distance of 180km on roads or 130km cross-country. Only capable of a maximum speed of 40km/hr, the Jagdpanzer 38 had fallen far short of its design specification.

Tools and equipment stowed externally on the Jagdpanzer 38 included: a jack, a wooden jack block and wire cutters on the right track



Top view of the armour mantle over the Kugellafette on the Jagdpanzer 38, Fgst. Nr. 321042, at Camp Borden shows that only two external bolts are now used to secure it on the front plate. (HLD)

guard; a wrecking bar on the left track guard; eight spare track links connected with pins on the rear deck; six spare track links and two tow cables on the hull rear; and two S-hooks in the box on the left rear track guard.

### **MODIFICATIONS INTRODUCED DURING THE PRODUCTION RUN**

Combat-loaded production vehicles weighed 16 tons instead of the initial specification for 13 tons. This additional 3 tons resulted in overloading of the drive train, clutch and the leaf spring suspension. The vehicle was front-heavy, being 10cm lower at the front than at the rear. On 25 June 1944 the following modifications were proposed to alleviate these problems:

1. The armour was to be changed to achieve balance;
2. A new drive train was to be developed;
3. To improve the driving characteristics, thicker leaf springs were to be used to compensate for the imbalanced weight distribution.

Given that the design had been rushed into production in record time, it is remarkable how few problems were encountered. The following list of modifications include all significant changes to the external appearance of the Jagdpanzer 38 as well as those introduced to improve automotive performance.

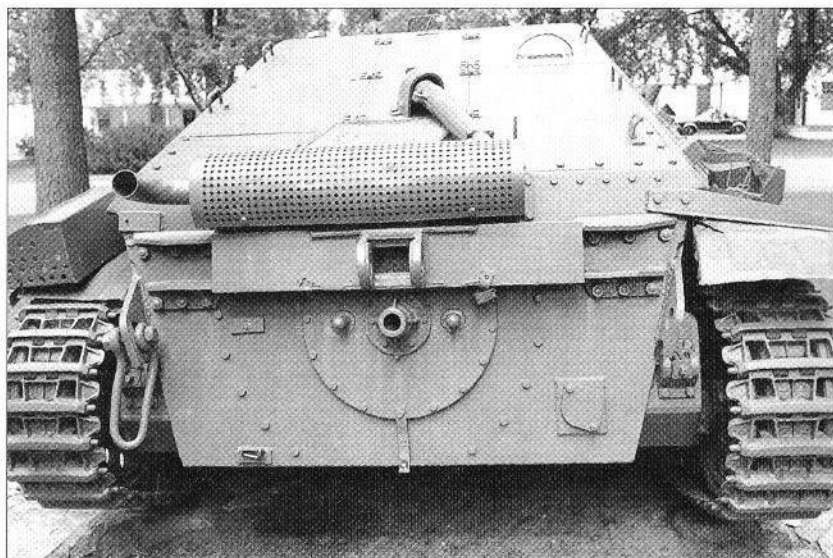
*April 1944*

The rams-horn towing brackets were dropped, and replaced by extending a section of the hull side armour plate and drilling holes to form a bracket.

The weight of the gun mantle was reduced by decreasing the size of the flange on the upper hull plate.

To reduce manufacturing time, holes were no longer drilled in the outer ring of the drive sprocket wheel.

Jagdpanzer 38, Fgst.Nr.321042, is fitted with the large tow coupling which was later only associated with the Bergepanzerwagen 38. The guard over the exhaust pipe is rounded. A large hatch was provided on the sloping rear for the commander. Later this was improved by cutting out a small hatch. (HLD)



The armour guard on the Rundumsfeuer machine gun was cut shorter to prevent fouling the main gun sight guard.

#### *May-July 1944*

In order to increase access without having to open the large hatches on the rear deck, three smaller hatches were introduced in the following order:

- a. A hatch for the commander that opened to the rear.
- b. A hatch to fill the radiator on the lower right.
- c. A hatch to fill the fuel tanks on the lower left.

The heat guard surrounding the muffler was deleted.

Three short drilled and threaded cylinders known as Pilsen were welded onto the roof as base mounts for a 2-ton jib crane which was used to lift heavy components during maintenance of the gun, engine or drive train.

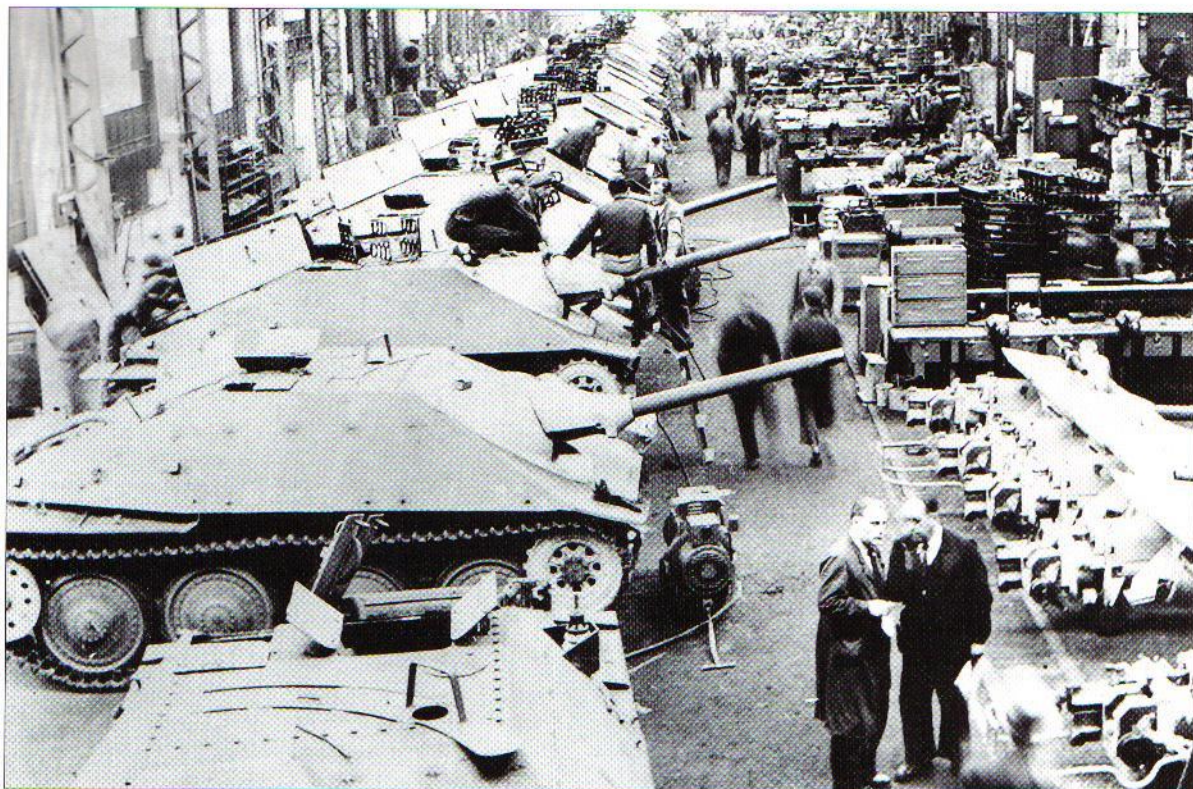
#### *August 1944*

A lighter outer and inner gun mantle was introduced. This reduced the weight by 200kg.

Roadwheels were introduced with a larger diameter centre disc and a smaller rim. Prior to this, the smaller diameter roadwheel discs had been modified to create larger diameter roadwheels by bolting on a larger rim. At first the new rims were still drilled for 32 bolts, but frequently only 16 bolts were installed.

To reduce the machining time during manufacturing, starting in August an entire series of different shaped idler wheels were mounted.

**This was the production line at BMM on 19 June 1944. The Jagdpanzer 38 in the immediate foreground is equipped as a Befehlspanzerwagen, with an additional antenna on the left-hand side for the additional Fu 8 radio set. Shortage of the remote-controlled MG 34 has led to the temporary fitting of a cover plate on the roof of this batch. (BMM)**



Front view of a Jagdpanzer 38 produced in late June 1944 by BMM. A rear view shows a tow coupling similar to that mounted on the Jagdpanzer 38 Fgst.Nr.321042 on display in Camp Borden. (BMM)



The following designs are listed in their order of introduction:

- a. Reduced to 6 holes on the original style flat plate.
- b. Welded spokes with 8 holes on a flat plate.
- c. Stamped ribs in a dished plate with 6 holes.
- d. Six holes in a smooth dish.
- e. Four holes in a smooth dish.

Two handles were welded inside above the driver to help him make a fast exit from the vehicle.

#### *September 1944*

The ends of the Schürzen side plates were bent in to prevent them being torn off when the vehicle brushed against trees.

To reduce the number of broken leaf springs caused by the overburdened suspension, the frontal set of 16 was increased to 9mm thick while the rear set of 16 remained 7mm thick.

#### *October 1944*

Armour piercing shells had penetrated through the driver's periscope housing. This had occurred when shells that hit lower on the front plate skidded up the plate, caught on the protruding housing and then penetrated. This armoured cover was therefore removed and the periscopes mounted in holes cut flush in the front plate. A sheet metal guard was added to prevent rain or sunlight from interfering with the driver's vision.

The bolts holding the rim on the roadwheels had worked loose. New roadwheels were introduced that were riveted instead of bolted.

To eliminate engine backfires and the glowing exhaust from lighting up the vehicle at night, a Flamm-Vernichter exhaust replaced the cylindrical muffler.

A spring compensator for the breech-heavy gun was installed to aid elevation. This was necessary because a shortage of ball bearings meant that roller bearings were now installed in the gun mount.



A larger nozzle with an overflow pan was fitted to allow rapid filling of the fuel tanks.

A Solex-Handpumpe replaced the unreliable electric fuel pump.

A head cushion was fastened to the commander's hatch.

#### *November 1944*

In order to increase the number of rounds carried, the sight bracket storage box was moved to the right side of the commander. This provided stowage space for an additional five rounds for the 7.5cm Pak 39.

A new longer-lasting water pump was installed.

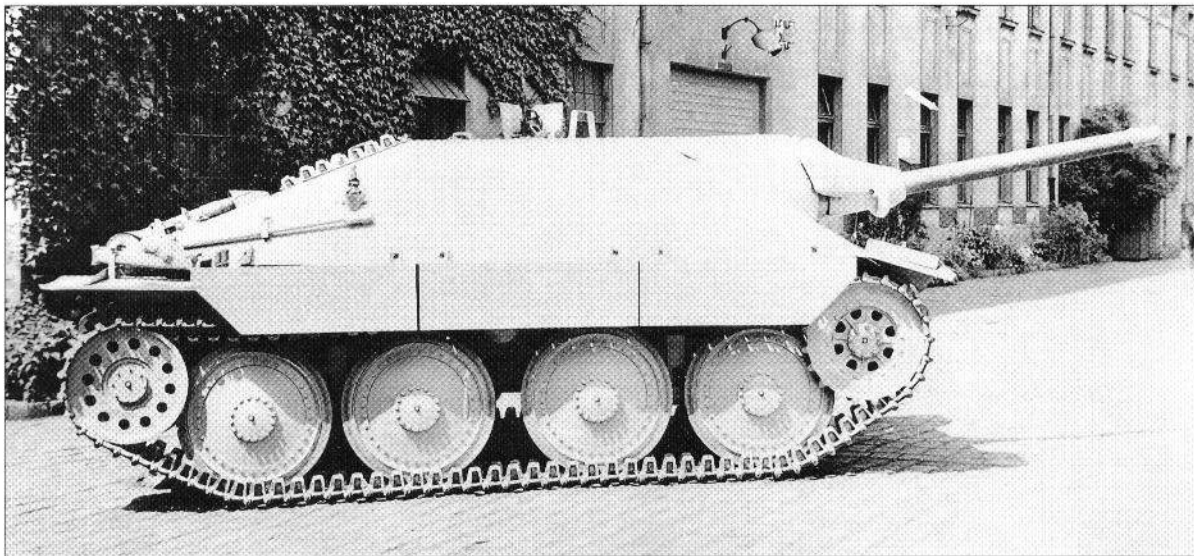
A better designed distribution vent in the firewall was installed to provide even crew compartment heating.

A heating plate was installed for the battery to keep it from freezing.

#### *January 1945*

Due to the limited traverse of the main gun, the entire vehicle often had to be turned to engage a target. This strained the final drives, which were often subject to failure due to the Jagdpanzer being both front heavy and weighing three tons over the design specification. Starting in mid-January, a new Model 6.75 final drive with a stronger 10:80 gear ratio replaced the older Model 6 with its 12:88 gear ratio.

**Side view of a late June 1944 production Jagdpanzer 38 at the BMM factory. The 60mm thick armour of the original Kugellafette Ausf. III (ball mount for the gun) and inner mantle and external mantle caused a particularly nose-heavy configuration. This resulted in the characteristic nose-down tilt of these early Jagdpanzer 38. The front of the Jagdpanzer 38 was actually 10cm lower than the rear. In July 1944 forty-five Jagdpanzer 38 were issued to each of the Heeres Panzer Jäger Abteilung 731 and 743 for use in the east. (BMM)**



#### *March 1945*

On 19 March an immediate switch to a diesel motor was ordered by Guderian due to the fuel shortage, but this order was not carried out due to delays that would have been caused in production – a Heeres Waffenamt study in January had shown that the only parts that could be retained between diesel powered and petrol powered Jagdpanzer 38 was the forward hull shape, the roadwheels and the idler.

#### *Other modifications in 1945*

To hold branches in place for camouflage, rings were welded to the upper hull front and sides.



**Jagdpanzer 38 Fgst.Nr.321364 on display in the Swedish Tank Museum at Axvall. It was built by BMM in August 1944 and illustrates how there is seldom a clear cut-off between old and new components. An old mantle was still mounted on the gun. But the final lightweight Kugellafette Ausf. V, which no longer had external retaining bolts, was already fitted. The engine deck still does not feature the small radiator filler hatch. The heat guard over the exhaust muffler has been deleted. A batch of lightweight idler wheels with eight large holes was introduced during this period. (SPHF)**

The extended armour hull sides, which had been drilled to create towing brackets, were either strengthened by welding on side supports or deleted and replaced with 'U' brackets welded onto the lower front and rear hull.

#### *Jagdpanzer 38 als Befehlswagen*

Jagdpanzer 38 issued to the battalion headquarters and to the company commanders were fitted with additional radio sets for long-range communications. Those fitted with a longer-range Fu 8 radio set with 30-watt transmitter had Sternantenna (star aerials) mounted on the left side on top of white porcelain insulators protected by metal guards. The Fu 8 (30-watt transmitter with medium wavelength receiver) operated in the frequency band 0.83-3MHz, had a range of 50km by voice transmission and 120km by telegraph key when the vehicle was stationary. When the vehicle was moving the range decreased to 15 kilometres by voice and 50 kilometres by telegraph key. The additional radio sets and transformer for the Fu 8 were mounted along the top of the left side pannier and the GG400 electric generator set mounted on the floor.

## **OPERATIONAL CHARACTERISTICS**

Operational characteristics demonstrate the effectiveness of a combat vehicle by relating the capabilities to effectively deliver firepower, manoeuvre, and survive on the battlefield.

### **FIREPOWER**

The effectiveness of firepower that can be delivered by the main gun is dependant upon the penetration ability of the armour piercing rounds, inherent accuracy of the gun, characteristics of the gun sights and ability to get quickly and accurately on target.

Penetration statistics for armour plate were expressed in terms of the thickness in mm that could be penetrated when the plate was laid back

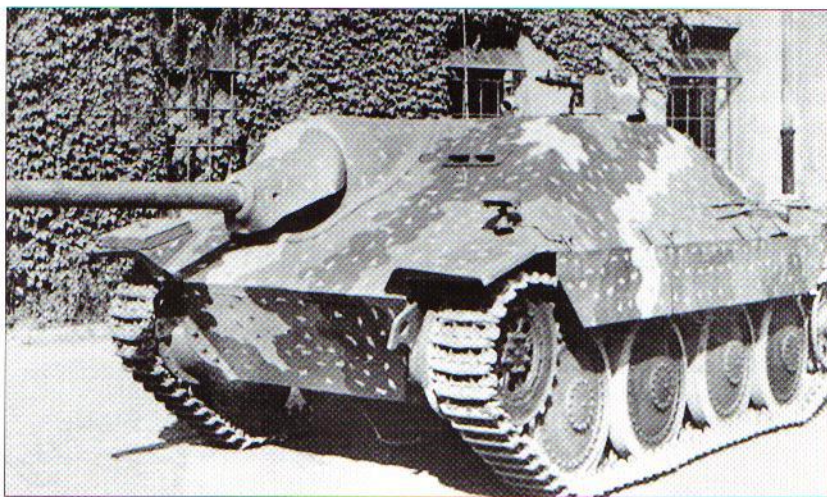
**TABLE 2: ARMOUR PENETRATION**

	Pzgr.39	Pzgr.40	Gr.38 HL/C
Shell Weight:	6.8kg	4.1kg	5.0kg
Initial Velocity:	750m/s	930m/s	450m/s
<b>Range</b>			
100m	106mm	143mm	100mm
500m	96mm	120mm	100mm
1000m	85mm	97mm	100mm
1500m	74mm	77mm	100mm
2000m	64mm		100mm

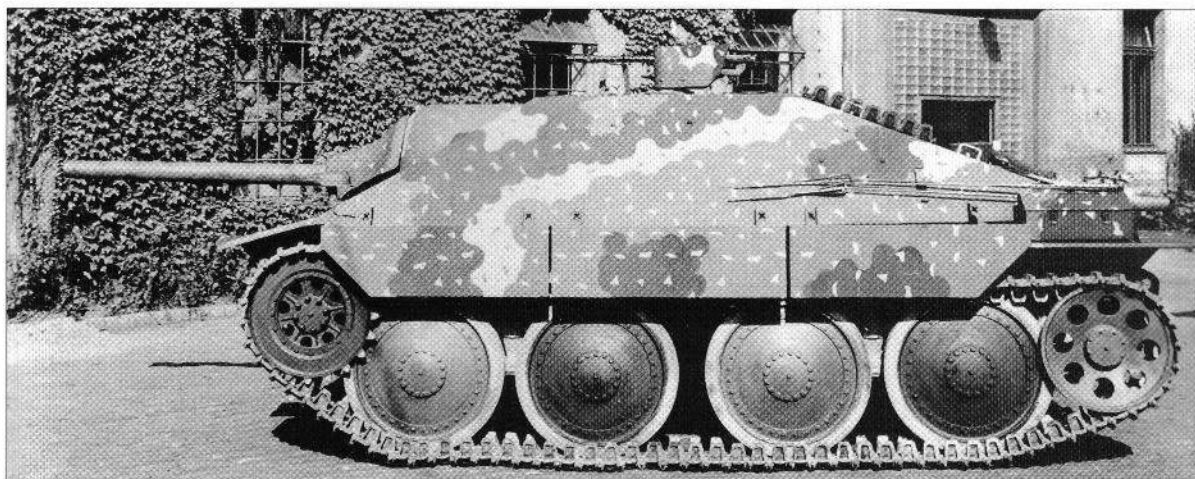
at an angle of 30 degrees from the vertical. The penetrating ability of armour piercing rounds fired from the 7.5cm Pak 39 L/48 was determined by tests conducted at firing ranges. The results are shown in Table 2.

