

THE SPIELBERGER GERMAN ARMOR  
AND MILITARY VEHICLE SERIES

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# Heavy Jagdpanzer

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Development • Production • Operations



**Walter J. Spielberger**

**Hilary L. Doyle**

**Thomas L. Jentz**



A SCHIFFER MILITARY HISTORY BOOK

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Walter J. Spielberger, Hilary L. Doyle & Thomas L. Jentz

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Schiffer Military History  
Atglen, PA

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The sometimes poor quality of the pictures is a result of the age of the photos.

The sketches by Hilary L. Doyle, drawn in 1/24 scale, were reduced in size to approximately 1/35 scale.

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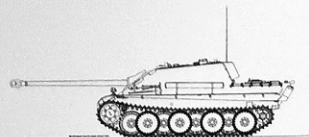
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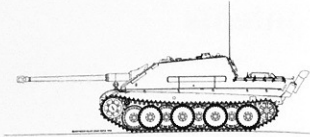
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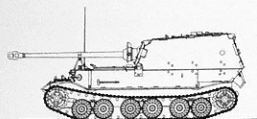
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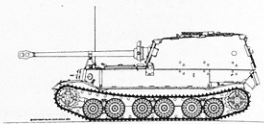
Jagdpanther (early version), p. 12



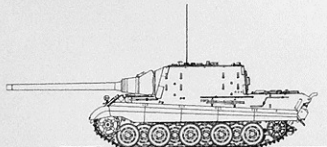
Jagdpanther (late version), p. 38



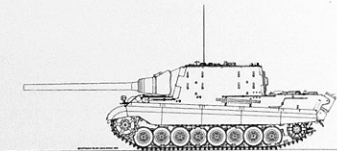
Ferdinand/Elefant (early version), p. 72



Ferdinand/Elefant (late version), p. 100



Jagdtiger (Henschel running gear), p. 154



Jagdtiger (Porsche running gear), p. 142

## Foreword

The volume *Light Jagdpanzer* is now followed by a compilation on the heavy vehicles of this category. Their direct origin as variants of the well known Panther and Tiger tanks has also made them known, despite their small numbers. They were the vehicles that carried the outstanding antitank weapons, the 8.8 cm and 12.8 cm antitank cannons, among the best of their genre of all warring nations.

Their heavy armor did much to safeguard the lives of the crews. Their superior firepower, along with their armor protection, brought a weighty disadvantage: The vehicles became too heavy. The engineers' equipment proved to be insufficient, and the recovery and towing services could no longer do their job.

In addition, their highly evolved technology was very sensitive. In the end, it was the cause of more breakdowns than enemy action.

The Ferdinand/Elefant and the Jagdtiger very clearly overstepped the weight boundaries that guaranteed successful action.

They could be transported only on specially built railroad cars, which were targets of more and more Allied air attacks.

The expensive technology, including the gasoline-electric drive that Prof. Porsche had to use to make his vehicles somewhat mobile, did not meet the wishes of the soldiers for simplicity and operability of the vehicles in action. Their complaints are shown clearly in this volume.

Since the development and production of these vehicles took place in the last war years, inherent faults and production gaps caused by air raids resulted in very obviously low production statistics, especially for the *Jagdpanther* and *Jagdtiger*. The troops themselves had to experience what was necessary to keep the vehicles ready for action.

When the infrastructure of the German Reich collapsed totally, these heavy armored vehicles were more and more of a burden, as they could not fulfill the demands placed on them.

We thank Mr. Karlheinz Münch for allowing the publication of many hitherto unpublished pictures.

Walter J. Spielberger, Hilary L. Doyle, Thomas L. Jentz

## Jagdpanther

Among the best antitank weapons of World War II was the 8.8 cm Flak gun of the German *Wehrmacht*. Although this gun was not originally foreseen as an antitank weapon (Pak), during the war years a whole series of variations developed, including tank and antitank cannons. The next chapter describes the "eight-eight" in detail. The mobility of this weapon, originally planned for motorized towing, left something to be desired, so that the *Wehrmacht* soon looked for a usable self-propelled mount. The

Army Weapons Office decided on August 3, 1942, to combine the new 8.8 cm Pak with the chassis of the Panther tank. The first development contract went to the Krupp firm in Essen. At this time Krupp was already working on mounting the 8.8 cm gun on a modified Panzer IV tank chassis. In these tests the firm determined that the Panther chassis had to be changed basically for this use. It was not possible for Krupp to supply the required design drawings by January 1943. The planned series production was to begin in July 1943. The original plans show a 35-ton vehicle with the 8.8

cm Pak L/71 as the primary weapon, and an MG 42 and two MP 40 as additional armament. The traversing field of the main weapon was 14 degrees to either side; the elevation field reached from -8 to +14 degrees. Krupp planned vertical armor plates 80 mm thick, plus 50 mm plates at a 60-degree angle. The side armor was to consist of 40 mm plates at a 30-degree angle. The plans made the vehicle's height 2400 mm, and its length 9000 mm.

During a conference in the Reich Ministry of Armament and War Production on October 15, 1942, it was decided to turn further production over to Daimler-Benz. This firm was also to begin producing the vehicles in the summer of 1943. Krupp was to support Daimler-Benz in designing, but maintained the responsibility for developing and storing the primary weapon. Although Krupp officially had nothing more to do with the development of the tank destroyer, representatives of the firm displayed a full-size wooden



The Panther Tank.



Comparison of light and heavy tank destroyers Tank Destroyer 38 (chassis no. 322111) and Jagdpanther (chassis no. 303101) are now displayed in Great Britain.



model of their design on November 16, 1942. The model, with the low silhouette, showed little similarity to the later *Jagdpanther*.

A conference at Daimler-Benz on January 5, 1943, determined further technical details of the "8.8 cm assault gun." For example, the thickness of the upper front armor was to be 100 mm, while the lower part was to be 60 mm thick—both with an angle of 55 degrees. The roof, floor, and rear plates were to be 33 mm thick. The cannon shield was made of molybdenum-free cast steel, and was screwed to the front armor—easily removable. If shifting and steering gears could be extended through the opening for the cannon, the Daimler-Benz designers suggested that the roof be welded on fast. The driver looked through two periscopes instead of one sight block. He could also observe, if necessary, through the side "pistol loopholes."

In mid-1943 the first finished armor-plate bodies were to be delivered. The first series production vehicle was expected in December 1943.

During the Führer's conference on March 6, 1943, the decision was made to make the ball mantlet for the gun mount on the "Assault Gun on Panther," as much like that of the "Porsche Assault gun" and the "Assault Gun 15 cm" as possible. In any case, the new shield should deflect shots better than the "bullet catchers" of the "Assault Gun on Panther III Chassis." The Weapons Office's want list for the "8/8 cm *Panzerjäger* 43/3 L71 on Panther Chassis" as of May 1, 1943, required armor thicknesses of 100 mm at a 55-degree angle on the front, 60 mm at 35 degrees on the sides, and 40 mm at 35 degrees in back and on the roof, plus a 30 mm bottom of the hull. Thus, the planned vehicle had the same hull armor as the awaited Panther II tank. For short-range defense it had one MG and two MP 38 or 40, which were carried unmounted. The optical equipment should consist of one *Sfl Zielfernrohr* 5 for the cannon, one SF 14 Z shear scope, and seven other periscopes. The five-man crew was composed of the commander, gunner, driver, and two loaders. The radio equipment would be the FuG 16 and FuG 15, normally used by the artillery. The command vehicles of the battery chiefs and unit commanders also carried a FuG 8.

On May 4, 1943, the decision was made to let Panther I production continue. The Panther II was held back, and not released for series production. Several changes that were planned for Panther II for reasons of production technology were supposed to make for an improved version of Panther I, and be taken over for the "Heavy Assault Gun 8.8 cm." Since the original design drawings from Daimler-Benz were based on the Panther II hull, they now had to be transposed with all improvements onto the Panther I. These changes were carried out quickly, so that the first hulls and bodies could be delivered in September 1943. The new armor plates were 80 mm thick on the front body and 50 mm on the front hull. The side panels of the body were 50 mm, while those of the rear body, hull, and sides were 40 mm. The roof and floor were protected by 30 mm plates.

What with the shortage of space in Works 40 of the Daimler-Benz AG, plus the fact that the firm did not reach the contracted number of Panthers, the Braunschweig "Mühlenbau und Industrie AG" (MIAG) took over production of the "heavy assault gun" after a decision was made on May 24, 1943.

It was decided to decrease the armor on the roof, floor, and engine compartment cover by 16 mm, so as to bring down the total weight. After the cannon had to be moved to the right of center to make more space for the driver, the traversing field was limited from 28 to 24 degrees.

The requirements changed on June 9, 1943, and a radioman was added to the crew, making a six-man crew. The vehicle was to carry 50 8.8 cm shells, 30 explosive grenades for the "close combat weapon," 600 rounds for the MG 42, and 760 for the four MP 40. Instead of direct means of sighting for the main armament, the periscopic *Sfl.ZF* 1 with Target Setting 37 was installed. The head of the scope was outside the body roof, and turned with the main gun. The driver saw through two periscopes, plus five machine-pistol loopholes (2 right, 1 left, and 2 behind), while the commander used a *Scherefernrohr* SF 14 Z (*Sfl.*) and three periscopes, and the two loaders had two periscopes (one turning 360 degrees). The crew could enter and exit through three hatches. The commander's

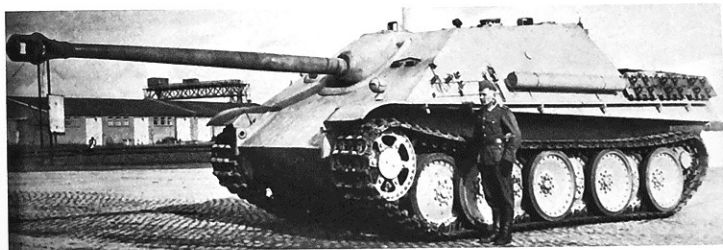
hatch was at right in the roof, another was at the left rear of the roof, directly over the loader's seat, and the third hatch was in the center of the rear body wall.

In June 1943, Daimler-Benz had finished the full-size model of the "Medium *Panzerjäger* with 8.8 cm-L71 on Panther" and turned it over to MIAG. There it helped the technicians prepare the assembly drawings and the powerplant. Adolf Hitler examined this model on October 20, 1943, as well as wooden models of the Tiger II and *Jagdtriger*. Experience with the "Ferdinand" tank destroyer in the tank battle of Kursk had shown that the crew needed

a firmly mounted MG to fight against infantry and other small targets. The planning had included a machine gun in the ball mantlet in the upper bow plate from the beginning. Before series production began other details were changed. The crew was cut from six to five men by dropping the second loader, the number of periscopes in the body roof from five to four (two rigid, two turning), and the ammunition was increased from 50 to 60 rounds. MIAG finished the first prototype in October; the High commander of the *Wehrmacht* saw the first photos during the Führer's conference on November 13, 1943. The second prototype followed in November, and was shown to Hitler on December 16, 1943.



The first *Jagdpanther* (chassis no. V 101) was accepted by the Army Ordnance Office in October 1943. The cylindrical holder for the barrel cleaning rods on the left side is still lacking. The driver had two sight openings to use. In the sidewalls of the fighting compartment were machine-pistol loopholes. The original Type Kfg 64/660/130 still had no grippers.



The Army Weapons Office's official acceptance photo shows the tank destroyer without skirting plates. A soldier was included in such pictures to give a better idea of how big the vehicle was. The container for the barrel cleaning rods is now mounted.

## Development of Designations for the *Jagdpanther*

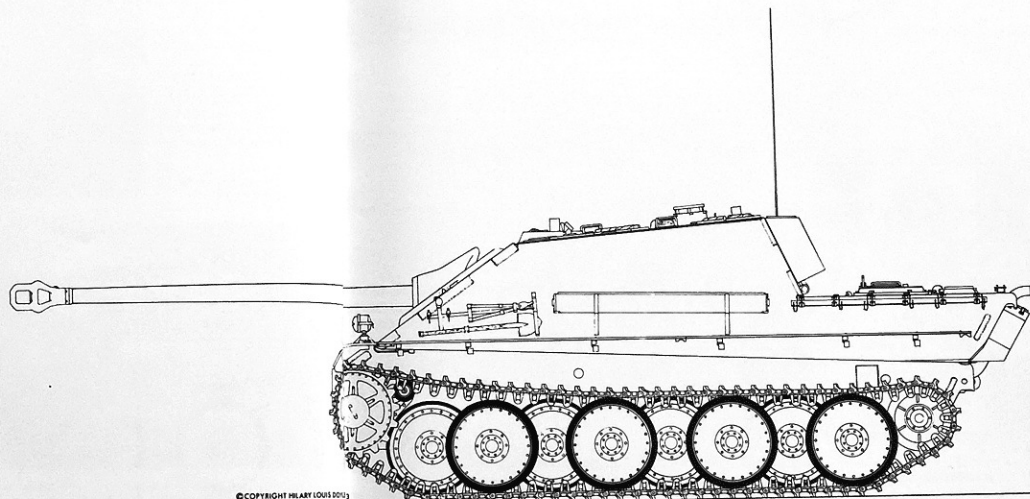
**Schweres Sturmgeschütz auf Fgst.Panther mit der 8.8cm L/71**  
 Führer's conference 10/2/1942  
**Sturmgeschütz auf Panther**  
 Führer's conference 3/6/1943  
**8.8 cm Pz.Jäg.43/3 L/71 Panther**  
 WaPrüf 5/1/1943  
**Panzerjäger auf Fgst.Panther I (mit 8.8cm Pak43/3 L/71)**  
 "Overview of the Army's Armament State," Chief H.Rüst u. BdE/  
 Stab Rüst III 7/15/1953 to 8/15/1943  
**s.Panzerjäger auf Fgst.Panther I (mit 8.8 cm Pak 43/3 L/71)**  
 "Overview" as above 9/15/1943 to 2/15/1944  
**8.8cm Pz.Jäg.43/3 (L/71) Panther**  
 State of Development, Chief H.Rüst u. BdE/Wa Prüf 9/15/1943  
**Mittlerer Panzerjäger mit 8.8cm L/71 auf Panther I**  
 Führer's conference 9/30/1943  
**Sturmgeschütz "Panther" für 8.8cm Stu.Kan.43 (Sd.Kfz. 172)**  
**Panzerjäger "Panther" für 8.8cm Pak43/3 (Sd.Kfz. 173)**

O.K.H. (Chief H.Rüst u. BdE) In 6  
**Panzerjäger auf Panther**  
 Führer's conference 11/15/1943  
 A message to the OKH on November 29, 1943, signed by Hitler,  
 finally settled the term *Jagdpanther* for the "**schweren Panzerjäger**  
**8.8cm auf Panther I**. The OKH confirmed this designation on  
 February 1, 1944.  
**s.Pz.Jg. Panther** GenStdH/Org.Abt. 12/16/1943  
**s.Panzerjäger (Fahrgestell) Panther m.8.8cm)**  
 Chjef H.Rüst u. BdE, Wa. Abn. 1/2/1944 to 9/6/1944  
 Evocative name *Jagdpanther* for **s.Pz.Jg. auf Fgst.Panther**  
 GenStdH/Org.Abt. 2/27/1944  
**Panzerjäger "Panther" für 8.8cm Pak43/3 (Sd.Kfz. 173)**  
 K.St.N.1149a and 1154a 3/1/1944  
**s.Pz.Jäger Panther** GenInsp.d.Pz.Tr.Akten 3/4/1944  
**Jagdpanther (8.8cm Pak43/3 L/71 auf Fgst.Panther I)**  
 "Overview" as above 3/15/1944 to 10/15/1944  
**Jagd-Panther 8.8cm Pak43/3 L/71 auf Fahrgst.Panther I**  
 GenStdH/General der Artillerie War Diary 4/8/1944

October 1943

**Jagdpanther** Gen.Insp.d.Pz.Tr.Akten 4/24/1944 to 4/6/1945  
**s.Pz.Jäger V 8.8cm Pak43/3 L/71 "Jagdpanther"** 5/1/1944  
 WaPrüf 6  
**s.Panzerjäger mit 8.8cm PakL/71 auf Fgst.Panther** as  
**"Jagdpanther"**  
 Chief GenStdH/Org.Abt./Gen.Insp.d.Pz.Tr. 9/8/1944  
 Called by the troops: *Jagdpanther*

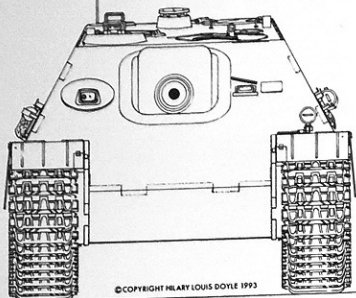
Called officially: *Jagdpanther Ausf.*  
 Chief GenStdH/Org.Abt./Gen.Insp.d.Pz.Tr. 9/11/1944  
**Jagdpanther, Panzerjäger Panther (m.8.8cm Pak43/3 L/71)**  
 (Sd.Kfz. 173)  
 "Overview" as above 11/15/1944 to 3/15/1945  
**Jagdpanther G1 MNH** 2/27/1945



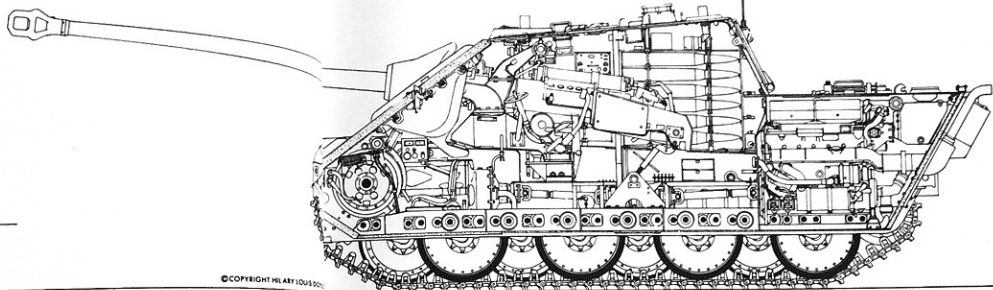
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*Jagdpanther* (early version)  
 April 1944—Chassis no. 300026—MIAG made (one-piece cannon—stor-  
 age-space rack at back of fighting compartment—installed on left side, in-  
 cluding 50 mm diameter towrope, "C" towing hook, and spare track links.