Of the total ammunition load of 41 rounds, it was recommended that the Jagdpanzer 38 carry at least 35 per cent Pzgr.39 (armour piercing, capped, ballistic capped with explosive filler and tracer) to fight tanks and the rest as Sprgr. (high-explosive shells). When available, a few rounds of Pzgr.40 (high velocity, sub-calibre, tungsten core) were carried for use against the heaviest armoured Russian tanks and tank destroyers. The Pzgr.40, without an explosive filler charge, was not as lethal after penetration as the Pzgr.39. A fourth type of round was the Gr.38 HL (HEAT) based on the hollow charge principle. With far less penetrating ability, the Gr.38 HL was also less accurate and much less destructive than the Pzgr.39. However, the Gr.38 HL could be carried in place of high-explosive shells and used either to combat armour or as an effective high-explosive round against soft targets.

The 7.5cm Pak 39 was a fairly accurate gun capable of first round hits at ranges up to 1000m. The estimated accuracy shown in Table 3 is given as the probability (in percentage) of hitting a target 2m high and 2.5m wide – the target presented by the front of an opposing tank. These tables are based on the assumption that the actual range to the target has been determined and that the distribution of hits is centred on the target. The first number shows the accuracy in percentage that was obtained during controlled test firing of the gun to determine the pattern of dispersion. The second number in parentheses was calculated by doubling the dispersion obtained from controlled test firing. The Germans considered that ‘doubled dispersion’ was a close approximation of the accuracy obtained by the troops in practice and, if they remained calm, in combat.



**A left front view of a late August production Jagdpanzer 38 at BMM. The Kugellafette Ausf. V and the lightweight gun mantle are of the final type. The hull still had tow lugs that were hooked on their lower surface. The factory now painted the camouflage pattern before delivery. (BMM)**



The left side view of a late August production Jagdpanzer 38. Ignore the two spare antenna as they are 'stern antenna d' used only for the long-range radio of a Befehlspanzerwagen (command vehicle). During August Jagdpanzer 38 were issued to various units, including 29 to the 8. SS Kavalerie Division. (BMM)

**TABLE 3: ACCURACY OF THE 7.5CM PAK 39**

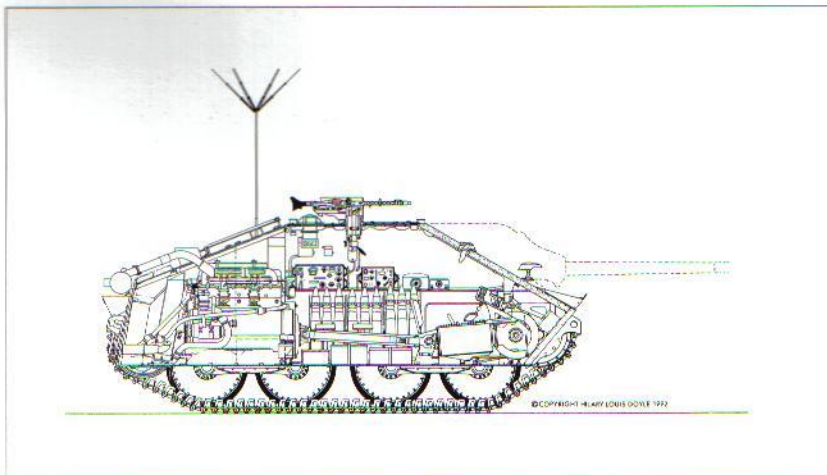
Ammunition	Pzgr.39	Pzgr.40	Gr.38 HL
Range	%	%	%
100m	100 (100)	100 (100)	100 (100)
500m	100 (99)	100 (98)	100 (100)
1000m	99 (71)	95 (58)	82 (45)
1500m	77 (33)	66 (24)	42 (15)
2000m	48 (15)	21 (6)	20 (6)
2500m	30 (8)		
3000m	17 (4)		

These accuracy tables do not reflect the actual probability of hitting a target under combat conditions. Due to errors in estimating the range and many other factors, the probability of a first-round hit was much lower than shown in these tables. However, the average gunner could achieve the accuracy shown by the number in parentheses after adjusting his fire onto the centre of the target.

The main gun sight in this Jagdpanzer was the Sfl.Z.F.1a periscope, mounted to the left of the gun with the head protruding through a hole in the roof. The pattern in the reticule consisted of 7 triangles, separated by 4 mils. Placing the target on the point of a triangle allowed the gunner to aim without obstructing his view of the target. The distances between triangles were used to lead moving targets. The triangle height and separation distances in mils were also used as an aid in estimating the range to a target. The gunner set the range to the target by adjusting the range drum for the selected ammunition. Range scales were marked on the range drum for each type of ammunition. The range drums were graduated at 100m intervals to a range of 3,000m for the Pzgr.39, 2,000m for the Pzgr.40, 2,400m for the Gr.38 HL and 3,600m for the Sprgr.34.

#### **MOBILITY**

The Jagdpanzer 38 could negotiate obstacles and cross terrain as well as or better than most Allied tanks, as shown by the performance characteristics listed in Table 4.



1:76 scale top and right side section views of a Jagdpanzer 38 manufactured in September 1944. This was outfitted as a Befehlspanzer (command vehicle) and this drawing shows the position of the extra radio set (Fu 8) . (Hilary Louis Doyle)

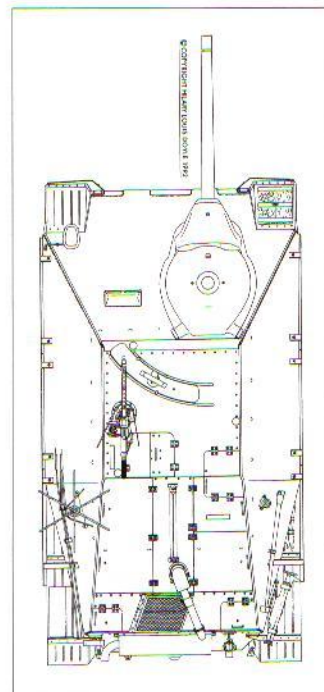
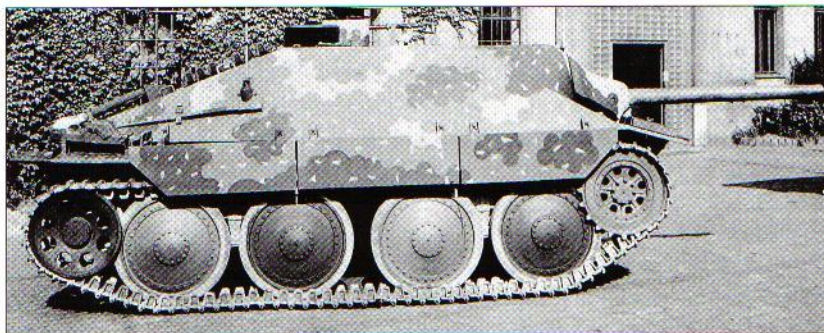


TABLE 4: PERFORMANCE CHARACTERISTICS	
Maximum speed	40km/hr
Maximum sustained road speed	20–30km/hr
Average cross-country speed	15km/hr
Radius of action, road	180km
Radius of action, cross-country	130km
Trench crossing	1.3m
Fording	0.9m
Step climbing	0.65m
Gradient climbing	25 degrees
Ground clearance	0.38m
Ground pressure	0.76kg/cm <sup>2</sup>
Power to weight ratio	9.4 metric HP/ton
Steering ratio	1.28

### SURVIVABILITY ON THE BATTLEFIELD

Along with the extremely effective main gun, a major asset of the Jagdpanzer 38 was its thick frontal armour. However, the side and rear armour protection was only adequate to keep out armour piercing bullets fired by small arms and machine guns. The penetration range tables, extracted from a Wa Prüf 1 report dated 5 October 1944, relate the relative ability of the major opponents to penetrate the Jagdpanzer and vice versa. The penetration ranges were calculated on the assumption that the tanks stood at a side angle of 30 degrees to the incoming projectile.



The right side view of a late August production Jagdpanzer 38 on display at the BMM factory in Prague. The so-called 'ambush' camouflage pattern applied in the factory is clear. (BMM)

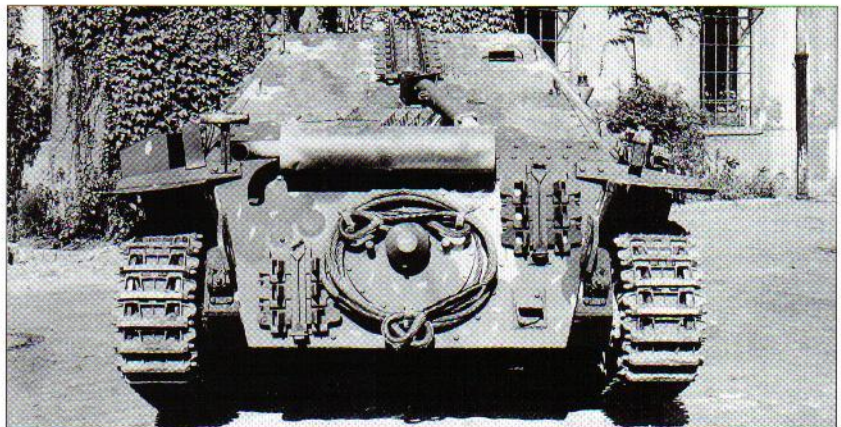
### PENETRATION RANGE TABLE 1: JAGDPANZER 38 VS. CROMWELL AND CHURCHILL

	Jagd pz.38 7.5cm Pak 39 penetrates Cromwell up to	Cromwell 75mm M3 penetrates Jagd pz.38 up to	Jagd pz.38 7.5cm Pak 39 penetrates Churchill up to	Churchill 75mm M3 penetrates Jagd pz.38 up to
<b>Front:</b>				
Turret	1000m	—	1700m	—
Mantle	1600m	0m	1400m	0m
DFP*	1800m	0m	1300m	0m
Nose	1400m	0m	1100m	0m
<b>Side:</b>				
Turret	1800m	—	1700m	—
Super	3000m	3000m	3000m	2600m
Hull	1800m	3500m +	3000m	3500m
<b>Rear:</b>				
Turret	2100m	—	2600m	—
Hull	3500m +	3500m +	3500m +	3400m

\*DFP = Driver's Front Plate

### PENETRATION RANGE TABLE 2: JAGDPANZER 38 VS. SHERMAN A2 AND SHERMAN A4

	Jagd pz.38 7.5cm Pak 39 penetrates Sherman A2 up to	Sherman A2 75mm M3 penetrates Jagd pz.38 up to	Jagd pz.38 7.5cm Pak 39 penetrates Sherman A4 up to	Sherman A4 76mm M1A1 penetrates Jagd pz.38 up to
<b>Front:</b>				
Turret	1000m	—	1000m	—
Mantle	100m	0m	100m	100m
DFP	0m	0m	0m	0m
Nose	1300m	0m	1300m	800m
<b>Side:</b>				
Turret	3000m	—	3000m	—
Super	3500m +	3000m	3500m +	3500m +
Hull	3500m +	3500m +	3500m +	3500m +
<b>Rear:</b>				
Turret	3000m	—	3000m	—
Hull	3500m +	3500m +	3500m +	3500m +



The rear view of a late August production Jagdpanzer 38. (BMM)

### PENETRATION RANGE TABLE 3: JAGDPANZER 38 VS. T 34/85 AND JS 122

	Jagd pz.38 7.5cm Pak 39 penetrates T 34/85 up to	T 34/85 85mm S53 penetrates Jagd pz.38 up to	Jagd pz.38 7.5cm Pak 39 penetrates JS 122 up to	JS 122 122mm A19 penetrates Jagd pz.38 up to
<b>Front:</b>				
Turret	700m	—	100m	—
Mantle	100m	100m	0m	500m
D.F.P.	0m	0m	0m	0m
Nose	0m	400m	100m	1200m
<b>Side:</b>				
Turret	1300m	—	300m	—
Super	1400m	3500m +	200m	3500m +
Hull	3200m	3500m +	500m	3500m +
<b>Rear:</b>				
Turret	1800m	—	0m	—
Hull	1000m	3500m +	100m	3500m

## CREW IN ACTION

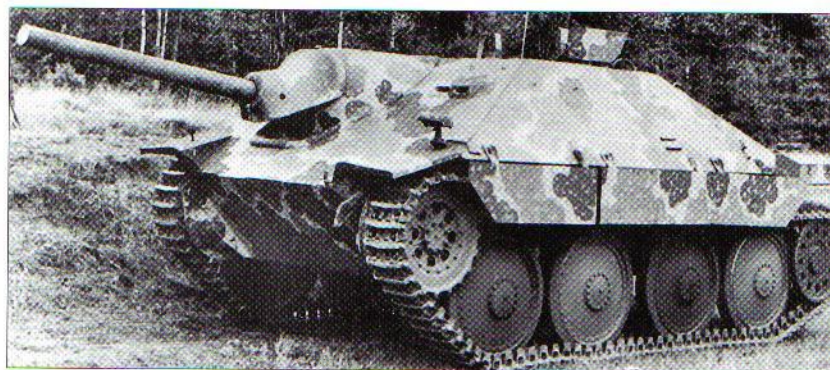
Success in combat depended on every crew member performing their assigned duties calmly and proficiently. The duties of each crew member were found in a training document entitled *Feuerleitung* (Fire Control), dated November 1944. This rare document, saved by the commander of the training school for Jagdpanzer 38 crews at Milowitz, explained in detail the actions that each crew member needed to perform in order to kill enemy tanks, as follows:

**Commander** Thorough observation of the battlefield is needed for recognition of targets. In total darkness it is important to listen. Fighting compartment lights out! Shoot flares at low angles (not over 10 degrees elevation). Only use parachute flares when in well hidden or partially covered firing positions. Only use the searchlight to illuminate the target area for a short period (3 to 5 seconds). Turn it aside or cover it because the bulb still glows after it is turned off and can be easily seen by the enemy.

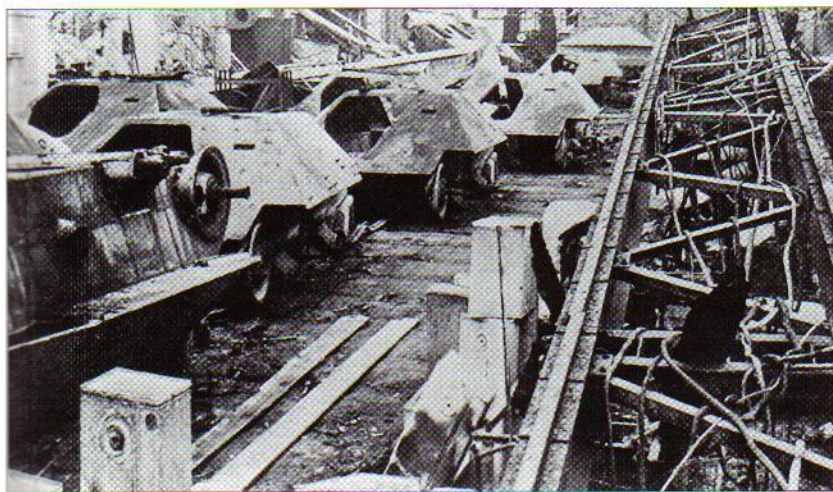
Select the target and order the driver to move into the selected firing position: 'Driver, edge of the woods at two o'clock, behind the earth wall – Marsch!'