Front view:  
(Original cast collar—15 mm plate over opening for  
second driver's periscope)



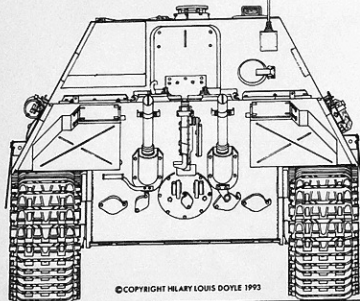
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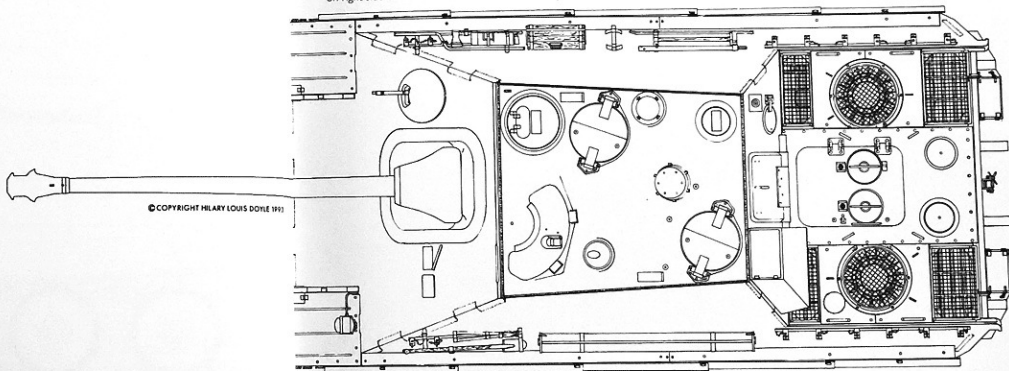
Side view (ready to march; scopes stowed—cannon support in  
place (barrel at 7 degrees)—hook security on recoil deflector—  
transverse double torsion-bar suspension—swing arms pull to  
right, push to left.

Rear view:  
Towing hook by inspection opening in center of rear  
plate.



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Top view (engine room cover as in Panther tank, Type G, but front intake gratings reduced 1/3 in size—antenna position for panther covered—storage space  
on right side of vehicle; 50-mm towline; "C" towing hook, and 15 mm rope for track pulling)



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## Shape Change During Production

During production of the *Jagdpanther* changes flowed in steadily, simplifying the production and making the vehicle more suited to combat.

January 1944

The five "pistol ports" in the side and rear walls were present only in the two prototypes (chassis no. V 101 and V 102). They were dropped when series production began (from no. 300001 on). These



The second prototype (chassis no. V 102) was accepted by the Army Weapons Office in November 1943 and tested thoroughly by Verskraft, in Kummersdorf.



The second prototype was shown to Hitler on December 16, 1943. The two machine-pistol ports can be seen on the right wall of the fighting compartment. They allowed use of MP for close range defense, and for observation. In the background is a Tiger H 2 tank.

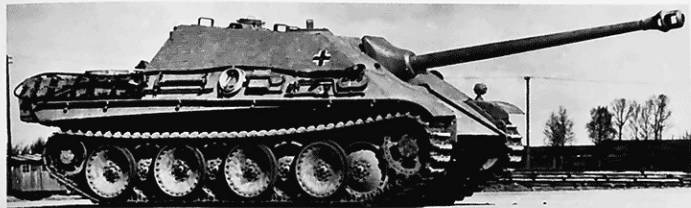
openings weakened the side armor plate, and were also made unnecessary by the installation of the "close combat weapon." Because of delivery difficulties, this weapon could not be built into most of the *Jagdpanthers* that were finished before June 1944.

The opening in the roof was temporarily closed by a circular plate held by four screws.

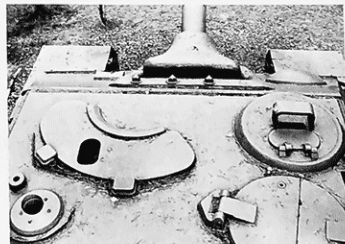
Six raised transverse bars on the cast track links improved roadholding on ice and hard-packed snow.



One of the first series-produced *Jagdpanthers*, of which MIAG produced five in January 1944. The driver's view was assured by two periscopes. The MP ports on the sidewalls were eliminated. This vehicle was sent to a Fueroerjäger replacement unit for training. Series production began with chassis no. 300001.



The MG ports could be eliminated because a close-combat weapon mount was provided in the roof, but the gun was not ready for the first series vehicles. The opening in the roof was temporarily closed by a circular plate.



The close-combat weapon can be seen at the lower left. Just above it is a welded on mount for the makeshift 2-ton crane.



In February 1944 production the left periscope for the driver was eliminated. The opening was covered by a welded on rectangular plate.

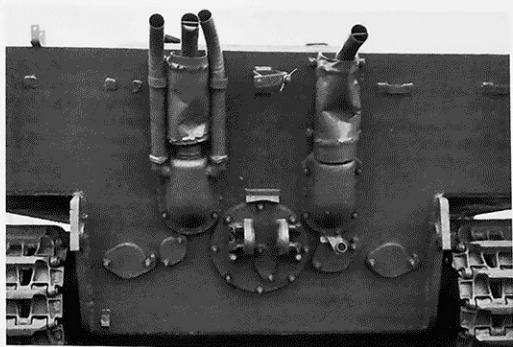


The towing shackle attached to the center of the rear plate was formerly welded to the round servicing hatch. In recovery, towing rods could now be used. To make place for the new towing coupling the winch, formerly mounted horizontally, had to be placed vertically between the exhaust mufflers. The vehicle shown is a command tank, with a mount for a star antenna on the upper right part of the rear wall.

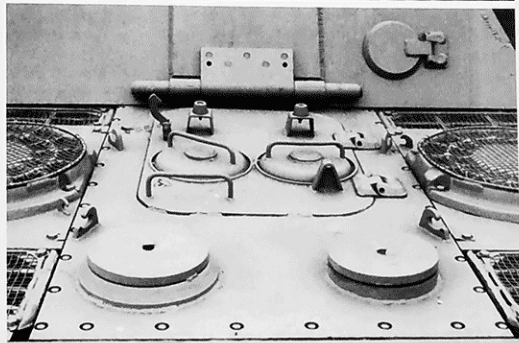
## February 1944

The left periscope for the driver was eliminated. The opening was welded shut with a rectangular piece of steel plate. The towing coupling attached to the middle of the rear plate was welded to the round servicing hatch. For recovery, towing rods could now be used, much improving control over the defective vehicle. With the towing cables used before, the towing of the *Jagdpanzer* was hard to control and brake. To make room for the new towing coupling, the winch—which had been mounted horizontally over the servicing hatch until then—was located vertically between the exhaust pipes.

The first *Jagdpanthers* still used the engine cover of the Type A Panther tank. Only the air intake grating right behind the back wall was narrower. Since the antenna was mounted at the right rear of the roof—unlike the tank, which had the antenna attached to the engine cover—a circular plate now closed this opening. The opening on the engine cover between the filler caps for coolant and fuel was also covered by a circular plate. It was originally intended for a telescopic pipe, which supplied the carburetor with air during deep wading. This requirement was withdrawn before series production of the *Jagdpanther* began. The two openings were no longer planned for the *Jagdpanthers* built after April 1944.



Attachments for the vertically placed winch.



The first *Jagdpanthers* had the engine cover of the Panther tank, Type A, but without the opening for the telescopic air intake pipe that provided air during deep fording.

May 1944

Two pipes left and right of the left exhaust pipe cooled the exhaust, and simultaneously drew the dust and smoke of the steering and wheel brakes through engine cooling ventilators through a sheet metal shaft. Sometimes this apparatus was also attached to the right exhaust pipe.

In the armament, a two-piece barrel replaced the one-piece barrel of the 8.8 cm Antitank Cannon 43/3. Both weapons had the same designation. This considerably simplified construction, since the shorter pieces of the separated version were easier to produce.

The one-piece barrel had to be made of a single piece of steel more than six meters long.

The other differences between the two cannons are listed here:

One-piece barrel	Two-piece barrel
Cannon balanced by a lead counterweight.	Cannon balanced by a strong spring.
Breech spring was serviced on right side.	Breech
Muzzle brake 60 kg, recoil brake 1.1 liter.	Spring serviced on left side.
	Muzzle brake
	35 kg,* recoil brake 6 liters.

\* Fitted muzzle brake of the 7.5 cm Pak L/70.



As of May 1944 two pipes were attached, one on each side of the exhaust pipe. They served to cool the exhaust temperature, and were also used to remove dust and smoke from the steering and wheel brakes.



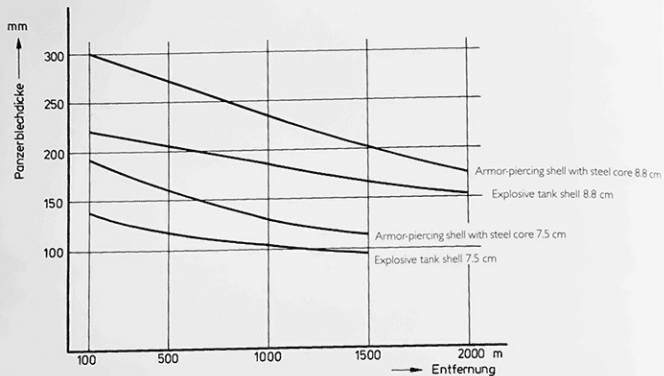
After the early Jagdpanthers had been equipped with a single-piece barrel for the 8.8 cm Pak 43/3, a version of this weapon with a two-piece barrel was used as of May 1944. All the supplies were used up, so that by the end of October 1944, Jagdpanthers with the one-piece barrel were still delivered. The one-piece barrel is shown above, the two-piece type below. (BA, BA)



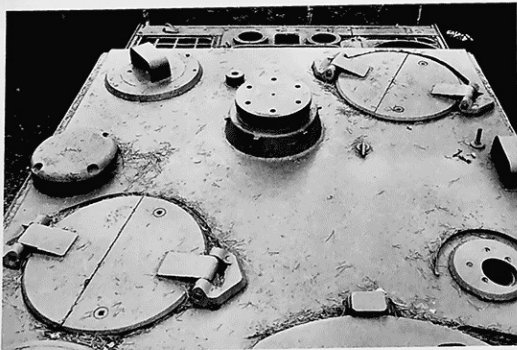
It was shown that changes were made in production only when all existing parts were used up—as long as the weapons had first been delivered to the Army Weapons Office for shooting in. Thus, it happened that some *Jagdpanthers* still received the one-piece cannon at the end of October 1944.

#### June 1944

The screw attachments for the two-ton makeshift crane, known as "mushrooms," were also planned for the roof of the body (3 pieces). The outer weapon shield was thus changed so that a screw was put into the top of the cast piece, so the shield could be lifted by an eye.



Penetrating power of the 7.5 cm KwK 42, or 8.8 cm Pak 43/2 hitting at a 90-degree angle. (plate firmness 45-105 kg/mm<sup>2</sup> => 450-1050 N/mm<sup>2</sup>)



As of June 1944, the screw connections known as mushrooms were supplied (3 pieces) for the two-ton crane, here on the rear end of the roof, just behind the ventilator.

#### September 1944

On September 9, 1944, the OKH advised the manufacturers to stop using "Zimmerit" protective coatings against hollow charges,

effective immediately. The inner weapon shield, which was attached to the upper bow plate inside, was covered by a cast collar, held above and below by four bolts. Some *Jagdpanthers* still went to the front with the old covering in November 1944.

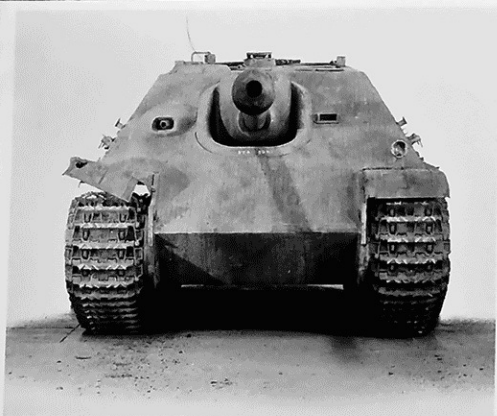


In September 1944 the manufacturers were instructed not to use Zimmerit protective coatings any more.

## October 1944

A thickened inner weapon mount increased protection. The stronger cast piece was likewise held on by four screws above and below.

Sheet metal covers concealed the exhaust pipes, which glowed betrayingly at night. In mid-October, MIAG was already installing small cooling pipes next to the exhaust pipes, even before attaching the sheet metal covers. In practice, the various manufacturers introduced changes only when they had used up their supplies of old parts.



The collar of cast steel that covered the weapon opening was originally welded. As of October 1944 it was held by four screws, above and below. Some Jagdpanthers with the welded collar were still delivered until November. The Jagdpanther delivered by the MNH firm in December 1944 (chassis no. 303018) was captured by the Americans in the 1944 Ardennes offensive, and sent to the USA (Aberdeen Proving Grounds). The vehicle still had the old leading wheels.

The leading wheels did not clean themselves of snow and ice well, and tracks were thrown. New leading wheels with a bigger diameter were developed; they are easy to recognize by their doubly ribbed spokes. With a shortage of parts and available spare parts to be used up, the manufacturers were still installing original leading wheels in new Jagdpanthers in February 1945.

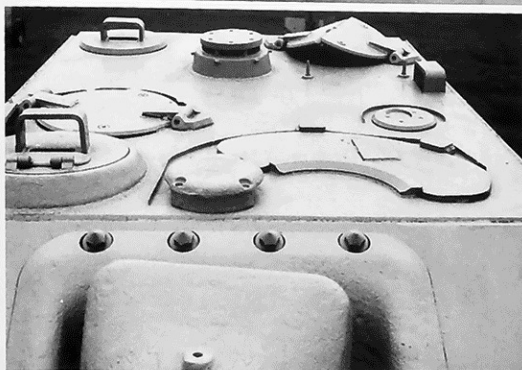
Driving tests had shown that the rear shock absorbers mounted inside the hull had no influence on the handling of the vehicles. They were dropped to shorten production time and avoid superfluous parts.

Sheet metal coverings around the exhaust pipes, which were introduced in October 1944, were replaced in December 1944 by flame destroyers, to conceal glowing exhaust lines and avoid inflaming mixtures of fuel and air in the exhaust.

## November 1944

On a limited number of Jagdpanthers (ten confirmed) made in November and December 1944, the smoke escape ventilator was moved forward on the roof, directly over the weapon mount. In all other Jagdpanthers built before and afterward, this ventilator was on the right side of the roof directly behind the commander's hatch.

As of November, the Jagdpanther was given one more driver's periscope. As of December 1944, the bodies that the builders still supplied with two openings had a shaft with a port welded on. Before this time the second opening had been covered with a 15 mm thick piece of armor plate.

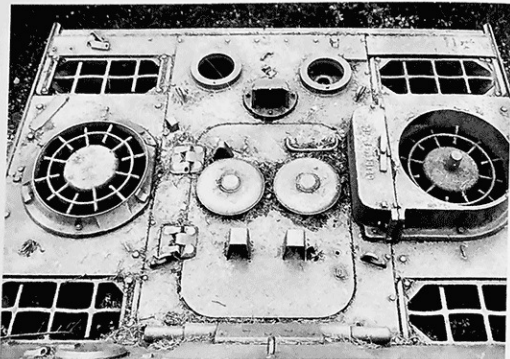


This vehicle (chassis no. 303018) built by MNH was one of about ten pieces that had an additional smoke escape right over the breech of the gun.

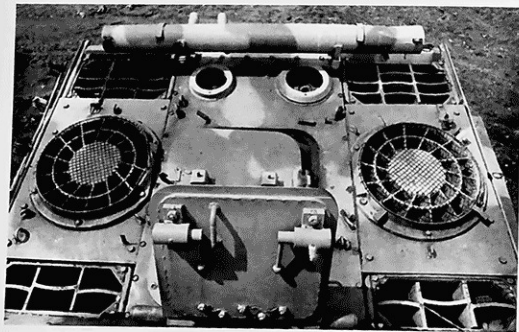
December 1944

The *Jagdpanther* adopted the type of engine cover that had been introduced on the Panther tank. This caused inner changes in the

engine cooling system. The cooling and smoke escape ducts near the exhaust lines were dropped, along with the air exit ducts inside the vehicle. In the middle of the engine compartment cover another ventilator, with a cover, was installed. The rear air intake gratings became narrower.