**Gunner** Disconnect the internal gun travel lock and search for targets that you report to the commander. Open fire without orders if it is necessary to immediately destroy the target (such as an anti-tank gun at short range). Connect the internal gun travel lock before the vehicle moves off again. Continuously inspect

Jagdpanzer 38 completed by Skoda, Königgrätz in September had the final gun mantle and Kugellafette Ausf. V. There are radiator filler hatches at the rear of the motor deck. The new road wheels with larger disks, smaller rims and 32 bolts are a significant change. The old-style hull with higher rear tow brackets, hooked on their underside, was still being used. During September units such as the 183. Volks Grenadier Division and 16. SS Pz.Gren.Div. received Jagdpanzer 38. (Skoda Archives)



Armoured hull production at Skoda Werke Pilsen was severely disrupted by two bombing raids in October 1944. Skoda Werke Pilsen was again bombed in December 1944. (Tank Museum)



the weapon, firing contacts, cleanliness of the gun sight, and that the sight is firmly seated. At dusk and at night turn on the sight reticule illumination and set the sights on the Sprgr. range drum to 400 metres.

**Loader** Prepare for action – fuse setting key on hand and rags available to wipe off the rounds before loading to prevent jams. If possible, help observe, especially to the side and rear!

**Driver** Observe the battlefield, searching for targets and estimating their range. Consider possible routes and the next firing position. Seek out an excellent firing position so that, if possible, the Jagdpanzer is on a slight uphill slope with a ridge in front of the hull and the exposed part of the hull concealed by bushes or shade. If the driver can see the target from the hull down position, then the gunner can fire over the ridge.

**Commander** Start the firing command by stating the target location and direction using terrain features and clock face system. Exactness is necessary down to the half-hour, such as 'Shed at 11:30!' At night, to preserve night vision, announce to the crew that you are turning on the searchlight before illuminating the battlefield.

**Gunner** Disconnect the travel lock and then adjust the sights after the Jagdpanzer has halted.

**Loader** Open the gun breach.

**Driver** Turn right or left so that the target is directly in front of the Jagdpanzer, halt and help observe.

**Commander** Clearly enunciate the selected ammunition by stretching the first syllable 'P-a-nzergranate, N-e-belgranate, Spr-ae-nggranate, or H-ohlgranate'.

**Gunner** Use the right hand to select the ammunition range drum on the gun sight.

**Loader** Remove the ordered round from its holder. Wipe the excess grease off the fuse screw with your thumb. Use rags to remove any dirt from the round. Load with both hands, laying the nose of the round in the breach. Run it in with a balled fist so that the closing breech block throws your hand up out of the recoil path. Immediately turn the safety switch to the firing position and announce: 'Loaded'.

**Commander** Announce the range setting in hundreds of metres.

**Gunner** Use the right hand to turn the range drum marker to the

selected range and use the left hand to start elevating or depressing the gun. Then look through the sight.

**Commander** Announce the direction to traverse the gun right or left and describe the selected target (i.e. anti-tank gun or tank) and its position (front, approaching, moving off): 'Right of the shed – 15 miles to the left – T 34 side on!'.

**Gunner** Traverse and elevate the gun in the ordered direction to pick





Pre-painted hulls and partly completed Jagdpanzer 38 at BMM in October 1944. The visible features of the Jagdpanzer 38 of this period were: the new driver vision block arrangements; wheels with 16 rivets; new hulls with the underside of the tow brackets lowered. The front and rear of the Schürzten was bent inwards to avoid catching and being torn off. In October the camouflage pattern at BMM was changed to a base of Dunkelgelb – RAL 7028 (dark yellow) with patches and stripes of Olivgrün – RAL 6003 (dark olive green) and Rotbraun – RAL 8017 (dark red brown). Matt black rectangles were painted on the front plate as decoys to protect the driver's vision blocks. (BMM)

up the target in the gun sight field of view. Announce when the target is recognised. Position the target on top of the inverted 'V' in the sight reticule.

**Commander** If the target is moving, announce direction and offset in mils to the gunner, such as: 'Approaching from right – 6 mils'.

**Gunner** Move the gun sight to lead the target by 6 mils – using the smaller inverted 'Vs' in the sight reticule spaced 4 mils apart.

**Commander** Announce 'Fire' after getting set to observe the flight of the tracer or impact of high-explosive shells.

**Gunner** Only open fire after the aiming point is exactly set and the command 'Fire' is given by the commander.

**Commander** Closely observe the flight of the shot and where it hit and announce the sighting: 'Lost, Over, Close' (for HE), 'Hit, Short, On Target' (for area targets). Better sensing of the rounds can be achieved by the commander of another Jagdpanzer off to the side, where his vision is not hampered by enveloping smoke or flash (at night).

**Gunner and Driver** Also observe the shot and tell the commander if your sensing is different from what he announced.

**Commander** Give the gunner corrections by announcing changes to the side and then in range, such as: 'Five mils right – add 400, target width left – same range'.

**Gunner** Move the sight the ordered distance and reset the range drum to the new distance. Fire when ordered by the commander.

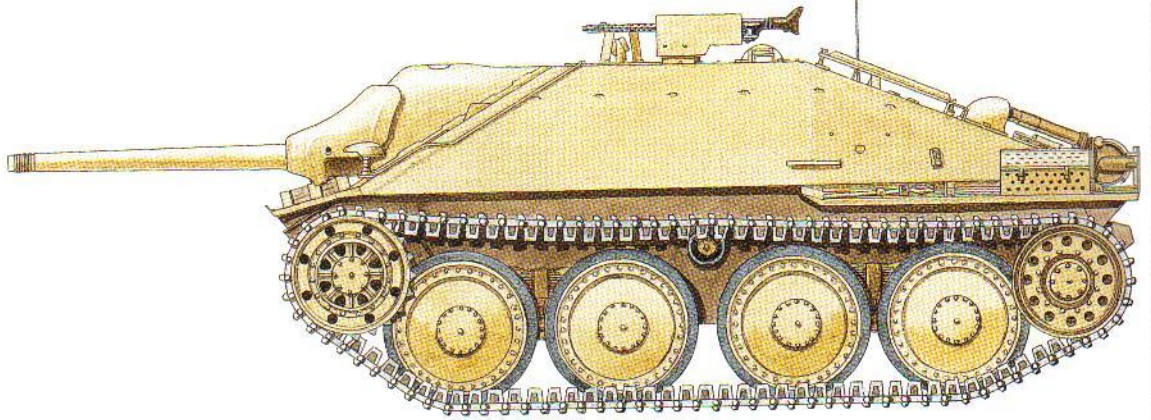
**Commander** Once on target, the firefight will be conducted at the highest rate of fire until the target is destroyed. To save on ammunition expenditure, announce the number of rounds to be fired at each target. Further fire commands are directed at the gunner to change targets. When no more targets are available, a change to another firing position is required, or the attack is to proceed; order the driver to leave the firing position – usually to the rear by announcing: 'Driver reverse Marsch!'.

**Gunner** Quickly connect the travel lock.

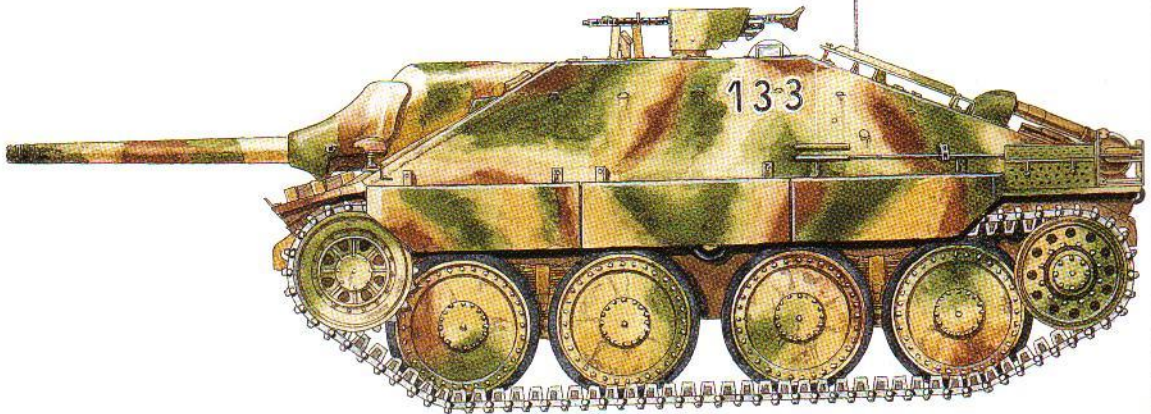
**Loader** If possible, help observe the battlefield.

With a well drilled crew, no more than 15 seconds should have elapsed between the time that a threatening target was spotted and the first aimed round was fired. However, at this time in the war, very few of the crews would have attained this proficiency. In most cases less than a

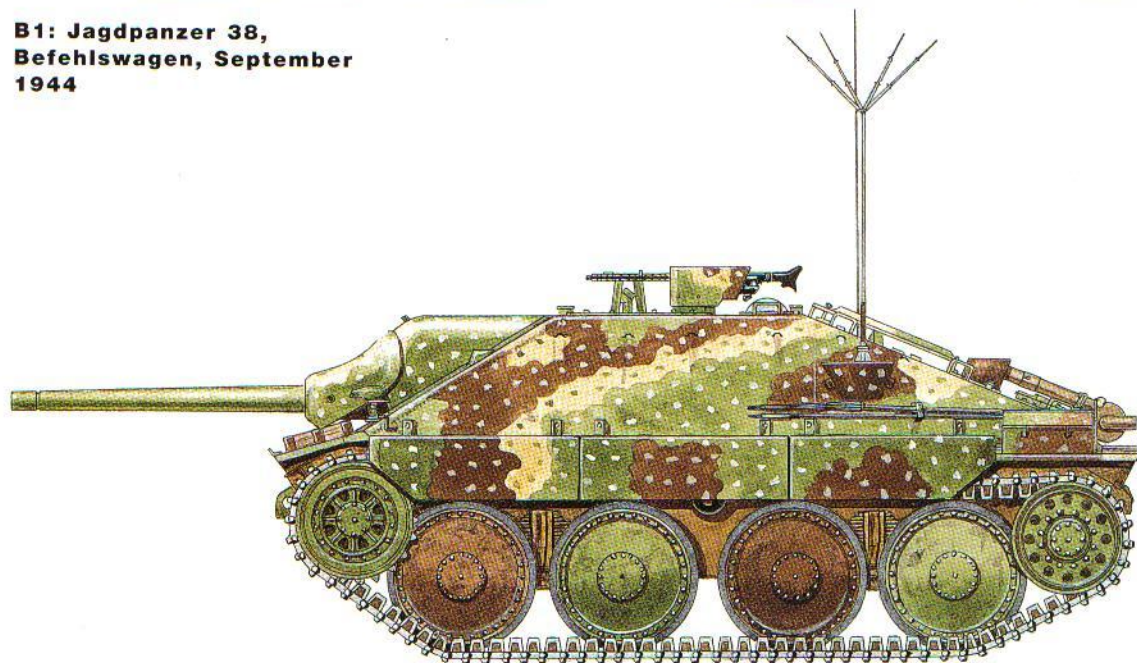
**A1: Jagdpanzer 38,  
Fahrgestell Nr. 321003,  
March 1944**



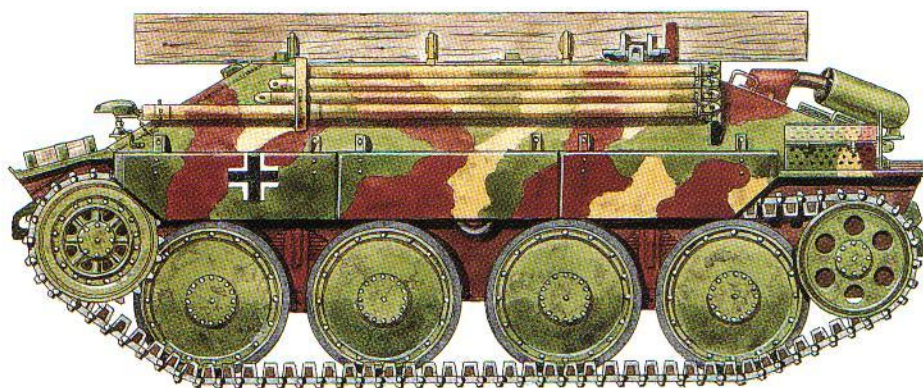
**A2: Jagdpanzer 38,  
May 1944**



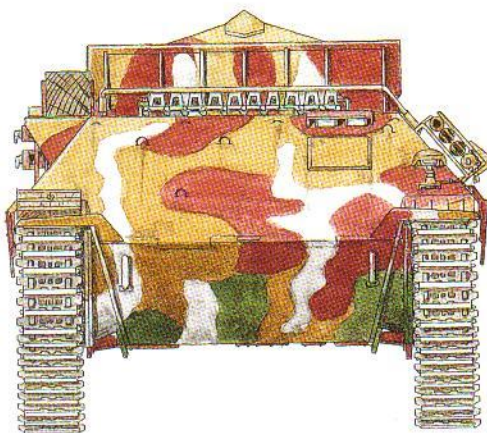
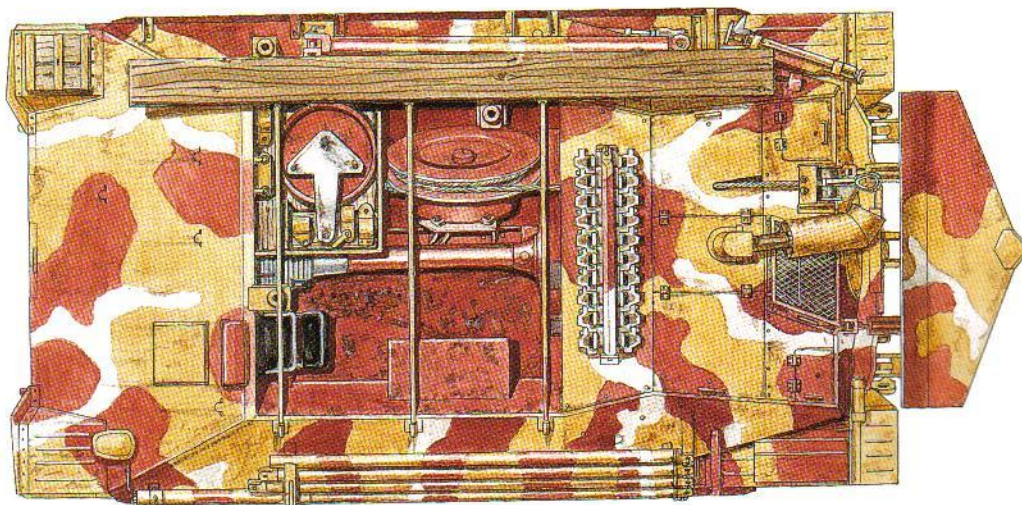
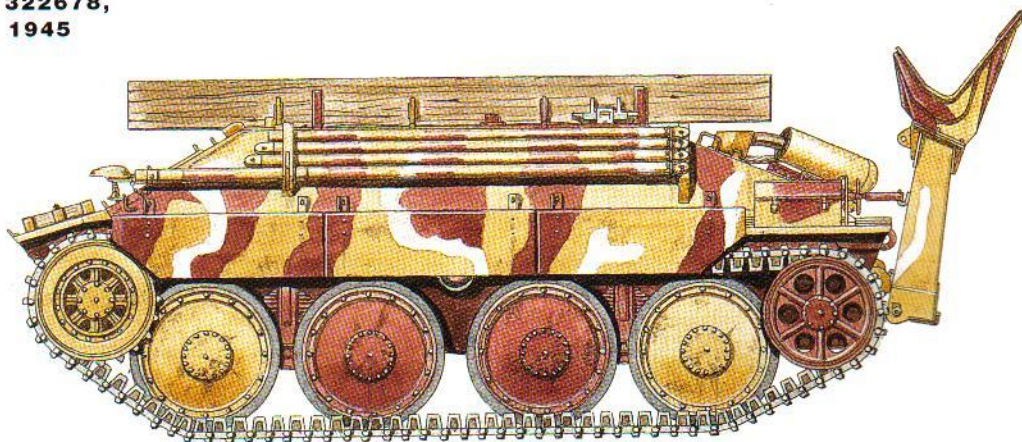
**B1: Jagdpanzer 38,  
Befehlswagen, September  
1944**