In December 1944 new fighting compartment heating was introduced. In the process, a raised ventilator cover was placed over the left engine cooling duct, which brought warmed air that had blown over the motor through a shaft into the fighting compartment and to the driver.



Although all *Jagdpanthers* left the assembly halls with cylindrical containers for the barrel-cleaning rods on the left side of the vehicle, a few units moved this equipment to a transverse position behind the engine compartment cover. Thus, they avoided damaging these objects in narrow passages.

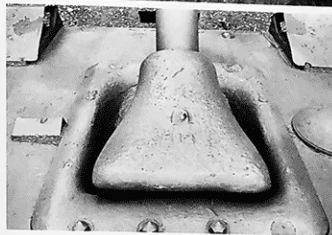
"Flame-destroyer" exhaust mufflers were supposed to conceal glowing exhaust pipes, and prevent mixtures of fuel and air in the exhaust from igniting. Probably, though, the MNH firm still delivered *Jagdpanthers* with the old ventilation ducts next to the exhaust pipes.

A newly developed ventilator cover was located by the left engine cooling air escape, to bring warm air through a shaft into the fighting compartment and to the driver.

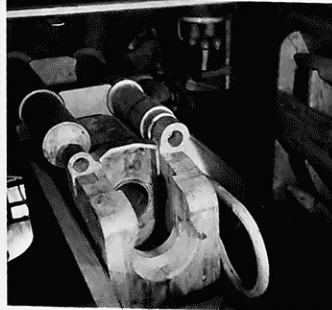
The ammunition storage at the right front was changed to create better places for the radios. Now the vehicle could carry only 58, instead of 60 shells, for the 8.8 cm *Panzerjägerkanone* 43/3.



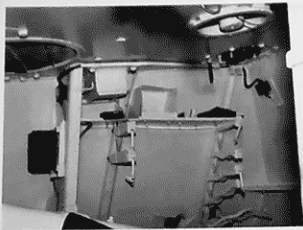
This *Jagdpanther* was captured by the Americans and sent to the USA. The second driver's vision opening is closed, and the vehicle had the two-part barrel and screwed-on gun-mount collar, but no Zimmerit coating. Note the handholds welded onto the driver's side, making getting in and out easier for the crew.



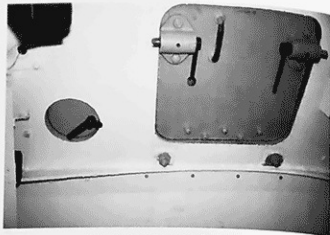
The screwed-on cast steel collar allowed an enlargement of the opening in the upper bow plate. Changing the wheel and steering gears was thus made much easier.



This full size wooden model shows the breech of the 8.8 cm cannon and part of the ammunition storage.



The smoke outlet system in the roof.

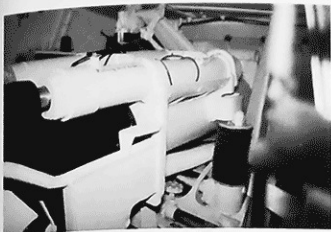


Ammunition storage at the right rear.

Interior photos of the Jagdpanzer's fighting compartment, chassis no. 303094, made by MNH in February-March 1945. The vehicle was restored and is at Munster today



The rear body wall with the square entrance-exit hatch. To the left is a round port for throwing out used cartridges.



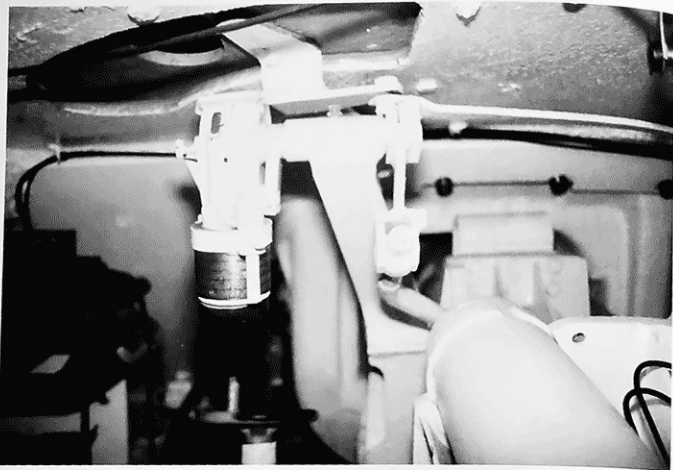
The breech of the 8.8 cm gun, as seen by the loading gunner.



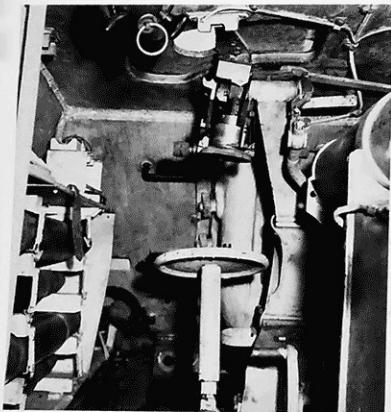
A look at the radioman's seat. The front shock absorber is located on the right sidewall.



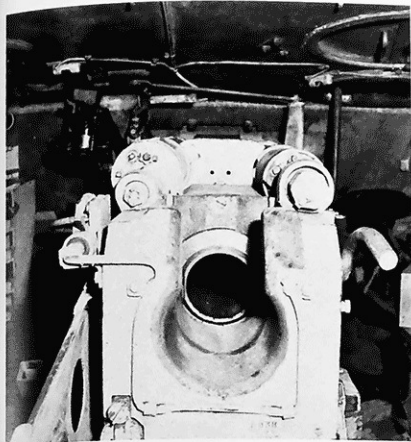
Ammunition storage at the left rear.



Means of vision, as seen by the aiming gunner's position.



A look at the aiming gunner's position, with ammunition stowed on the left.



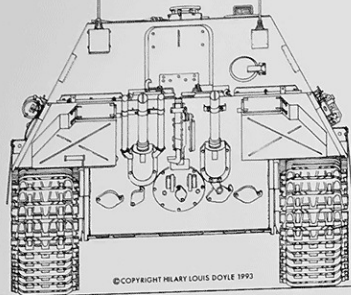
The breech of the 8.8 cm cannon.



Stowed ammunition, at left in front of the commander.

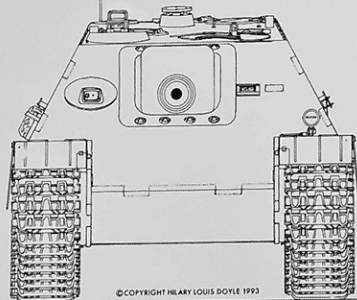


Rear view (two added pipes by the left exhaust—warm air directed to the gearbox and steering brakes)



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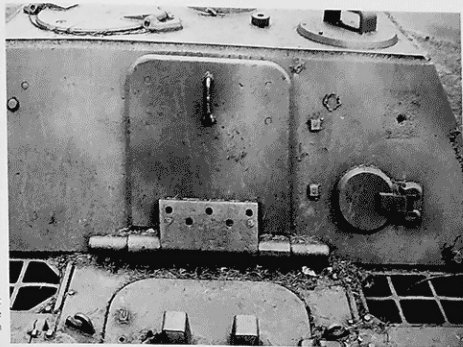
Front view (New rectangular opening in the front plate, covered by a new cast collar, which is screwed on—welded-on port in the second driver's sight opening)



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## February 1945

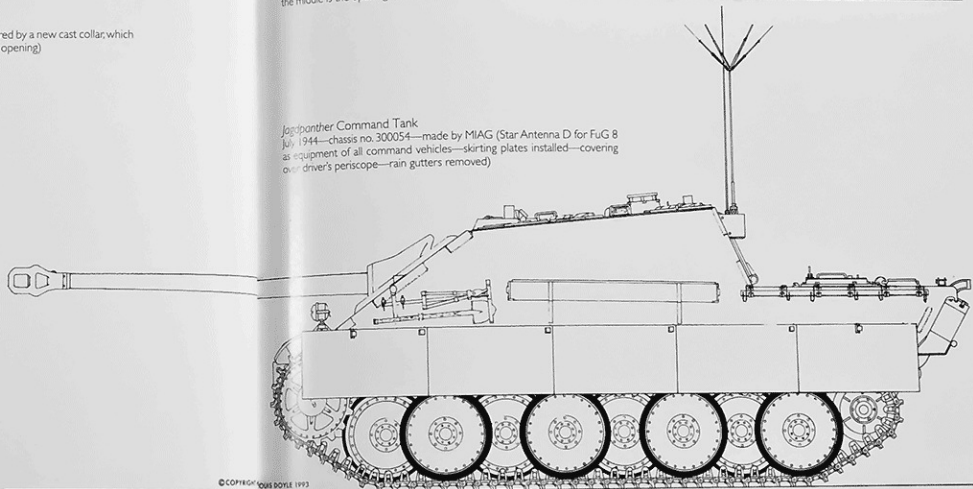
On February 27, 1945, the manufacturers were instructed to leave off the baggage box for the crew at the left rear.



A command-tank version of the Jagdpanther. At upper right over the round ammunition flap, the mounts of the umbrella antenna can be seen. In the middle is the opening for the electric cable.

## Jagdpanther Command Tank

July 1944—chassis no. 300054—made by MIAG (Star Antenna D for FuG 8 as equipment of all command vehicles—skirting plates installed—covering over driver's periscope—rain gutters removed)



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## Production

Only a month after the official production planning, MIAG finished the first five series *Jagdpanthers*; the Weapons Office accepted them in January 1944. Production went on with small numbers finished: seven in February, eight in March, ten in April, and ten in May, until production dropped back to six *Jagdpanthers* in June on account of bombing raids. The delays in production were due mainly to improvements: strengthened gearbox parts in the steering and intermediate gears were the major changes. By the end of June 1944, 46 series *Jagdpanthers* in all had left the assembly halls. They were enough to equip only one heavy army *Panzerjäger* unit. The production plants had foreseen 160 of these vehicles—enough to equip three units, and have *Jagdpanthers* left over for further testing and training. Production rose to 15 units in July, but dropped back to 14 in August because of another bombing raid.

The MIAG firm complained repeatedly about the lack of workers. So as not to delay the production longer, they were promised another 300 workmen. At first the Army Ordnance Office sent 160 soldiers, who began their work on August 4, 1944. Another group of 160 soldiers followed. The men came from the sixteen *Panzerjäger* replacement units, each of which sent ten men. With these workers, MIAG was able to finish 21 *Jagdpanthers* in September. A bomb attack in October sent the number down to eight.

Neither the Army High Command nor the Weapons Office could be happy with these figures. They contracted with two other firms for *Jagdpanther* production.

MIAG delivered eighty tank bodies to the Maschinenfabrik Niedersachsen Hannover (MNH), which had been building Panther tanks since 1943. MNH was supposed to build 20 *Jagdpanthers* in November 1944, 30 in December, and 30 more in January 1945,

and could then devote itself to other projects. MNH was only supposed to fill the holes until a third, new firm had overcome its starting phase, and was able to handle high production rates. The "new" firm was M.B.A. (Maschinenbau und Bahnbedarf), in Potsdam-Drewitz, which had not produced a single armored vehicle

up to this point. But this company had enough space for tank production. The production planning of MBA considered the learning process, and asked to do only five *Jagdpanther* in November and ten in December 1944. The following totals were planned for 1945: 20 in January, 30 in February, 45 in March, 60 in April, 80 in May, 90 in June, and 100 a month from July on.



Above: The Maschinenfabrik Niedersachsen-Hanover was the only assembly firm that built Panthers and Jagdpanthers in series at the same time. The picture shows the chassis of a Type G Panther at the lower right; all those in back are Jagdpanthers. Between the two lines are engines ready for installation. Below: Two Jagdpanther bodies in the midst of Panther tank bodies, in production at MNH in April 1945.



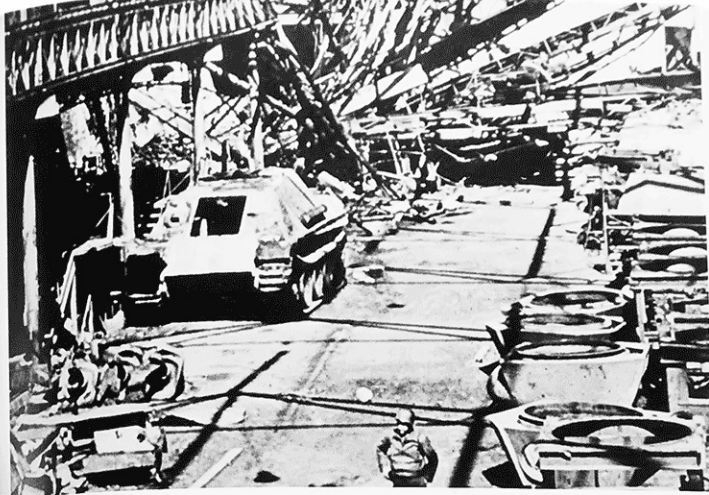
This picture shows the MIAG works right after the war ended. Along with several Assault Gun III hulls and bodies, the number of already prepared Jagdpanther bodies speaks of the capability of German industry.

With the support of MNH and MBA, the production figures climbed to 55 *Jagdpanthers* in November and 67 in December 1944. The highest total was reached in January 1945, with 72 vehicles finished. Since MIAG and MBA had not reached the predeclared production figures, MNH was requested to go on producing *Jagdpanthers* until June 1945. As a result of the situation, Guderian had to set up a "need program" for tank production at the beginning of February 1945. By it, the few available means were to be used for high-value combat vehicles. The planned production of *Jagdpanthers* was set as follows:

Firm	February	March	April	May	June
MIAG	40	45	60	60	60
MNH	20	20	20	20	20
MBA	10	20	20	20	20

From June 1945 on, 100 units were to be produced monthly. What with bombing attacks, power failures, and transport difficulties, the firms were able to produce only 42 in February, 52 in March, and about 34 in April before the Allies occupied the works.

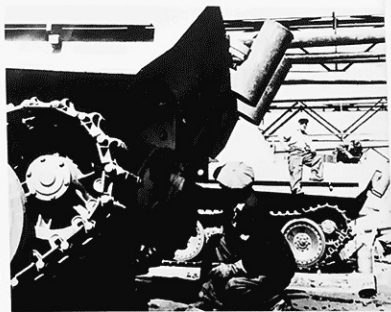
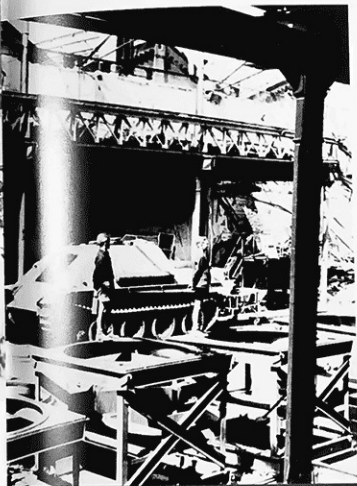
The monthly *Jagdpanther* production can be seen in the following overview. The monthly production records of MIAG, MNH, and the Army Weapons Office were saved. Only the MBA records were lost. To calculate the MBA *Jagdpanther* production from October 1944 to the war's end, it is only necessary to subtract the monthly production of MIAG and MNH from the numbers turned over to the Weapons Office.



Destroyed MNH facilities seen after being occupied by the U.S. Army. At left is a *Jagdpanther*, at right turrets for Panther tanks.



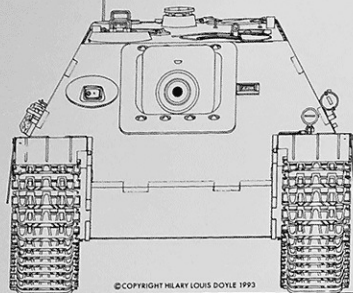
*Jagdpanther* bodies ready for mounting, seen at MNH at the end of the war.



Two *Jagdpanthers* (chassis no. 303110 and 303112) on the MNH assembly line right after the occupation of Hannover on April 10, 1945. The vehicles show the last changes, such as new leading wheels and flame extinguishers.

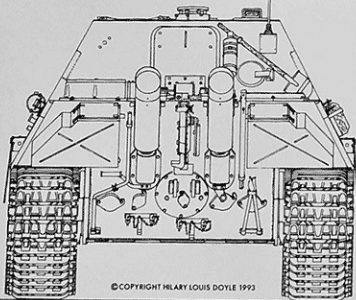
These frames for Panther turrets stand empty at MNH. A half finished *Jagdpanther* can be seen in the background.