**B2: Bergepanzer 38,  
Fgst. Nr. 321822,  
November 1944**



**C: Bergepanzer 38,  
Fgst. Nr. 322678,  
February 1945**



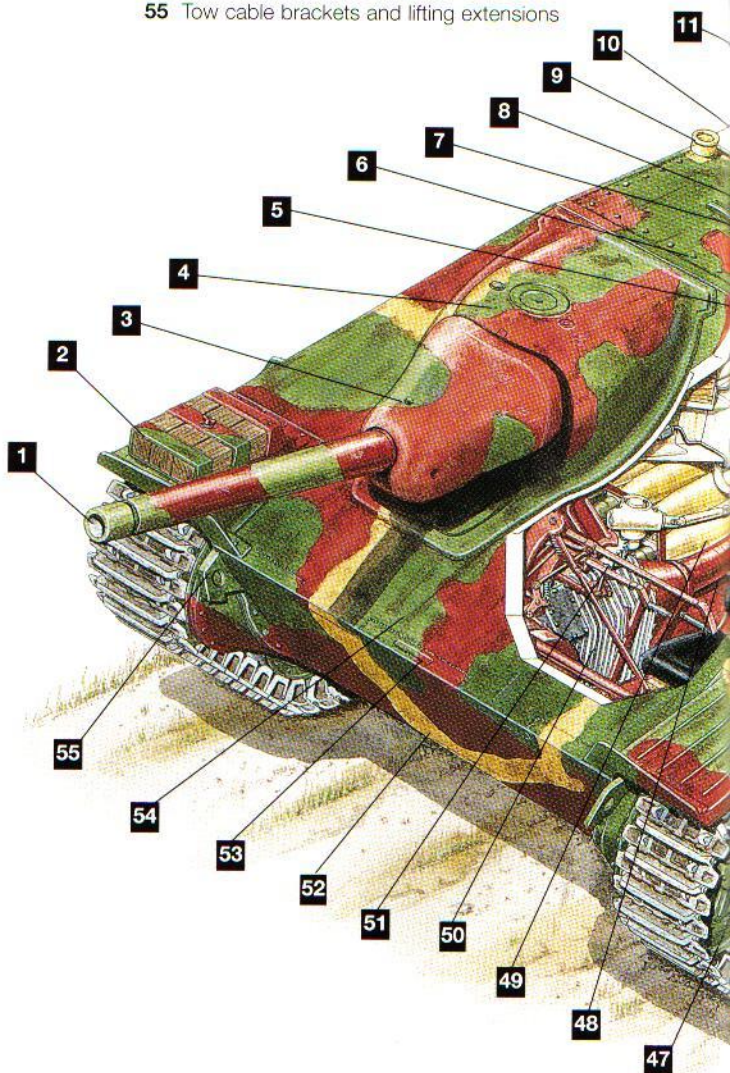
# JAGDPANZER 38, FGST. NR.322111

## DECEMBER 1944

### KEY

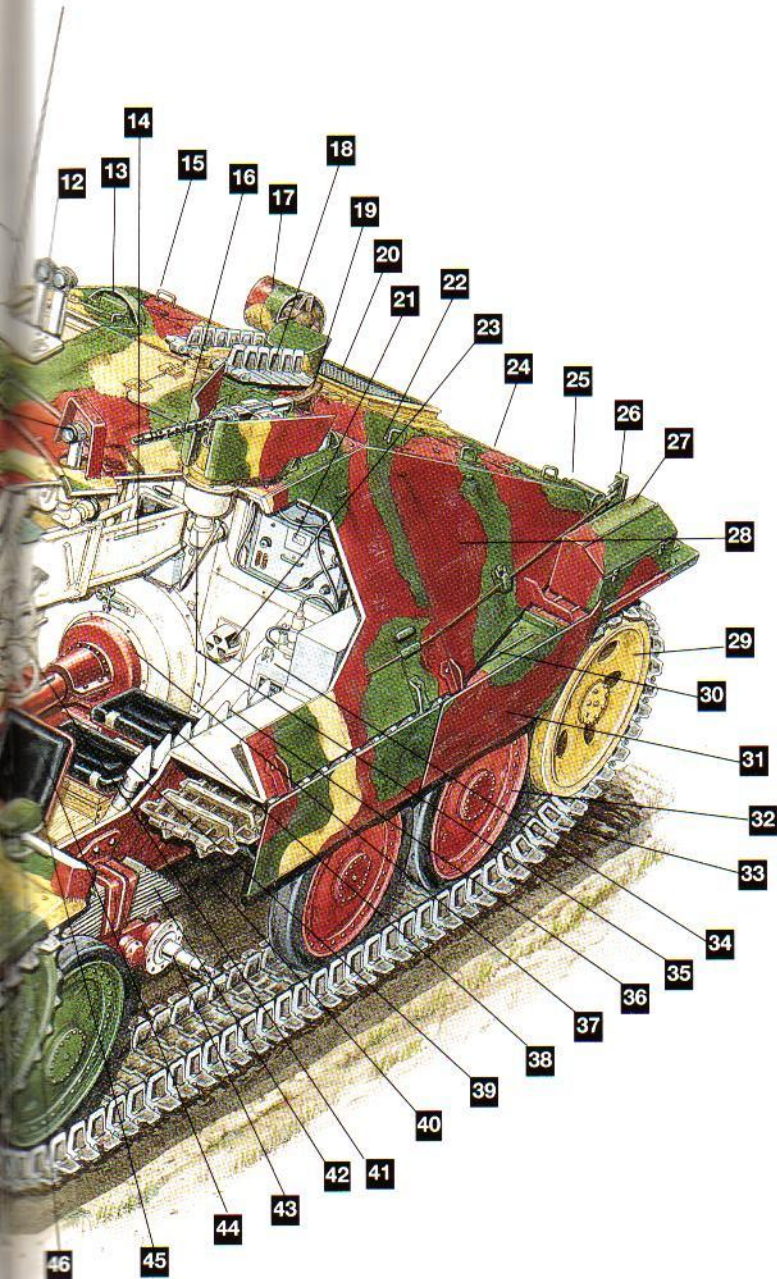
- 1 7.5cm Pak 39 L/48
- 2 Wooden Block for use with jack
- 3 Gun mantlet
- 4 Armoured housing for gun ball mount
- 5 Gun sight mount
- 6 Roof armour 10mm
- 7 Sfl ZF. 1a periscopic gun sight
- 8 Sliding armoured cover for sight aperture
- 9 'Pilzen' socket for mounting 2t jib
- 10 Hatch for Commander's compartment
- 11 2 meter rod antenna for Fu 5 radio system
- 12 SF14Z scissors periscope
- 13 Commander's rear facing periscope
- 14 Recoil guard for 7.5cm Pak 39 L/48
- 15 Access hatches to right side of motor, radiator filler and air filters
- 16 Escape hatch for radio operator, gunner and driver
- 17 Flame damper cowling surrounding exhaust pipe
- 18 Spare track links
- 19 Remote controlled 7.92mm MG 34
- 20 Cooling air outlet with sliding cover
- 21 Fu 5 Radio set
- 22 Left hand side access hatches to 160 PS 6 cylinder EPA AC 2800 motor and battery rack
- 23 Crew compartment heating inlet
- 24 320 liter fuel tank filler access hatch
- 25 Rear convoy light
- 26 Spare 2 meter rod antenna holder
- 27 Tool box
- 28 20mm side armour
- 29 Adjustable idler wheel
- 30 Cooling air intake under rear armour
- 31 Schürzen, 5mm steel plates to protect 20mm side armour from anti-tank rifle fire
- 32 Rubber tyred road wheel with armoured disks
- 33 Track links 350mm wide type Kgs 350/140
- 34 Transformer for radio power
- 35 Periscopic sight for remote controlled MG 34
- 36 Armour piercing ammunition Pzgr.39/40 in pannier racks
- 37 Clutch
- 38 Radio operator's seat
- 39 Gunner's seat
- 40 20mm inward sloping side armour
- 41 Elevation hand wheel
- 42 Semi elliptical spring

- 43 Stub axle
- 44 Traverse hand wheel
- 45 Driver's seat
- 46 Notek blackout light
- 47 Drive sprocket
- 48 Driver shaft
- 49 Ammunition rack on right of gun and drive shaft
- 50 Gearbox, 5 forward and 1 reverse speed
- 51 Steering levers
- 52 Sloped lower front armour 60mm
- 53 Fahrgestell Nr (stamped chassis number)
- 54 Sloped upper front armour 60mm
- 55 Tow cable brackets and lifting extensions

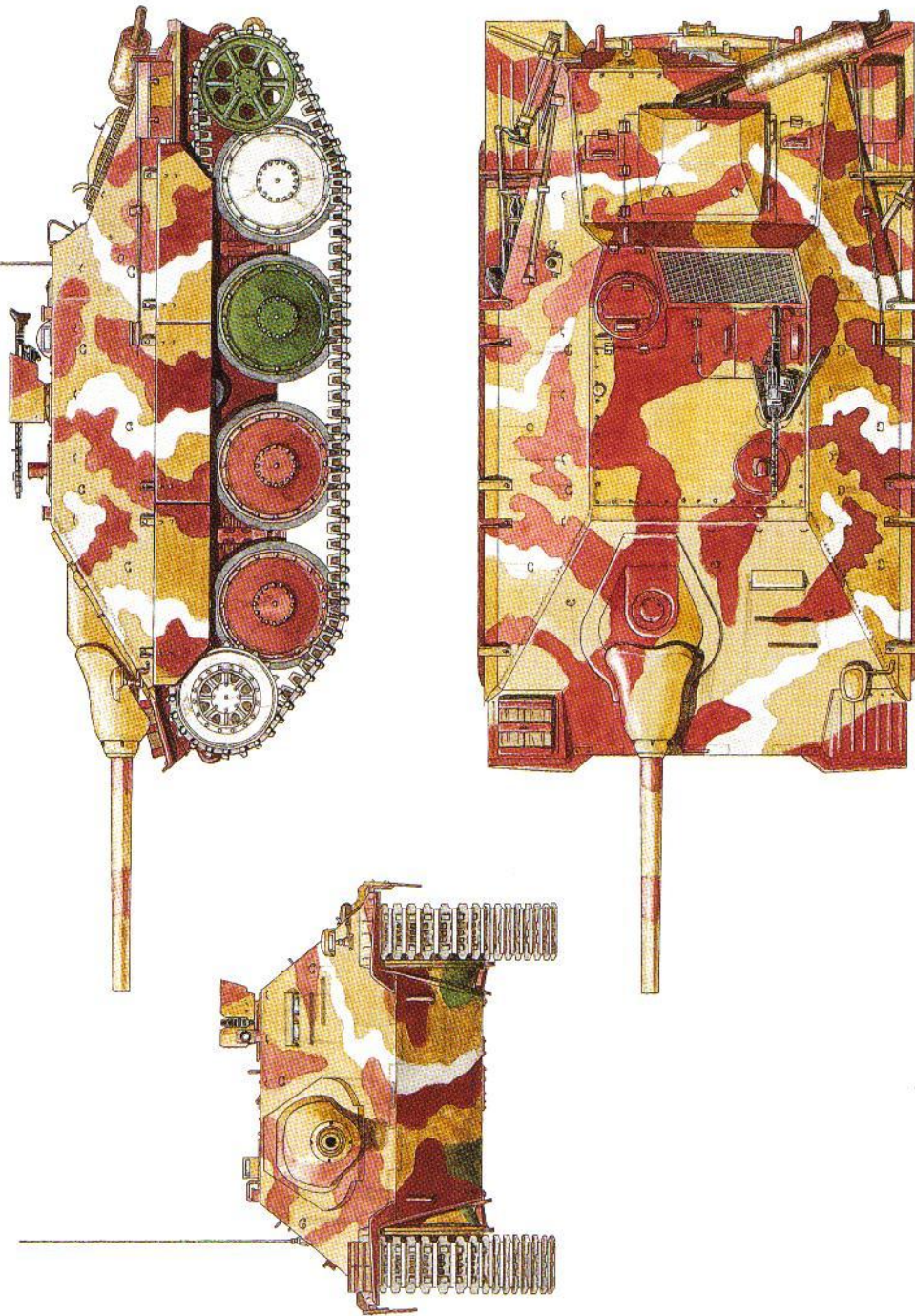


## SPECIFICATION

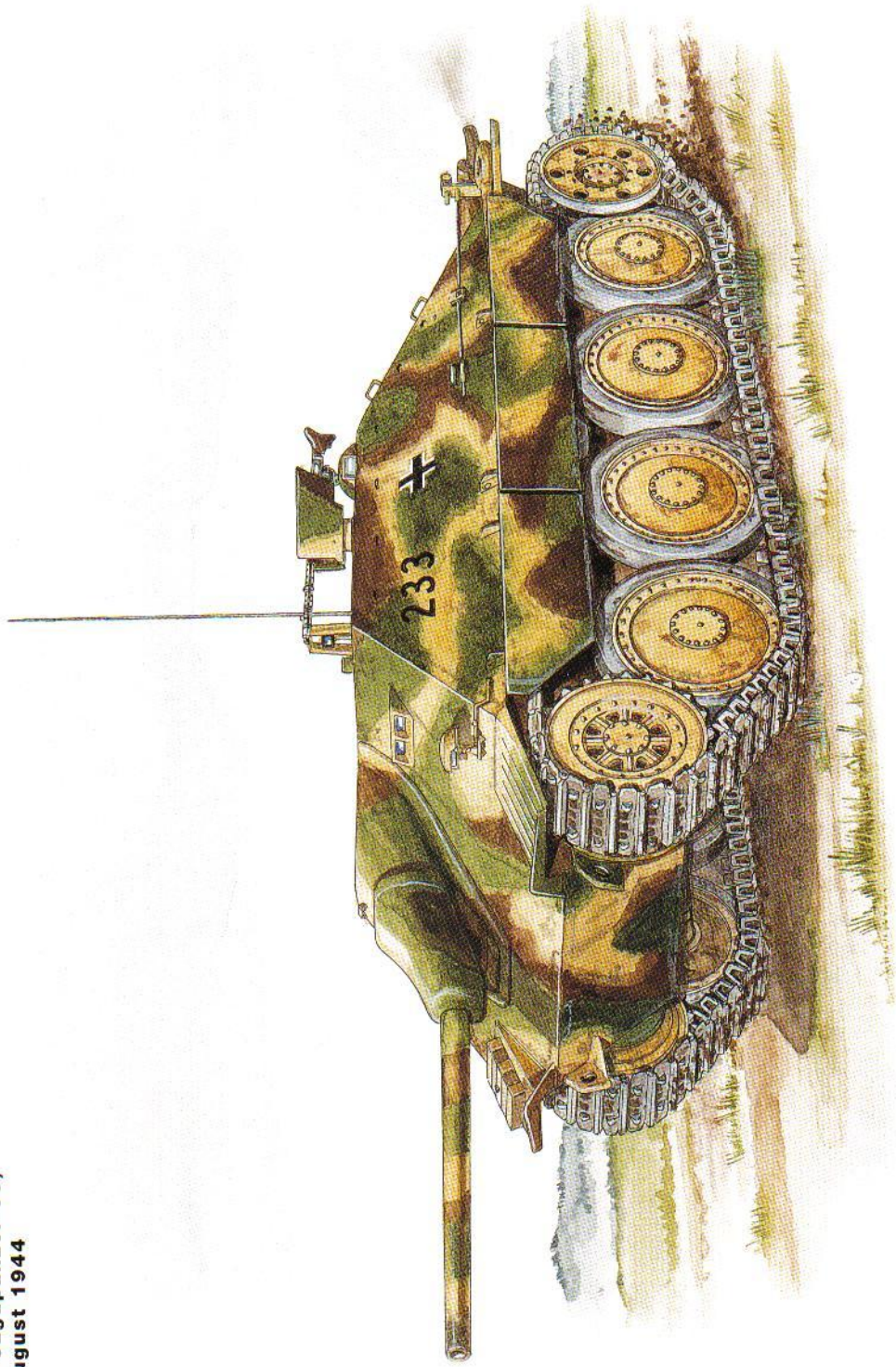
- Maximum speed** 40km/hr  
**Maximum sustained road speed** 20-30km/hr  
**Average cross-country speed** 15km/hr  
**Radius of action, road** 180km  
**Radius of action, cross country** 130km  
**Trench crossing** 1.3m  
**Fording** 0.9m  
**Step climbing** 0.65m  
**Gradient climbing** 25 degrees  
**Ground clearance** 0.38m  
**Ground pressure** 0.76kg/cm<sup>2</sup>  
**Power to weight ratio** 9.4 metric HP/ton  
**Steering ratio** 1.28  
**Combat weight** 16,000kg  
**Motor** 7.754 Liter 6 cylinder epa AC 2800  
160 metric horse power at 3,000rpm  
**Overall length** 6.27m  
**Width** 2.63m  
**Height** 2.10m  
**Transmission** Praga-Wilson 5 forward,  
1 reverse  
**Armament** 7.5cm Pak 39 L/48  
**Main gun ammunition**  
7.5cm Pzgr. 39  
(Armour piercing)  
7.5cm Pzgr. 40  
(Armour piercing - Tungsten core)  
7.5cm Sprgr. (High explosive)  
**Sight** Sf Zielfernrohr 1a  
**Stowed main gun rounds** 41



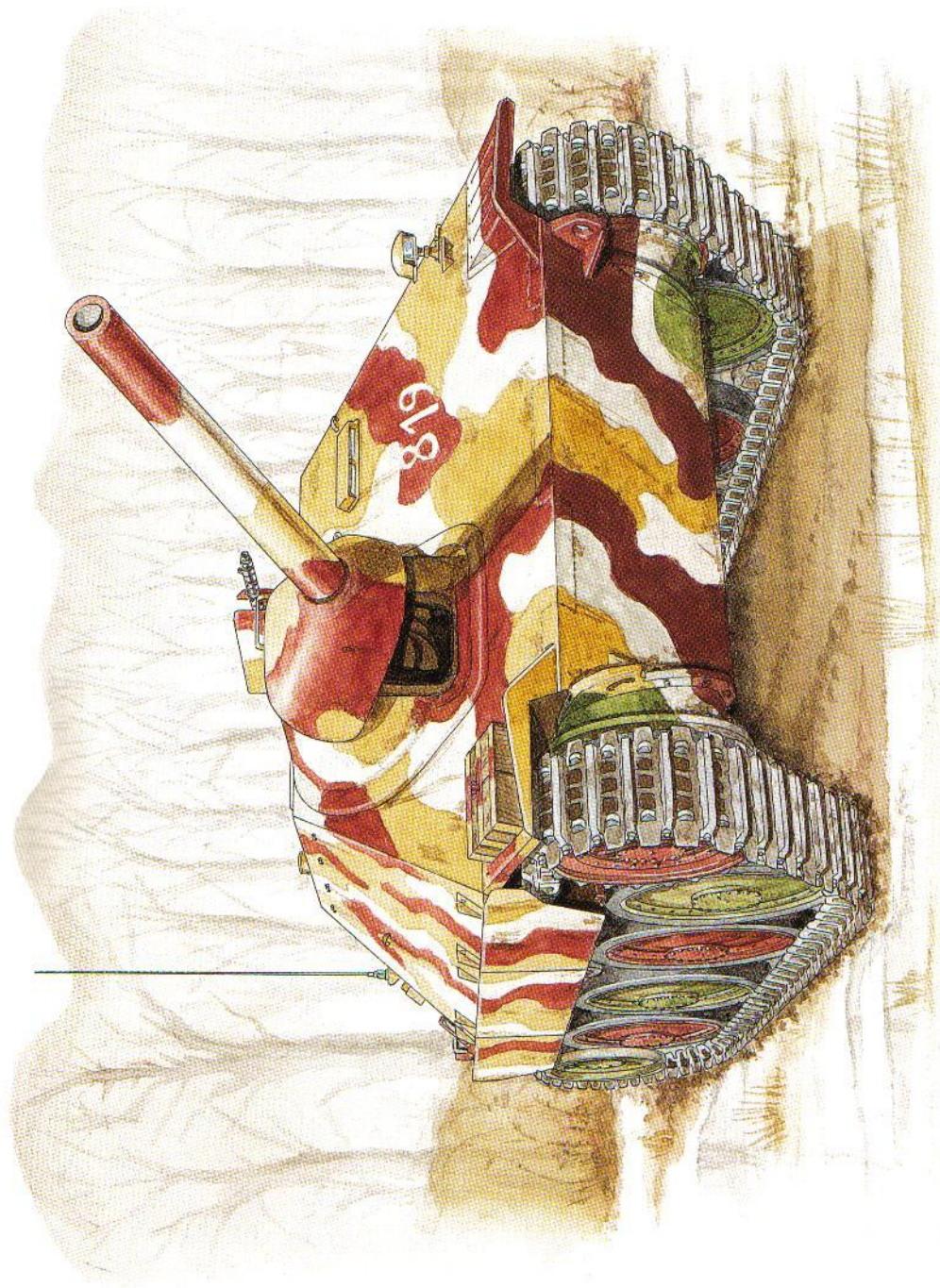
**E: Jagdpanzer 38 starr,  
Fgst. Nr. 322971,  
April 1945**



**F: Jagdpanzer 38,  
August 1944**







G: Jagdpanzer 38,  
Fgst.Nr.323814,  
May 1945

week elapsed between the time that the new Jagdpanzer 38 arrived at the training grounds and the unit was sent to the front.