Front view: (Heavy outer cast collar as of November 1944—just one periscope opening for the driver as of December 1944)



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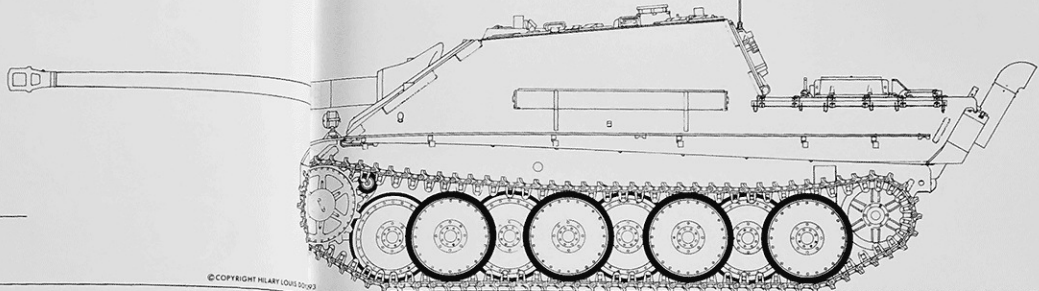
Rear view: (Changed tool and equipment brackets on the rear plate—brackets for two "C" towing hooks)



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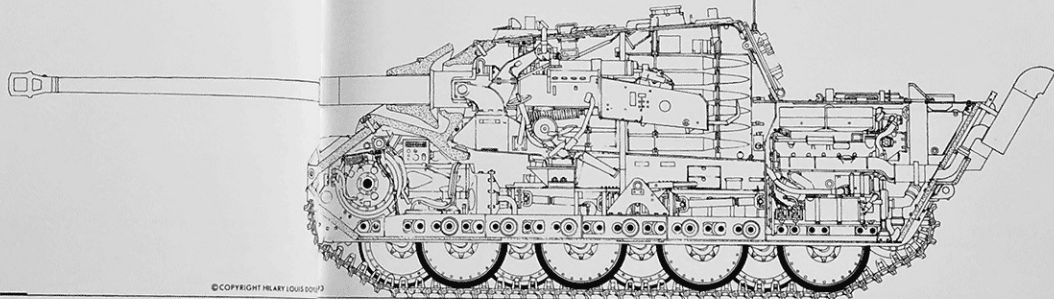
*Panther* (late version)

May 1945—Chassis no. 393101—MNH production (two-piece barrel of the 8.8 cm Stuk 43/3, introduced on a few vehicles as of May 1944, on all as of November 1944—lightweight muzzle brake—new leading wheels (660 mm diameter)—87 links per track on some vehicles as of October 1944—rear shock absorbers dropped as of October 1944—fighting compartment heating duct from the left hot air escape—Flame-extinguisher exhaust as of December 1944—the last vehicles produced had tools and equipment that were formerly attached to the side of the vehicle moved back to behind the engine compartment (including 50 mm diameter towrope). These changes were also made to older vehicles by their crews.

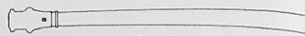


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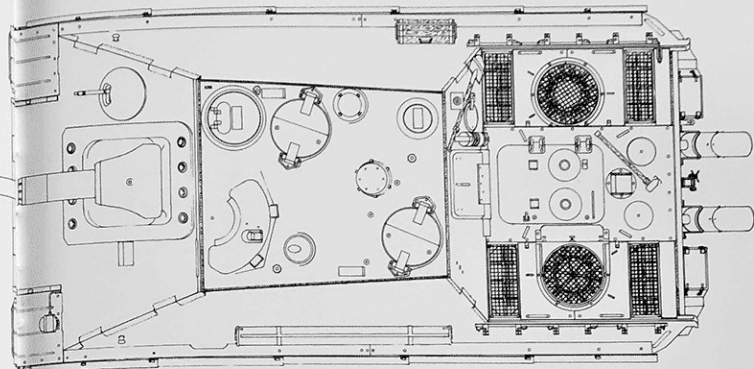
Side view: (Ready for action: Two-part gun barrel—counterweight on the recoil brake replaced by equalizing spring under the cannon—lengthened recoil protection—Z-14 targeting device installed—improved fresh air ducting through ventilator and forward on the right side of the vehicle—changed location of radio sets—Air escape for the HL 230 P 30 motor in the middle of the engine cover.)



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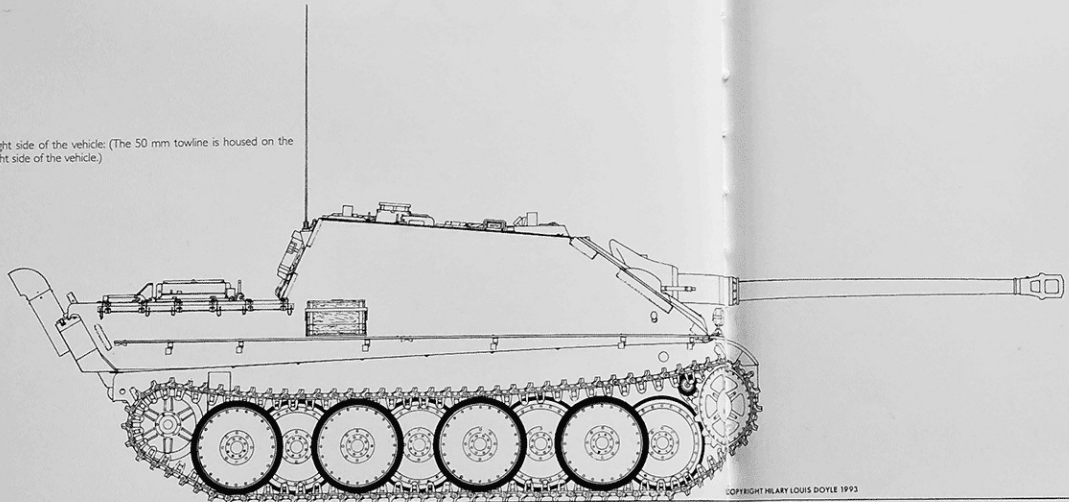


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Top view; ("mushroom" mounts, introduced in June 1944, but position changed—engine room cover changed, equally big air intake gratings—air escape in the middle in back—air intake for carburetor set in an open position—metal attachments for rear hatch.)

Right side of the vehicle: (The 50 mm towline is housed on the right side of the vehicle.)



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### Jagdpanther Production

(8.8 cm-Pak 43/3 on Panther I chassis)

Month & year	Planned	Accepted by HWA	Finished by MIAG	Finished by MNH	Finished by MBA
1943					
October	1	1	1*		
November	5	1	1*		
December	5	0	0		
1944					
January	15	5	5		
February	15	7	7		
March	15	8	8		
April	30	10	10		
May	35	10	10		
June	40	6	6		
July	55	15	15		
August	45	14	14		
September	40	21	21		
October	50	8	8		
November	45	55	35	20	0
December	80	67	37	14	16
1945					
January	90	72	35	35	2
February	50	42	2	20	0
March	60	52	32	13	7
April	60	21+	3	10	12
Total	415+	270	112	37	

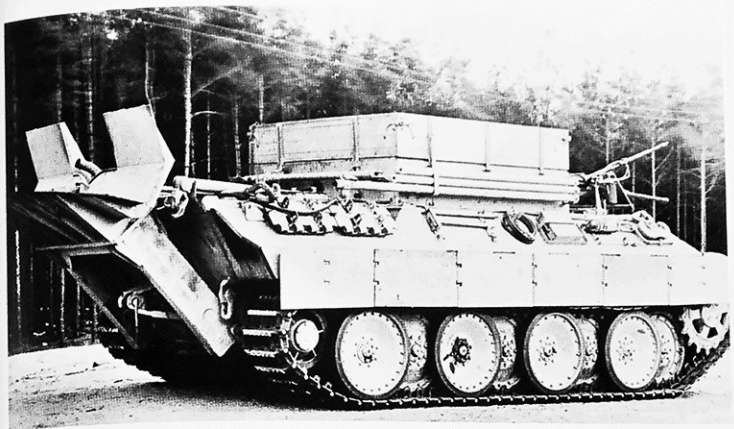
\* Test models # V 101 & V 102

### Action

The first unit that was supplied with *Jagdpanthers* was the Heavy Army *Panzerjäger Abteilung 654*. In August 1943, this unit had already been chosen when they turned over their remaining Ferdinand tank destroyers to their sister *Abteilung 653*. The first five series *Jagdpanzers* were not available before January 1944. On February 21, 1944, at the earliest, *Abteilung 654* was ordered to train crews for the *Jagdpanther*.

Because of delays in *Jagdpanther* production, the Heavy *Panzerjäger Abteilung 654* received eight recovery Panthers as training vehicles in February 1944. Finally, the Army Equipment Office released two *Jagdpanthers* on March 23, 1944, and sent them to the *Panzerjäger School* at Mielau. On April 28, 1944, the Army Equipment Office transferred the first eight *Jagdpanthers* by rail direct to Army *Panzerjäger Unit 654*. Thus, they were being supplied as the Allies were landing in Normandy on June 6, 1944.

In agreement with the K.St.N. 1149c of March 1, 1944, every heavy *Panzerjäger* company was to receive 14 *Jagdpanthers*. The company troop got two, and the three platoons got four each. According to K.St.N. 1154a of March 1, 1944, the staff companies of the heavy *Panzerjäger Abteilungen* were each to get three of the command *Jagdpanther*.



Because of production delays with the *Jagdpanther*, the Heavy *Panzerjäger Abteilung 654* received eight *Bergepanther* for driver training.



The first unit to receive *Jagdpanthers* was Heavy Army *Panzerjäger Unit 654*. This picture shows a *Jagdpanther* of the 2/5PzJgAbt. 654 at Mally le Camp, France, in May 1944.