## COMBAT SERVICE

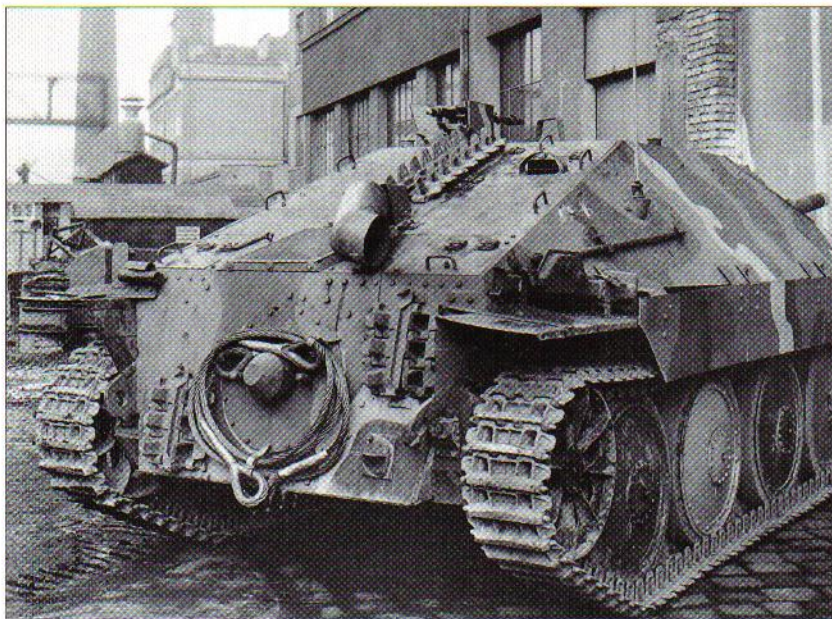
Plans had been made to equip a Panzer Jäger Kompanie of an Infanterie Division with 14 Jagdpanzer 38 as early as April 1944 for troop trials at the front. However, due to numerous minor problems, which resulted in a four to five week delay, the first 20 Jagdpanzer 38 completed in April were not delivered to the Heereszeugamt (ordnance depot) in Breslau until 28–30 May. Fourteen of these were immediately released to the Wa Prüf (2 to Hillersleben, 2 to Bergen, 1 to Wunsdorf, 5 to Kummersdorf, 3 to Berka and 1 to Putlos) for test firing the guns, automotive trials, tests for cold weather operations and development of instruction and maintenance manuals. Seven more were issued to the Panzer Jäger Schule Mielau, followed by an additional 38 issued between 20 June and 25 July to the Ersatzheer for troop training.

Finally, three months after production started, the first combat unit, Heeres Panzer Jäger Abteilung 731, was issued with 45 between 4 and 13 July 1944. This unit was sent to Heeres Gruppe Nord on the Eastern Front. Heeres Panzer Jäger Abteilung 743 with 45 (issued 19–28 July) was shipped to Heeres Gruppe Mitte on the Eastern Front. These two units had 14 'leichte Panzer Jäger 38' in each of three companies organised in accordance with K.St.N.1149 plus three for the Abteilung Stab (headquarters). One Jagdpanzer 38 in each company and two for the Abteilung Stab had a second longer-range Fu 8 radio set for command and control of scattered units. In addition, the Panzer Jäger Abteilung 731 was issued four Bergepanzer 38 to recover damaged and broken-down Jagdpanzers.

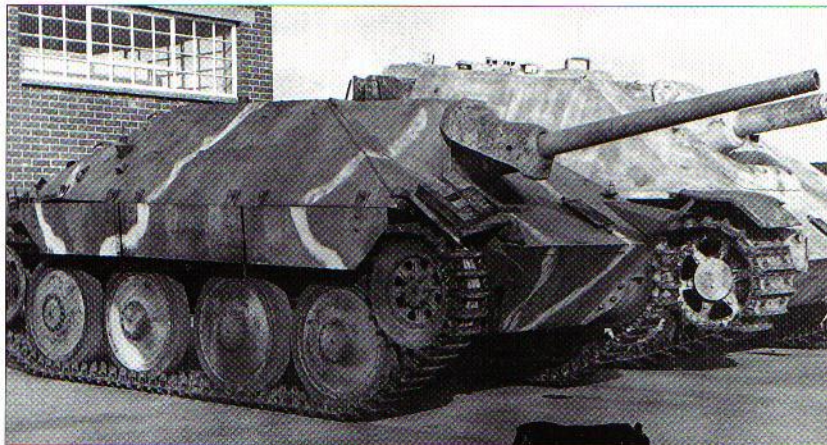
Only three additional Heeres Panzer Jäger Abteilungen were directly issued Jagdpanzer 38: the 741st in September 1944, the 561st in February 1945; and the 744th in March 1945. The 741st was split, with I.Kompanie being sent to the Eastern Front and the rest of the Abteilung sent west, from 22 September 1944, to the Arnhem sector.

The main purpose in producing the Jagdpanzer 38 was not to fill up the independent Heeres Panzer Jäger Abteilungen but to provide each Infanterie Division with its own mobile tank destroyer force. These were to be employed in counterattacks against enemy penetrations and to support the infantry in their own attacks.

**During October 1944 a 'Flamm-Vernichter' replaced the cylindrical exhaust muffler. Attempts to find a lightweight idler lead to the eight-hole dished type having ribs welded in place to provide strength. In October Jagdpanzer 38 were issued to 11 different units including 4.Gebirgs Division for use in the East and 708. Volks Grenadier Division for use in the West. (BMM)**



Therefore the majority of the Jagdpanzer 38 were issued to Panzer Jäger Kompanien organic to Infanterie, Jäger, Grenadier, Kavalerie and Volks Grenadier divisions. From August 1944 to January 1945 each Panzer Jäger Kompanie was equipped with 14 Jagdpanzer 38. Starting in February 1945 and continuing into April, in order to equip a larger number of units, only 10 Jagdpanzer 38 were issued to each company.



**Right front view of the Jagdpanzer 38 now on display at the Tank Museum, Bovington. This Jagdpanzer 38 was captured and examined by the British. Its Fgst.Nr. is 322111, showing that it was completed by BMM at the beginning of December 1944. The hull armour was fabricated by Skoda Pilsen. A dished six-wheel idler was used at this period. (HLD)**

By the start of the Ardennes offensive 18 Panzer Jäger Kompanien, along with the Heeres Panzer Jäger Abteilung 741, had been shipped to the West with a total of 295 Jagdpanzer 38. On 30 December 1944 Heeres Gruppe B reported 131 operational out of 190 Jagdpanzer 38 in 16 Panzer Jäger Kompanien. Heeres Gruppe G reported 38 operational out of 67 in two Panzer Jäger Kompanien and Heeres Panzer Jäger Abteilung 741 – an exceptional record even without considering the overwhelming numerical superiority in Allied armour that they faced on the Western Front.

Due to the interruptions and delays in production of other types of armoured vehicles, the following units were directly issued with the Jagdpanzer 38:

- 16.SS Pz.Gren.Div. (instead of Jagdpanzer IV)
- Pz.Jg.Abt. Jüterbog and Schlesien (instead of Panzer IV/70(V))
- Pz.Div. and Pz.Gren.Div. FHH (instead of Panzer IV/70(V))
- Sturmgeschütz Brigade 236 (instead of Sturmgeschütz III)

In an effort to shore up their allies and in payment for raw materials received, Germany sold or gave their allies armoured fighting vehicles including the Jagdpanzer 38. Plans were made to ship 15 Jagdpanzer 38 in July and 15 in August to Romania. However, production was not sufficient to meet their own needs and Romania never received a single Jagdpanzer 38. As early as September plans were made to deliver Jagdpanzer 38 to Hungary. Although this was delayed, a total of 75 finally went by rail (25 were shipped on 7 December 1944 and arrived on 9 December, 25 shipped on 10 December 1944 and arrived on 12 December and 25 shipped on 12 January 1945 arrived the following day). These were issued to Hungarian Sturmgeschütz Abteilungen, which fought on the Eastern Front under Heeres Gruppe Sued.

A new experiment was conducted when, on 24 January 1945, Panzer Jagd Brigade 104 started to be organised. This unit was to consist of:

- Stab Panzer Jagd Brigade 104 (previously Pz.Brig. 104),
- Panzer Aufkl.Kp. 'Krampnitz',
- Pz.Jagd.Abt.1, Pz.Jagd.Abt.2
- Pz.Jagd.Abt.3
- Pz.Jagd.Abt.4
- Pz.Jagd.Abt.5



Pz.Jagd.Abt.6  
 Stu.Gesch.Lehr.Brig.111  
 Pz.Aufkl.Abt.115  
 Pz.Aufkl.Abt.'München'

Each Panzer Jagd Abteilung was to consist of two Panzer Jäger Kompanien, each with 14 Jagdpanzer 38 and an Aufklärung Kompanie equipped with 16 semitracked armoured vehicles (one Sd.Kfz.251/3, five Sd.Kfz.250/1, five Sd.Kfz.250/3 and five Sd.Kfz.251/21).

Panzer Jagd Abteilung 1, however, was given three instead of two Panzer Jäger Kompanien, two with Sturmgeschütz IVs and one with Jagdpanzer

**Left front view of Fgst.Nr.322111 at Bovington. There is no indication of which unit owned this Jagdpanzer 38. In December 13 different units were issued Jagdpanzer 38 and others were delivered to reserve and replacement groups. This included four Volksgrenadier divisions and one infantry division in the West; 50 were also set aside for the Hungarian Army. (HLD)**

38, along with its Aufklärung Kompanie. The Panzer Jäger Kompanien used to form these Abteilungen were to be taken from the Infanterie Divisionen (21, 129, 203, 542, 547 and 551) and were formed from Personal Einheiten (school companies) (6a, 6b and 9b) who had not received a unit designation and also included two new Kompanien (2. and 3./Pz.Jagd.Abt.510).

Panzer Jagd Brigade 104 was sent to Heeres Gruppe Weichsel on the Eastern Front in late January and February 1945. Instead of playing an infantry support or a counterattacking role, the brigade was ordered to use its Aufklärung elements to search for Russian armoured units and its Panzer Jagd elements to destroy them. Left as a consolidated unit, Panzer Jagd Brigade 104 could have wrecked havoc as a hunter-killer force, but, as all too frequently happened, the individual units became scattered over half of the Eastern Front in order to help plug holes in the line.

On 15 March 1945 the 51 companies of Panzer Jäger on the Eastern Front reported 359 operational Jagdpanzer 38 out of 529. The 26 Panzer Jäger Kompanien on the Western Front reported 137 operational out of 236 and in Italy four Panzer Jäger Kompanien reported 49 operational out of 56. In the last comprehensive strength report before the end of the war, dated 10 April 1945, the Eastern Front reported 489 out of 661 operational, the Western Front 79 out of 101 and Italy 64 out of 76. These consolidated reports were not complete in that the status of many units was not available. But, they do reveal a relatively high operational percentage. This testifies to both the mechanical reliability and the serviceability in combat of the Jagdpanzer 38.

How the Jagdpanzer 38 actually fared in combat was found in the few surviving original German operational reports. They are the only first-hand observations, recorded shortly after the action by the men who fought in them. These reports contain the highest quality of information that can be obtained on the tactical successes and problems encountered by units at the front. Unfortunately American and British combat units did not identify German Sturmgeschütz, Panzerjäger and Jagdpanzer by name, but simply collectively referred to them as 'self-propelled guns'. Therefore, it is not possible to learn from British and American after-action reports what occurred when their tanks encountered the Jagdpanzer 38.

The experience of the first units with the 'leichte Panzer Jäger 38' was recorded as follows in the Nachrichtenblatt der Panzertruppen for October 1944:

‘The “leichte Panzerjäger 38” has passed its test in fire. The crews are proud of this Jagdpanzer and the infantry have faith in it. Especially praised is the “Rundumsfeuer” machine gun. The effective weapons, low profile and well sloped armour make it fully adaptable to both its main roles in combating enemy tanks and supporting infantry in both attack and defence.

‘In a short period, one company destroyed 20 tanks without a single loss. An Abteilung destroyed 57 tanks, of which two were JS 122s at a range of 800 metres. Not a single Jagdpanzer was penetrated by enemy fire. In order to reach their ordered objective, this same Abteilung covered 160 kilometres in one day without a single Jagdpanzer breaking down.

‘On the march and in assembly areas, the best camouflage is obtained by disguising the Jagdpanzer as a bush as long as this reflects the terrain. This camouflage must be attached so that it can be quickly removed in several seconds in order to allow unhindered observation and firing.

‘In combat against enemy tanks, the low profile allows the “leichte Panzer Jäger 38” to quickly open heavy fire in direct sight of the enemy and also to quickly change positions and ambush the enemy with concentrated fire from effective ranges.

‘The frontal armour resists penetration by the Russian 7.62cm anti-tank guns. Up to now, losses have only occurred due to penetration of the sides and rear. It is therefore especially important to only present the strong front to the enemy.

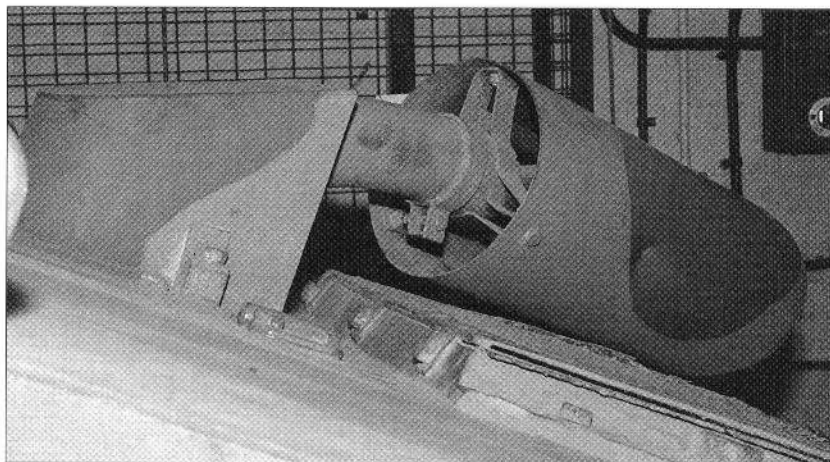
‘To counterattack enemy tanks or massed infantry the Jagdpanzer, in at least platoon strength, are to be held close to the front line but behind zones that will be engaged by enemy artillery barrages in preparation for an attack. Villages, crossroads and other targets frequently selected by enemy artillery should be avoided. Counterattacks that have been quickly mounted after an enemy penetration have always resulted in repelling the enemy and causing him heavy losses.

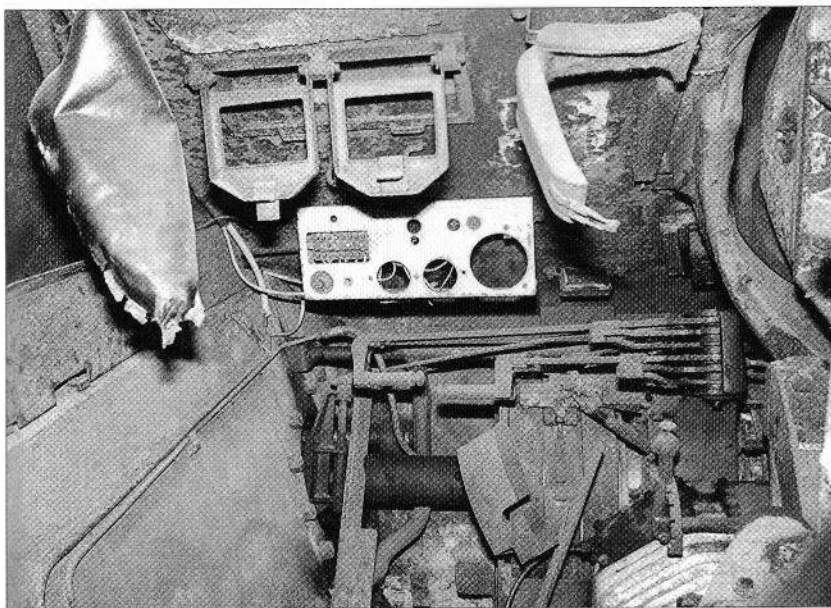
‘The “leichte Panzerjäger 38” is not designed to support attacks along roads bordered by marshy terrain. The Jagdpanzer will be bogged down as soon as it leaves the road. If it stays on the road it cannot



**Close-up detail of the gun mantel of Fgst.Nr.322111. (HLD)**

**A close-up showing the Flammvernichter exhaust muffler cover on the same tank. (HLD)**





A view of the interior of the Jagdpanzer 38 Fgst.Nr.322111 shows the driver's position, now with an incomplete instrument panel and mounts for the two periscopes. (HLD)

This view of the same tank is from the driver's seat and shows the gearbox and traversing gear for the 7.5cm Pak 39. (HLD)



engage targets on the flanks due to the limited traverse of the 7.5cm Pak 39 and it is easily knocked out by flanking fire from enemy anti-tank guns penetrating the thin side armour.

'The "leichte Panzerjäger 38" is too slow to be employed with fully motorised units or for reconnaissance. In these roles it would be too quickly employed and only result in unnecessary losses through mechanical breakdowns.

'In the street-fighting in Warsaw, the "leichte Panzerjäger 38" was very useful

due to its manoeuvrability and its "Rundumsfeuer" machine gun. However, since the loader must open the hatch to reload the machine gun, a second Jagdpanzer should be radioed to provide covering fire.'

The first combat unit to be equipped with the Jagdpanzer 38, Heeres Panzer Jäger Abteilung 731, was employed on the Eastern Front from late July 1944 until the end of the war. Starting out with 45 Jagdpanzer 38, the 731st was sent 10 replacements in November and 20 in December. Their record was 30 out of 33 operational on 1 September, 18 out of 25 on 1 October, 11 out of 26 on 1 December, 12 out of 22 on 1 January, 27 out of 41 on 1 February and 13 out of 28 on 1 March 1945.

On 21 January 1945, the Abteilung commander submitted an after-action report as follows:

'This report covers the period from 1 December 1944 until 21 January 1945, during which the 3.Kurlandschlacht occurred. The Russians

laid down a three-hour artillery barrage to kick off the offensive. Artillery fire blanketed the area as far back as the divisional headquarters and was supported by bombing and strafing aircraft as far back as the corps headquarters. After destroying the front line, the Russians achieved penetrations as deep as the regimental command post but could not achieve a complete breakthrough that could be exploited. Hesitatingly, in packs, the Russian tanks were first

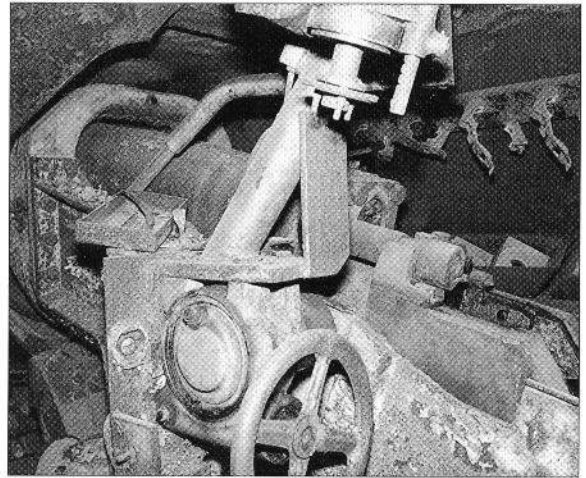
sent in after the infantry achieved their limited penetrations.

'After the loss of the towed anti-tank guns from the artillery barrage, the anti-tank defence consisted of Sturmgeschütze, Jagdpanzer and self-propelled Panzerjäger. At the beginning of the battle, the main body of the 731st was positioned in corps reserve, with one company as divisional reserve for the 201. Infanterie Division. After determining the location of the enemy penetrations in the corps sector, the other two companies were each attached to a division. On the first day of action each company had seven Jagdpanzer 38 of which only about 60 per cent could be maintained operational due to the terrain and the weather.

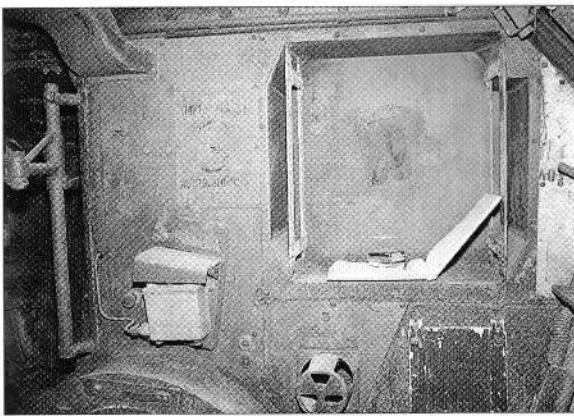
'On the second day, the 3. Kompanie with four operational Jagdpanzer 38 received an order to retake a village named Balki that was situated on a commanding height. Under cover, in a depression, the company advanced to within 50 metres of the position occupied by the accompanying infantry. The main defensive dug-in position held by the enemy was located just to the north-east of Balki. The southern end of Balki was occupied by two known machine gun nests. Since the counterattack should not be scattered, the dug-in positions were attacked first. Four infantrymen accompanied the Jagdpanzer to provide close defence. The rest of the infantry, 15 men, crept up to a hedge and, on the signal of a white flare fired by the commander of the Jagdpanzer, were to roll up the enemy position. The four Jagdpanzer attacked from the flank. The Russians fled from their positions and were effectively engaged with high-explosive shells. During the firefight the infantry attacked and occupied the dug-in positions. Resisting nests were eliminated in close combat. Through this successful counterattack by a small force, the commanding heights were again in our hands. Counterattacks had to be remounted two additional times that day to regain the height.

'After an enemy attack was repulsed by an infantry counterattack, at 1840 hours, the 2. Kompanie with three Jagdpanzer 38 moved up directly behind the main infantry position. Around 2000 hours, for the second time, the enemy mounted a surprise attack with a force of about two or three companies which succeeded in entering our infantry position. The Russians succeeded in capturing a light howitzer battery and penetrated as far as the headquarters of the neighbouring battalion. Again the enemy was repulsed by an immediate frontal counterattack. Well directed fire by both the main guns and the machine guns of the 3 Jagdpanzer 38 caught the enemy in their right flank and the Russians hastily pulled out in confusion.

'The 3. Kompanie with four Jagdpanzer 38 was in a firefight with a JS 122 at a range of 1200 metres. The Russian heavy tank fired 10 rounds at the commander's Jagdpanzer that had taken up a good position on a reverse slope. All ten rounds came directly at the Jagdpanzer but always landed 100 metres too short. The company commander immediately sent a Jagdpanzer off to the right along a concealed route through a



**Another view, this time from the gunner's position, shows the elevation wheel, above which is the mount for Sfl.Z.F.1a gun sight. Ammunition racks along the right hand side can be seen behind the gun breech. (HLD)**



Looking to the rear inside Fgst.Nr. 322111. On the far left is the commander's position with mount for the SF 14Z scissors periscope. On the right is the inset compartment in firewall for mounting the Fu 5 radio set. (HLD)

depression, to attack from the flank. The sixth shot from this Jagdpanzer 38 penetrated the side of the Josef Stalin 122 and it burnt out. This re-emphasised the experience that if possible a single Jagdpanzer 38 should never engage in a firefight. When firing the powder, smoke is blown back and envelops the commander's scissors periscope and strongly hinders the ability to observe and correct the gunner's aim. A second Jagdpanzer can observe the flight and strike of the rounds and relay corrections by radio to quickly destroy enemy tanks.

The "Flamm-Vernichter" on the exhaust has turned out to be unsuitable. It causes the noise from the engine to be heard from long distances. Therefore, it is impossible to warm up the engines in the assembly areas without giving away the starting positions and bringing down enemy artillery fire.

'Altogether it was again proved that the Jagdpanzer 38 successfully accomplished its roles as a fast, mobile tank destroyer and as a support weapon for the infantry in both attacks and counterattacks. On the first day of action, within two hours, the Abteilung had already achieved the following results: one Josef Stalin 122, one T 34, one 7.62cm anti-tank gun, eight machine guns and three mortars destroyed, 60 enemy killed and four machine guns and two enemy captured.'

However, things were not going as smoothly as the above report would infer. Sending half-trained units to the front equipped with a makeshift Jagdpanzer would have its repercussions, as related in the following report, sent to the General der Panzertruppen West in November 1944:

'Panzer Jäger Sturmgeschütz Kompanie 1708 was sent by rail to the 708. Volks Grenadier Division and unloaded in Rothau during the morning of 13 November. The company was converted from 8.8cm Pak mot.Z (towed anti-tank guns) and possessed 14 Jagdpanzer 38 and an infantry escort platoon of 60 men equipped with Maschinepistolen.

'The commander reported to the division while the company was unloading and immediately received combat orders at 1700 hours on 13 November. Although advised by the company commander of the necessity of reconnaissance and co-ordination, immediate action without reconnaissance or any knowledge of the terrain and without co-ordination with the Grenadiere was forced by the tactical situation. For this attack, the 1708th was assigned to the commander of a very weak infantry battalion. The attack didn't start as planned early on the 14th because the promised infantry reinforcement didn't arrive on time. About 1330 hours the Americans attacked with superior strength and were halted by the Jagdpanzer counterattack.

'The request of the company commander to pull back several kilometres during the night of 14/15 November to take on ammunition and fuel and needed maintenance was not approved. The Jagdpanzers were required to take over defence of a village at night. Only a very weak infantry guard was available. The attack was to be resumed at 0700 on 15 November accompanied by the Sturmbattalion on the left. Because the Sturmbattalion wasn't in position, this attack was delayed.



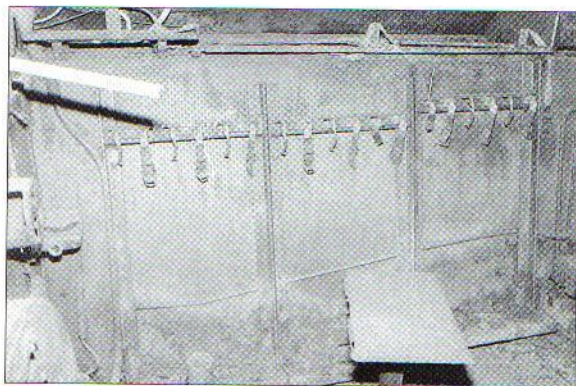
'At 0915 hours the Americans started to attack after the German main battle line was blinded by smoke. As the smoke cleared, the Americans were only 40 to 50 metres in front of the Jagdpanzer on the left flank. The Jagdpanzer immediately opened fire. Two Jagdpanzer were quickly knocked out by the infantry after the sights were hit and both commanders killed by head shots. At the same time about six Shermans and enemy infantry attacked from the left flank. Shortly thereafter eight Shermans struck the front. Another Jagdpanzer 38 was destroyed by the enemy infantry. A platoon leader's Jagdpanzer became stuck and had to be blown up. Then American infantry and anti-tank guns attacked from the right flank.

'The battalion commander ordered the unit to pull back fighting to a small wood. Because another Jagdpanzer 38 was stuck, Panzer Jäger Kompanie 1708 could not follow immediately. Their own infantry escort platoon attempted to hold off the assaulting enemy infantry and took heavy losses. After the Jagdpanzer 38 was pulled free, Panzer Jäger Kompanie 1708 pulled back and reached the wood lot but the German infantry battalion was no longer there. The Panzer Jäger Kompanie only had the rest of their infantry escort platoon around them. They could not pull out to the right because of a German minefield. To their rear was a creek, which the Jagdpanzer 38 could not cross. The company commander decided to break through to a village on the left. Shortly after starting out of the woods, two Jagdpanzers took direct hits and the Jagdpanzer of the company commander was hit in the drive sprocket. All three of these Jagdpanzers immediately caught fire. Also within a short time the last two Jagdpanzers were hit from the flank.

'Panzer Jäger Kompanie 1708 lost two officers missing, 10 men dead and seven men wounded from the Jagdpanzer crews. The infantry escort platoon lost two officers and 30 men. All nine Jagdpanzer 38 that went into action were lost. Only five Jagdpanzer 38 needing long-term repair (two transmission, one final drive, and two oil cooler damage) were left.'

This was not an isolated incident, as revealed by the response of the General der Panzertruppen to this report. He stated that this was the second time in two weeks that a newly refreshed Panzer Jäger Sturmgeschütz Kompanie had been completely wiped out within several days. He did not know how much blame could be placed on inadequate training, but did know that the tactical commanders had mismanaged the employment of these units.

The Jagdpanzer 38 was too little and too late to have had any chance of reversing the deteriorating situation in which the German Army found itself late in the war.



This view shows the ammunition racks alongside the driver, gunner and radio operator on the left side. (HLD)

## VARIANTS

### **Bergepanzerwagen 38 (Sd.Kfz.136)**

As originally produced, the Bergepanzerwagen 38 was created by lowering the superstructure sides of the Jagdpanzer 38 chassis, leaving



**A final view of Jagdpanzer 38 Fgst.Nr. 322111 shows the motor compartment viewed from the left side of the vehicle. The motor is a 7,754cc six-cylinder in line overhead valve 'epa AC 2800'. (HLD)**

an open-top crew and equipment stowage compartment. A large bracket was bolted across the hull rear, to which was welded a centred tow coupling for attaching the rigid tow bars. Two of the base supports for the jib-boom were fitted inside at the upper rim of the superstructure, and the third base support was welded onto the outside on the right.

At first only cables and pulleys were carried by the Bergepanzerwagen 38 for pulling out stuck Jagdpanzers. Several attempts were made to design a winch and spade for it, including a front-mounted spade with the winch cable fed out through a slit in the glacis plate. The design

selected for production (from February 1945) had a pivoting spade mounted on the rear and a winch mounted inside on the right, with the steel cable fed out to a guide roller on the right rear.

The first eight Bergepanzerwagen 38 were completed in May 1944 and a total of 181 had been produced by the end of April 1945. Instead of being assigned their own Fgst.Nr.Serie, Bergepanzerwagen 38 were stamped with Fgst.Nr. mixed in with the Jagdpanzer 38 Fgst.Nr. since they were assembled side by side at BMM in Prague.

Under K.St.N.1160a dated 1 November 1944, one Bergepanzerwagen 38 with a Panzerbergeanker (tank retrieval anchor) was authorised for the

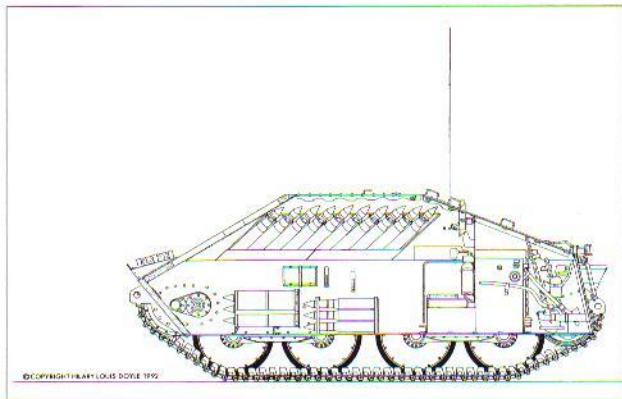
Stab und Versorgungs-Zug (headquarters and supply platoon) of the Panzerjäger-Abteilung in each Infanterie, Gebirgs (mountain) or Jäger Division equipped with Jagdpanzer 38. The Panzerbergeanker was not to be issued if the Bergepanzerwagen 38 was fitted with a winch. Also when a Panzerjäger-Abteilung of a Panzer or Panzer Grenadier Division was issued with Jagdpanzer 38 as authorised under K.St.N.1152(fG) dated 1 November 1944, the Versorgungs Kompanie was to be issued Bergepanzerwagen 38 (Sd.Kfz.136).

In addition to the modifications introduced in the Jagdpanzer 38 series, changes introduced during the Bergepanzerwagen 38

production run included: welding brackets to the sides for stowing a large wooden unditching beam, the rods for the jib-boom crane, and the rigid towing bars in June 1944; and reducing the frontal armour thickness to 30mm and installing a winch and spade in February 1945.

In July 1944 tests were conducted at Kummersdorf to determine the ability of the Bergepanzer 38 to tow the Panzerjäger 38. Problems were encountered in that the 30-ton capacity tow bars did not fit on the angled towing eyes and the centred tow shackle was too close to the rear plate to insert the pin. The side towing eyes (which were extensions of the 20mm thick hull side plates) were too weak. Three broke off and it was recommended that they be reinforced to a thickness of 30mm.

Bergepanzer 38 (Fgst.Nr.321072) was used to tow a leichte Panzerjäger 38 (Fgst.Nr.321011 weighing 14.6 metric tons) around



**1:76 left side section view drawing of a Jagdpanzer 38 produced in December 1944. This drawing shows the ammunition racks on the right side of the Pak. The commander's seat is at the rear of the fighting compartment, while the rear right of the engine compartment is used for tool and equipment stowage. (Hilary Louis Doyle)**

the varied-terrain test track at Kummersdorf. After 39 kilometres in 12.25 hours (an average of 3.2km/hr) the transmission failed. Third gear could only be used on level roads. Second gear was needed on level terrain and first gear on slight inclines. The Bergepanzer 38 could not pull the load up a 4 degree slope. Fuel consumption was 7.5 litres per kilometre – equal to 37.3 kilometres on one tank of 280 litres of petrol.

A second Bergepanzer 38 (Fgst.Nr.321073) was used to tow the first Bergepanzer 38 (Fgst.Nr.321072, weighing 13.1 metric tons – because no operational Panzerjäger 38 were available) on dry roads to measure the towing capacity. A total of 184 kilometres were achieved at an average speed of 7.2km/hr before the motor failed. Fuel consumption was 4.48l/km – equal to 62.5km on one tank of petrol.

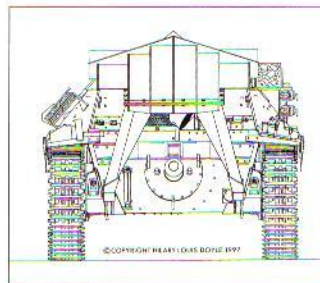
Further tests using Bergepanzer 38 (Fgst.Nr.321072) were conducted after the transmission was repaired, this time using an experienced driver. A total of 474 kilometres were covered in varied terrain (average speed 8.9km/hr and fuel consumption 4.8l/km) and 277 kilometres on cobblestone roads (average speed 10.4km/hr and fuel consumption 2.75l/km). It was concluded that it was possible for the Bergepanzer 38 to tow the 'leichte Panzerjäger 38' for short distances on level terrain, but it was not capable of towing a 'leichte Panzerjäger 38' uphill, in sand or in heavy clay.

### Jagdpanzer 38 starr

Plans for the Jagdpanzer 38 with a rucklaufloser (recoilless) gun never advanced past the experimental stage. This was not a true recoilless gun in the sense of firing a recoil-free rocket-propelled round from an open tube. It was merely a rigid mount for a normal gun firing normal ammunition but without a recoil cylinder. Unbuffered, the recoil was directly absorbed by the entire vehicle.

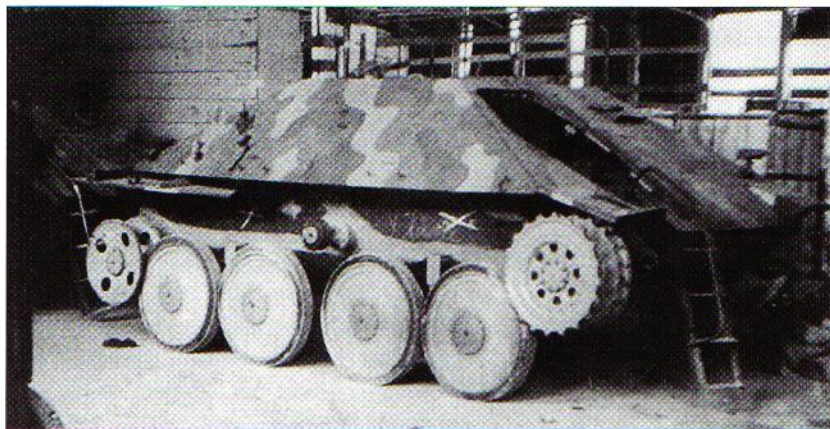
Following a review of the conceptual design in December 1943, the decision was made to mount a gun in a recoilless mount in the final version of the leichte Sturmgeschütz 38(t). For the interim, the 7.5cm Pak 39 L/48 was to be used because the recoilless mount was still being developed and testing was not completed. A 7.5cm L/48 gun tube, rigidly mounted in a Pz.Kpfw.IV chassis, had been tested at Kummersdorf proving grounds in September and December 1943. Following the test firing of a 7.5cm L/48 gun rigidly mounted on a light Pz.Kpfw.II chassis at Kummersdorf in January 1944, Wa Prüf 4 reported that further experiments would include the development and testing of a gun tube mounted rigidly in a Panzerjäger 38(t).

On 15 May 1944 Wa Prüf 4 reported that the functional test firing of a rigidly mounted gun in a 38(t) chassis would begin on 11 May. On 1 August 1944 Alkett reported that



**1:76 scale rear view drawing of a Bergepanzerwagen 38 assembled in February 1945. It is fitted with winch and spade. (Hilary Louis Doyle)**

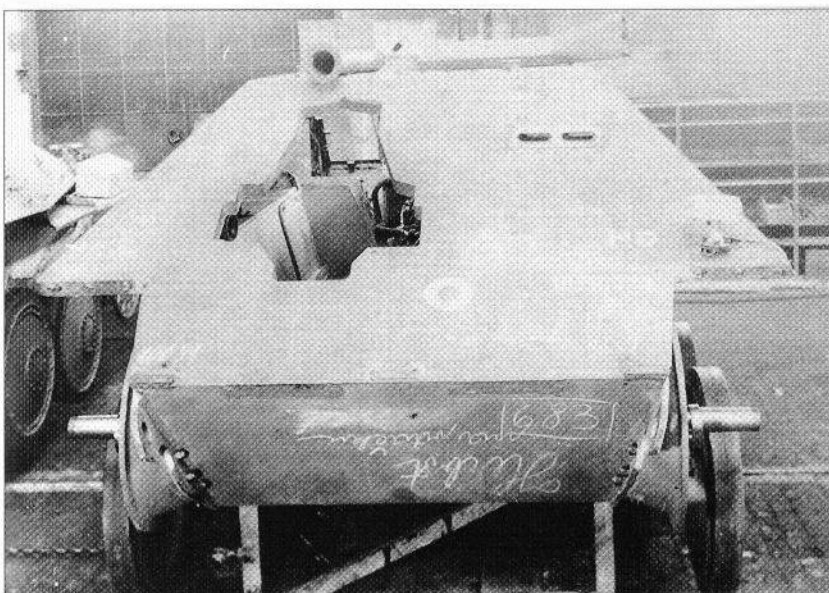
**Incomplete Jagdpanzer 38 at Skoda Königgrätz at the end of the war. Skoda welded strengthening pieces to the towing brackets to prevent breakage. The dished idler wheel with four holes was standard for Skoda late production. The spade and sledgehammer were removed from the engine compartment and clips were added to stow them outside. The right hand side radiator filler hatch was welded closed and incorporated in the main engine hatch. All hinges were welded rather than bolted to simplify production. In April 1945 Jagdpanzer 38 had been delivered, typically in batches of 10, to units such as the 1. and 2. Marine Division in the West and 715. Infanterie Division in the East. (APG)**





Partially assembled by Skoda, Jagdpanzer 38 Fgst.Nr.323814 was collected by the US Forces at the end of the war and taken to the Aberdeen Proving Ground, Maryland, USA. It is still on display at the Ordnance Museum in Aberdeen, Maryland. (NA)

One of the 0-Serie Jagdpanzer 38 starr, Fgst.Nr.321683, on the production line at BMM in October 1944. The Jagdpanzer 38 starr was to have a rigid gun mounted and therefore required a much smaller opening in the front plate. (BMM)



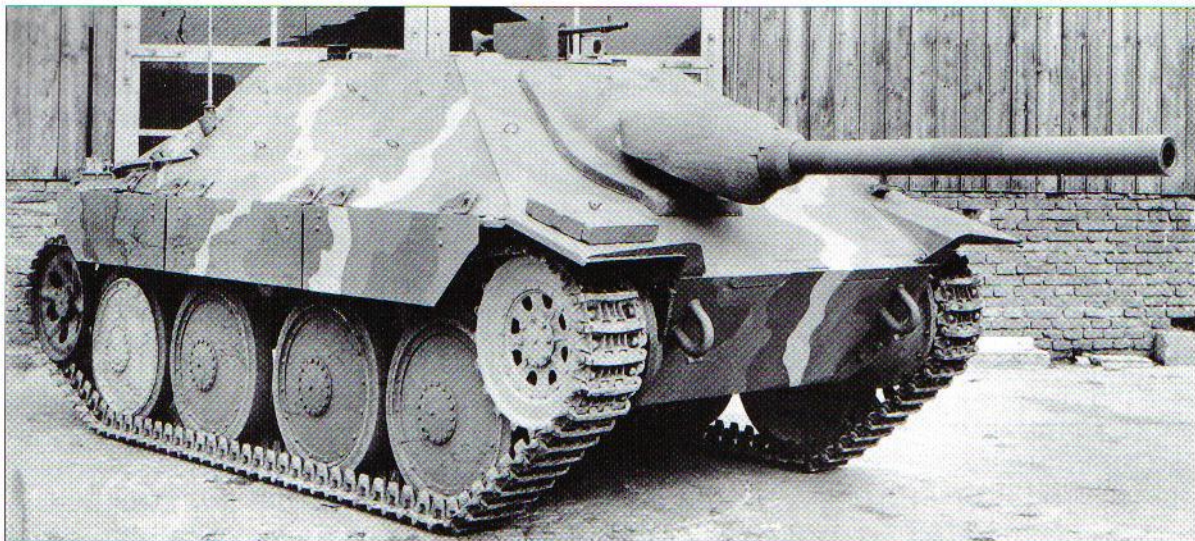
1,000 rounds had been fired from a gun rigidly mounted in a Sturmgeschütz 38(t) and that all of the previous experience was being incorporated into a new design currently being worked on. The first trial piece was to be mounted in a 38(t) by the end of August. Alkett recommended that production of the '0-Serie' of 100 vehicles, ordered to start immediately, should be delayed until results

from test firing the new design were available. On 11 August 1944 Wa Prüf 4 reported that plans were made to test fire 1,000 rounds from the newly designed rigid mount in the Sturmgeschütz 38(t) starting in the first week in September 1944. On 21 September 1944 Wa Prüf 4 was informed that parts of the gun sights still continuously broke during test firing.

In addition to the original Jagdpanzer 38 converted for test firing, two more were diverted to Krupp/Alkett for conversion to rigid mounts in September. A '0-Serie' of 10 Jagdpanzer 38 starr with rigid mounts (Fgst.Nr.321679-321683 and 322370-322374) were completed at BMM in December 1944/January 1945. A final Jagdpanzer 38 starr with an 8-cylinder Tatra diesel engine was ordered on 22 March 1945 to be demonstrated to Hitler in mid-April 1945.

When Panzer Kompanie Berka was formed on 31 March 1945 from Versuchs Abteilung Berka for immediate defence of the area, they possessed one rucklaufloser Jagdpanzer 38 that had been sent

to the Berka proving grounds for testing. That same day Hitler telephoned and ordered that this Jagdpanzer 38 be immediately destroyed to prevent its capture by the Allies. On 29 April 1945 a request was made to remove the gun sights and traversing gear from the eight Jagdpanzer 38 starr located at the training centre in Milowitz because these vehicles were not employable in combat. These components were urgently needed to complete a few more Jagdpanzer 38 at the assembly plants.



## THE PLATES

### A1: Jagdpanzer 38, Fahrgestell Nr. 321003, March 1944

This is one of the first three Sturmgeschütz 38(t) vehicles that Oberst Thomale ordered to be completed by March 1944. Assembled by BMM in Prague, it was accepted by Waffenamts inspectors in April 1944.

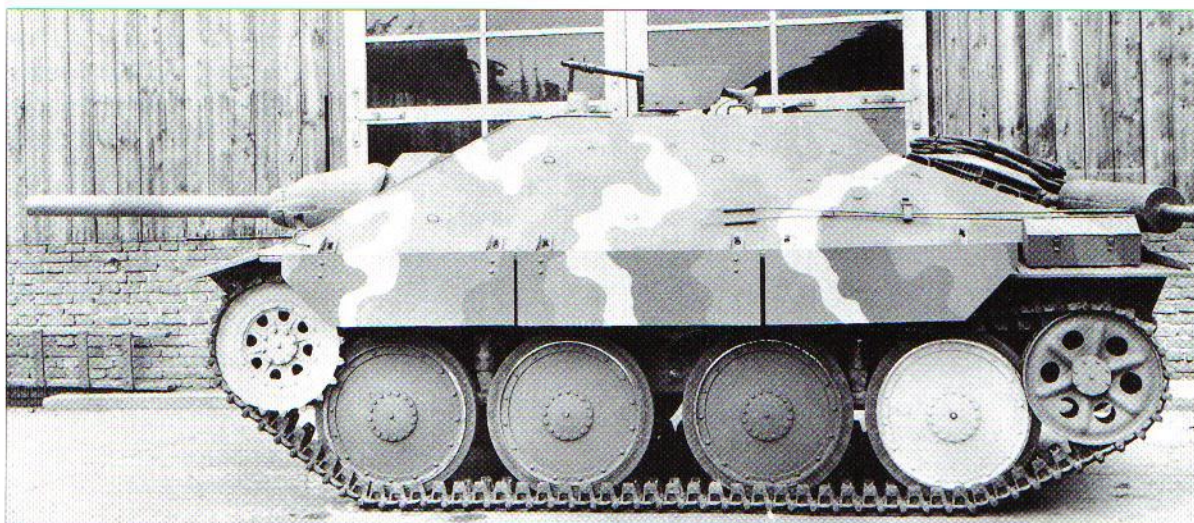
The first three Sturmgeschütz 38(t)s had rams-horn towing brackets and a pistol port in the front plate. The external armour mantle for the Kugellafette (ball mount for the gun) had extended flanges with seven external bolts to secure it to the front plate.

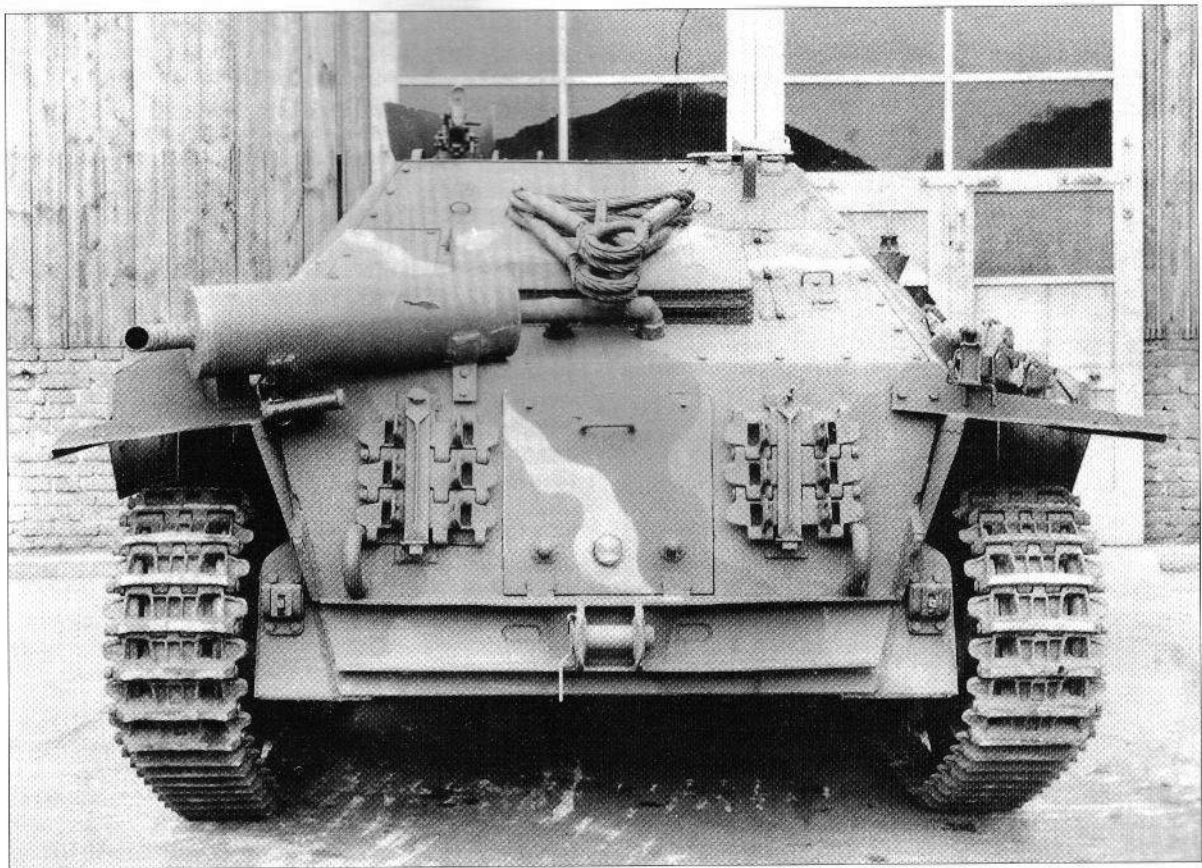
Jagdpanzer 38 were never coated with Zimmerit (anti-magnetic paste), but at the assembly plant a base coat of Dunkelgelb – RAL 7028 (dark yellow) paint was sprayed over the undercoat. As a test vehicle there was no need to apply camouflage patterns.

ABOVE Right front view of the last Jagdpanzer 38 starr, Fgst.Nr.322971, that was prepared for a demonstration planned for Hitler in April 1945. The rigid gun required a smaller Kugellafette (ball mount) and a new mantle. U shaped tow brackets replaced the side extension tow lugs. (BMM)

RIGHT The rear view shows that Fgst.Nr.322971 is quite different to the production series of Jagdpanzer 38 due to the fitting of a Tatra 928 V-8 cylinder air-cooled diesel engine which produced 180 PS (metric horsepower) at 2,000rpm. (BMM)

BELOW Side view of Jagdpanzer 38 starr, Fgst.Nr.322971. The commander was provided with a rotating periscope, which necessitated an extension of armour over his compartment. The gun sight was a WZF 2/2. (BMM)





#### **A2: Jagdpanzer 38, May 1944**

This Jagdpanzer 38 was built by BMM in May 1944. It already featured a lighter Kugellafette and external mantle that was secured by only two external bolts.

Units were authorised to apply camouflage patterns of stripes and patches of Olivgrün – RAL 6003 (dark olive green) and Rotbraun – RAL 8017 (dark red brown) over the base coat of Dunkelgelb – RAL 7028 (which was sprayed over the undercoat before leaving the assembly plant). These colours were supplied in 2kg tins of paste that could be appropriately thinned by the troops. However, many of these initial production Jagdpanzer 38 were retained by training schools.

#### **B1: Jagdpanzer 38 – Befehlswagen, September 1944**

This Jagdpanzer 38 was built by BMM in August/September 1944 and featured the new lighter gun mantle. It was fitted out as a Befehlswagen (command vehicle). Befehlswagen had an Fu 8 radio, mounted in the left side sponson, in addition to the normal Fu 5 mounted in the cut-out in the firewall (between the motor compartment and the crew area). The antenna for the long-range Fu 8 radio was the Sternantenne d, which was mounted on a base with a large porcelain insulator. An armour cover was bolted onto the left side to protect this porcelain insulator. The 2-meter rod antenna for the Fu 5 radio set was located in the normal position on right rear.

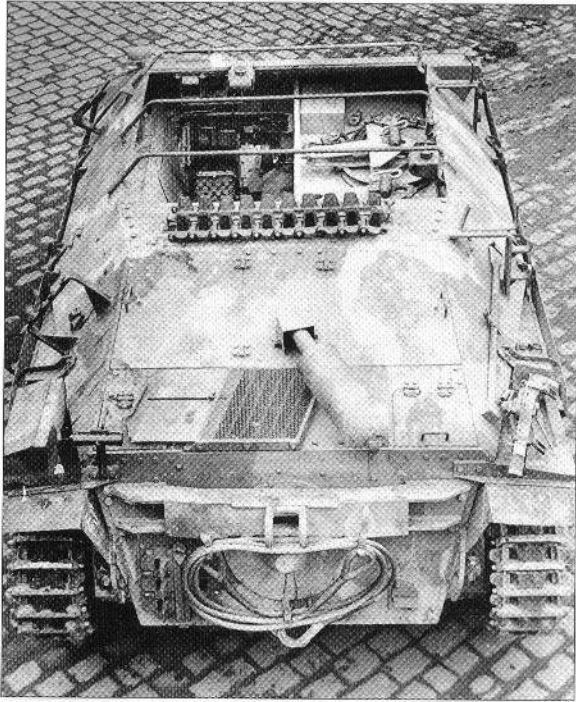
From August 1944 camouflage was applied at the factory. Often referred to in post-war publications as 'ambush' camouflage, it consisted of a thin coat of base Dunkelgelb – RAL 7028 (dark yellow) overpainted with well thinned stripes and patches with sharp outlines of Olivgrün – RAL 6003 (dark olive green) and Rotbraun – RAL 8017 (dark red brown). To simulate sunlight passing through foliage, spots of contrasting colour paint were applied over the stripes and patches.

A Jagdpanzer was not necessarily issued to a unit immediately in the same month it was completed. In August units such as the 20. SS and the 15., 76. and 335. Infanterie Divisions all received Jagdpanzer 38.

#### **B2: Bergepanzer 38, Fgst. Nr. 321822, November 1944**

The first Bergepanzer 38 were completed in May 1944. Bergepanzer were built side by side with Jagdpanzer 38 at BMM and did not have their own Fahrgestell Nr. series. In June the brackets for carrying the unditching beam, the jib-boom crane arms and rigid towing bars were added.

By October the 'ambush' camouflage had been replaced at BMM by a new scheme. This Bergepanzer 38 was painted at the factory with a thin coat of Rot – RAL 8012 (red primer) with stripes and patches of well-thinned Dunkelgelb – RAL 7028 (dark yellow) and Olivgrün – RAL 6003 (dark olive green) applied over at least half of the primer base. The interior side walls were painted in Elfenbein – RAL 1001 (ivory) and the



**ABOVE** Bergepanzerwagen 38 Fgst.Nr.321822 was completed by BMM in November 1944. Bergepanzerwagen were built side by side with Jagdpanzer 38 at BMM and did not have their own Fgst.Nr. series. A number of improvements had been introduced in June 1944, including brackets for carrying the unditching beam, the jib-boom crane arms and rigid towing bars were added. (BMM)

floor and part of the lower sides in the base were primer Rot – RAL 8012 (red primer).

**C: Bergepanzer 38, Fgst. Nr. 322678, February 1945**

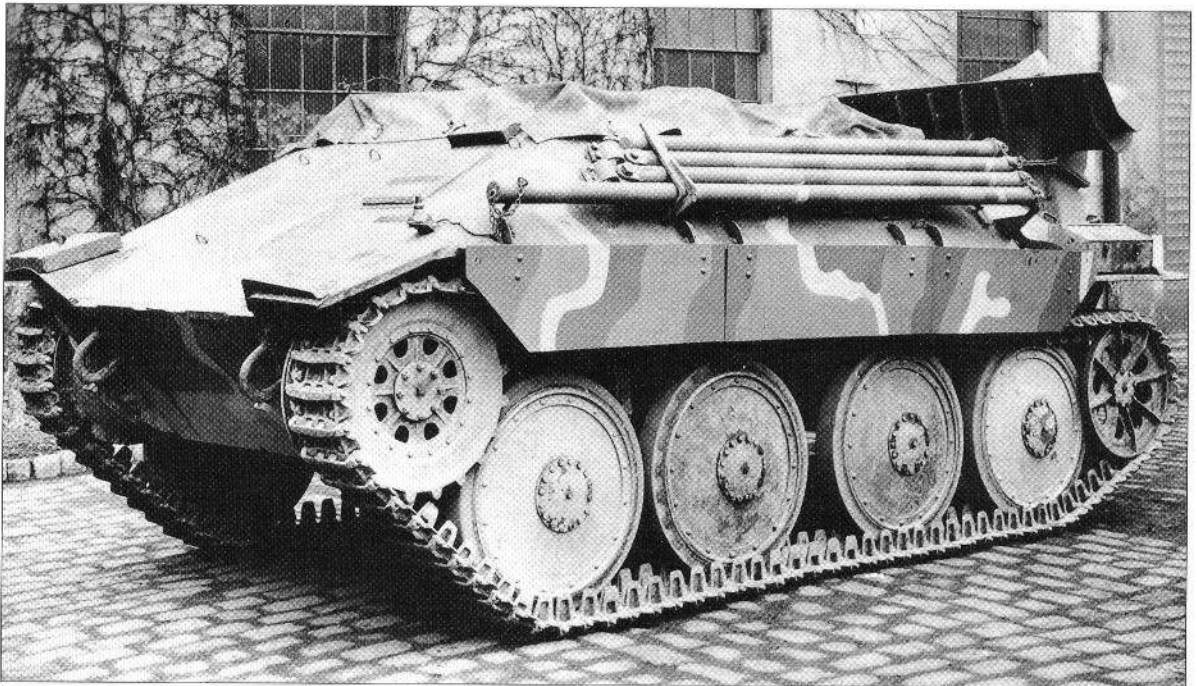
In February 1945, BMM completed this Bergepanzer 38, which features all of the latest improvements. The front armour plate was reduced to 30mm and a large vision port added, as well as the driver's periscopes. A winch was mounted in the rear right of the crew compartment. The cable was fed out to a guide roller on the rear and a spade was added.

Camouflage patterns applied to some Jagdpanzer 38 at the factory during the winter of 1944–45 consisted of a thin base coat of Rot – RAL 8012 (red primer) about half of which was overpainted with well thinned stripes and patches, with sharp outlines, of Dunkelgelb – RAL 7028 (dark yellow) and Weiss – RAL 9002 (white). Some patches of well thinned Olivgrün – RAL 6003 (dark olive green) were applied on lower areas.

**D: Jagdpanzer 38, Fgst. Nr. 322111, December 1944**

Jagdpanzer 38 Fgst.Nr. 322111, which was brought to England for examination by the School of Tank Technology in Chertsey and is now on display in the Tank Museum in Bovington.

**BELOW** The final configuration can be seen in this Bergepanzerwagen 38, Fgst.Nr.322678. This was completed by BMM in February 1945. The front plate was reduced from 60mm to 30mm, saving considerable weight. A large opening vision port was provided for the driver. U-shaped towing brackets replaced the side extension tow brackets, and a winch was introduced for the first time. (BMM)



From October 1944 the camouflage scheme at BMM was a thin base coat of Rot – RAL 8012 (red primer) with stripes and patches of well thinned Dunkelgelb – RAL 7028 (dark yellow) and Olivgrün – RAL 6003 (dark olive green) applied over at least half of the primer base. Matt black stripes were painted on the front plate to act as decoys to protect the driver's periscopes.

The upper interior of the fighting compartment was painted in Elfenbein – RAL 1001 (ivory) while lower areas and floors were left in Rot – RAL 8012 (red primer). Radio sets were dunkelgrau – RAL 7021 (dark grey). The motor compartment was also Rot – RAL 8012 (red primer).

The 7.5cm Panzergranate 39 (A.P.C.B.C./H.E. shell) was identified by having the projectile painted Schwarz – RAL 9005 (black) with a Weiss – RAL 9002 (white) cap. The 7.5cm Sprenggranate (high-explosive shell) was identified by having the projectile painted in Olivgrün – RAL 6003 (dark olive green). Most of the 7.5cm Pak 39 ammunition was being manufactured with brass-coated steel rather than brass shell cases.

Unfortunately, to date no record has been found as to the unit with which this Jagdpanzer 38 served. Although built in December 1944, there is no guarantee that it was issued in that month. Units such as the 245. Infanterie Division, 16., 79., 183. and 246. Volksgrenadier Divisions, all serving in the west, received Jagdpanzer 38 in December 1944.

#### **E: Jagdpanzer 38 starr, Fgst. Nr. 322971, April 1945**

This Jagdpanzer 38 starr was the last one ordered, on 22 March 1945. It was fitted with all the latest improvements, including an 8-cylinder Tatra diesel engine. It was intended for a demonstration to Hitler in mid-April 1945.

#### **F: Jagdpanzer 38, August 1944**

This was one of the first Jagdpanzer 38 captured by Allied forces. Its identification number '233' indicates that it was manufactured by Skoda in August 1944. The new lightweight mantle is matched to the Kugellafette Ausf. IV.

The radiator filler-hatch was not yet been introduced but the heat guard for the exhaust muffler has been deleted. To speed production, this batch of idler wheels were only drilled with 6 holes.

The Jagdpanzer 38 of this period were delivered with a base coat of Dunkelgelb – RAL 7028, to which the troops were authorised to apply camouflage patterns (see A1 and A2).

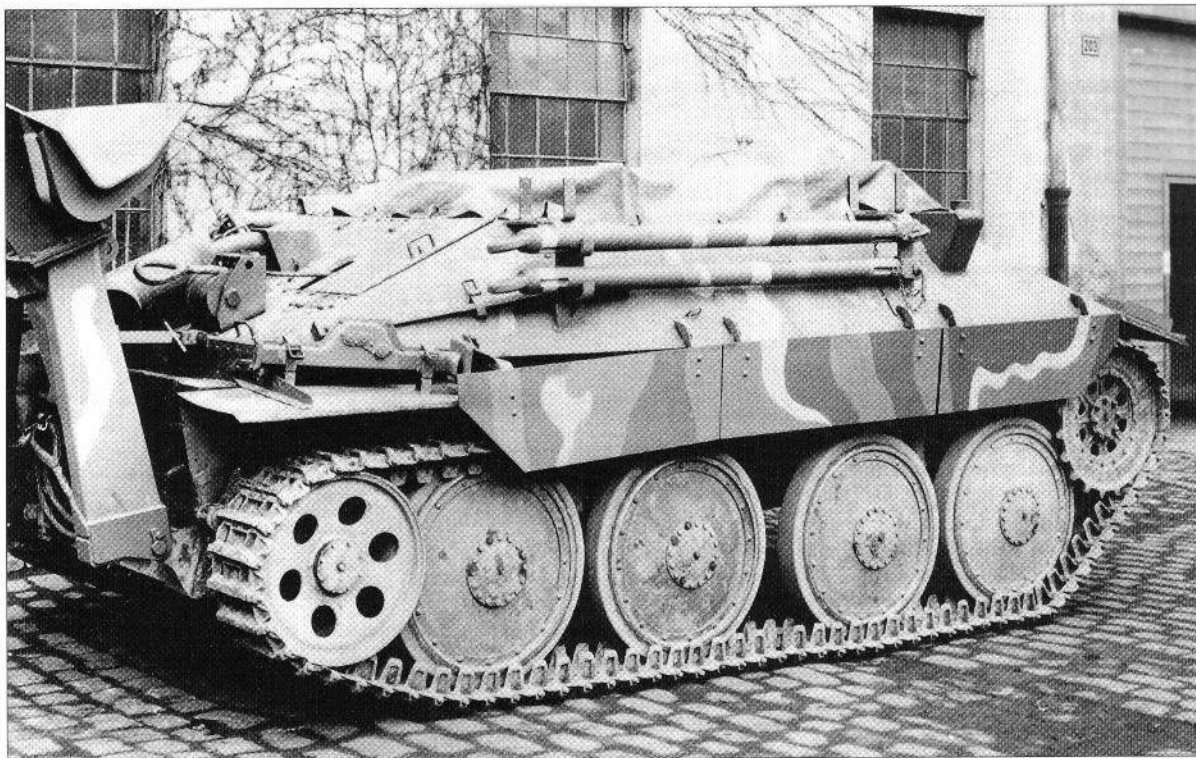
In the west, two units – the 79. and 257. Infanterie Division – were equipped with Jagdpanzer 38 in August 1944 while various Volksgrenadier Divisions were equipped in September.

#### **G: Jagdpanzer 38, Fgst.Nr. 323814, May 1945**

In late May 1945 the US Forces collected this Jagdpanzer 38 for shipment to Aberdeen Proving Ground (APG) for evaluation. It is still on display at the APG museum. It was built by Škoda in Königgrätz and is seen here in the camouflage pattern which was applied to some Jagdpanzer 38 at the factory during the winter of 1944–45 (see Plate C).

Fifteen different units were issued with Jagdpanzer 38 in April 1945. These included the Infantry Divisions 'Scharnhorst' and 'Ulrich v. Hutten' and 38. SS 'Nibelungen'.

**BELOW Right rear side view of Bergepanzerwagen 38 Fgst.Nr.322678 with the spade raised. The guide roller for the winch cable is on the right of the Flammvernichter. (BMM)**





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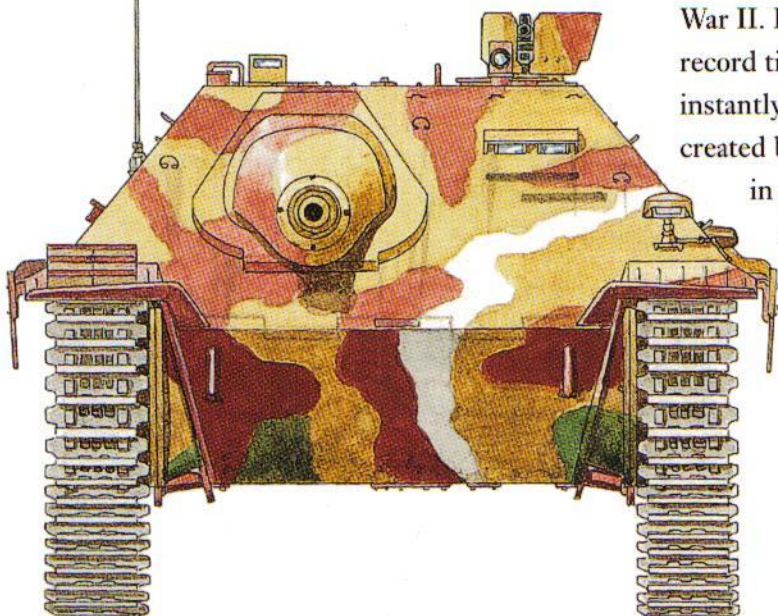
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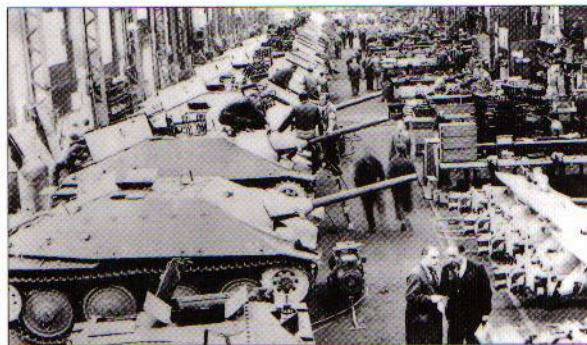
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