The *Jagdpanther* in action in France, 1944. The small ball mantlet and the left opening for the driver's periscope, now welded shut, can be seen clearly. (BA)



The Command Jagdpanzer, chassis no. 300054, was finished by MIAG in July 1944 and assigned to the staff of Heavy Panzerjäger Abteilung 559. Four 75 or 76 mm KE shells penetrated the rearward right side and caused a small fire in the engine compartment. The vehicle was recovered and shipped to England, where it is still on display at the Imperial War Museum.



The Heavy Panzerjäger Abteilung 559 had little luck with its Command Jagdpanzers. The second one was lost on September 13, 1944, in the vicinity of the Albert Canal. Fire from an M4 Sherman tank broke through its right side at the level of the engine compartment, and the vehicle burned out.



For production reasons, though, it was not possible to bring the 654<sup>th</sup> Abteilung to full war strength before it was transferred to the western front. On June 11, 1944, it was reported to Hitler that the Staff of the 654<sup>th</sup> Abteilung, with the First and Second Companies, was ready for service near Rethel. The Staff was to have three Command Jagdpanthers, the First Company twelve, and the Second Company thirteen. Up to that point, though, Abteilung 654 had received only eight Jagd- or Bergepanther. Seventeen more Jagdpanthers did not leave the Army Equipment Office by rail until June 14, 1944. Until then, the Staff had not received any Befehls-Jagdpanzer.

With complete disregard for the previous standards for mass action with new weapons systems, the not yet complete 2<sup>nd</sup> Company was sent to the front. On June 15, 1944, at exactly 12:10 AM, the 2<sup>nd</sup> Company of Abteilung 654 loaded their eight usable Jagdpanthers on railroad cars and moved to the western front. Finally, chiefly by night marches, the unit reached their destination. From 27 to 29 June they were subordinated to the Panzer Instructional Division. Until July the company remained under the command of the XLVII Panzer Corps, fighting generally with British armored units.

On July 1, 1944, the 654<sup>th</sup> Unit reported that 25 Jagdpanthers were ready for action. The rest of the 2<sup>nd</sup> Company and the 3<sup>rd</sup> Company used the 17 Jagdpanthers that had arrived by then for training purposes. The 1<sup>st</sup> Company moved to the Mailly le Camp training camp without Jagdpanthers; four weeks later they were still there—without Jagdpanthers.

One more Jagdpanther and three Command Panthers—instead of three Command Jagdpanthers—were sent to Abteilung 654 by the Army Equipment Office on July 6, 1944.

On July 17, 1944, the Staff, the rest of the 2<sup>nd</sup> Company, and the 3<sup>rd</sup> company arrived at the front. They were subordinated to the XLVII Panzer Corps. On July 28, 1944, the XLVII Panzer Corps reported the strength of Abteilung 654 as having 21 Jagdpanthers ready for action, while four were still being repaired.

A report on July 30, 1944—meantime Abteilung 654 was under the LXXIV Panzer Corps—stated that the Abteilung was credited with ten of 25 shot-down enemy tanks. On this day, three Jagdpanthers had taken on a squadron of Churchill tanks of the British 6<sup>th</sup> Guards Tank Brigade in a two-minute action. Two more Churchill squadrons hurried up to provide reinforcement, and forced the Jagdpanthers to withdraw behind a hill after they had been hit. The 6<sup>th</sup> Guards Tank Brigade reported the loss of eleven Churchill tanks and the capture of two Jagdpanthers, which they had found abandoned with track damage.



In major action, engineers of the British Army recovered this Jagdpanzer, chassis no. 300027, in mid-August 1944. The vehicle, built by MIAG, was assigned to the 3<sup>rd</sup> Company of Heavy Panzerjäger Abteilung 654 in April 1944. The vehicle was thoroughly examined in Britain.

On August 1, 1944, *Abteilung* 654 reported eight *Jagdpanthers* ready for action and two Command *Jagdpanthers*. Sixteen more *Jagdpanthers* were being repaired. The total losses in July were two *Jagdpanthers* and one Command *Jagdpanther*.

To bring Heavy *Panzerjäger* *Abteilung* 654 back to full strength, it was assigned 16 "fresh" *Jagdpanthers*. On July 31, 1944, eight *Jagdpanthers* left the Army Equipment Office by rail. The last eight followed on August 14, 1944. The 1<sup>st</sup> Company of the 654<sup>th</sup> *Abteilung* was declared ready for action on 10 August, although at that point (and only very briefly) it had only eight *Jagdpanzer* available. One *Jagdpanzer* (tactical no. 314) of the 3<sup>rd</sup> Company was captured by the British in mid August 1944. One battalion of the 43<sup>rd</sup> British Division recovered this vehicle. A six-pound antitank shell had hit the intermediate gears. A PIAT hollow charge shell had penetrated the right side of the body but did no

fatal damage. The roof had also been penetrated, probably by an explosive artillery shell. To take the vehicle to Britain for examination it had to be recovered first. The attempt to load the *Jagdpanther* onto a Diamond T low loader with a winch line failed. The *Jagdpanzer* hit a ditch with its nose, flung the low loader trailer high into the air, and destroyed the winch of a Scammell towing vehicle which tried to hold the whole aggregation together. The Royal Engineers of the 43<sup>rd</sup> Division made 1000-Franc bets that the *Jagdpanther* weighed more than the official 46 tons. In the delaying combat on the invasion front, in breaking out of the pocket at Falaise and southwest of the Seine, the *Abteilung* lost 17 *Jagdpanthers* in August. With their remaining 23 *Jagdpanthers*, they finally withdrew behind the Seine. Most of their vehicles urgently needed repairs. The order to return to Germany came on September 9, 1944. *Abteilung* 654 moved to the Bavarian troop training camp at Grafenwöhr for refreshment.



*Jagdpanthers* of the 2<sup>nd</sup> company, Heavy *Panzerjäger* *Abteilung* 654, joined the rest of the *Abteilung* near Gummersbach in September 1944, after action in Normandy.

To repair the *Jagdpanthers*, *Abteilung* 654 requested seven Maybach HL-230 motors, five AK 7-200 gearboxes, 23 complete sets of tracks, and 23 drive wheels. A report stated that the normal Panther final drive, as well as the newer, reinforced version, failed quickly—especially because of the additional weight and the nose-heaviness of the *Jagdpanther*. The normal Panther final drives lasted an average of 35 kilometers before the driveshafts gave up. On

October 28, 1944, the problem with the final drives seemed to be solved. The 654<sup>th</sup> reported that *Jagdpanthers* with reinforced final drives had already covered 400 to 500 km without damage. To be sure, the drive wheels had been stressed more than normally.

Urgently needed for defense in the west, Heavy *Panzerjäger* *Abteilung* 654 was preferentially supplied with replacement vehicles. To reach their official war strength of 45 *Jagdpanthers*, they received seven on October 14 and six more on November 15,



The orders to return to Germany came on September 9, 1944. *Abteilung* 654 transferred to the Grafenwöhr troop training camp for refreshment. This picture was taken in October 1944.



*Jagdpanther* 234 of Heavy *Panzerjäger* *Abteilung* 654, commanded by Sergeant Carl Barth, is seen at Grafenwöhr in October 1944.



1944. In addition, the *Abteilung* received four 2 cm Flak Quad 38 on Panzer IV and four 3.7 cm Flak guns on Panzer IV—the equipment of an armored anti-aircraft unit for “mobile anti-aircraft defense.”

The repair squad also received four Recovery Panthers for towing and repairing broken down vehicles. The 654<sup>th</sup> *Abteilung* was loaded onto the railroad at Grafenw’hr on November 18, 1944, and set out for the western front. As a result of a hot axle on a SSyms low-loader car of the German *Reichsbahn*, two

*Jagdpanthers* did not reach the unit until December. They were subordinated to the LXIII Army Corps in AOK 19 of Army Group G, and fought almost nonstop from November 20 to 30, 1944. During this time the *Abteilung* reported 52 shot-down enemy tanks, ten destroyed Pak guns, and nine damaged enemy tanks. The unit itself lost 18 *Jagdpanthers* and three 2 cm Flak Quads on Panzer IV. On December 1, 1944, the 1<sup>st</sup> company had ten, the 2<sup>nd</sup> company seven, and the 3<sup>rd</sup> company eight *Jagdpanthers* ready for action. Because of numerous manufacturing delays, the 654<sup>th</sup> *Abteilung*

remained the only unit in the *Wehrmacht* with three fully equipped *Jagdpanther* companies. To make up for production failures, Hitler ordered on September 11, 1944, the experimental establishment of a unit whose equipment consisted of *Jagdpanther* and *Jagdpanzer* IV, or assault guns. Every unit should have one company with IV, or assault guns, and two companies with *Jagdpanzer* IV or *Jagdpanthers*, and two companies with *Jagdpanzer* IV or *Sturmgeschütz*, III. Hitler wanted no more units that consisted entirely of (45) *Jagdpanthers*.

Heavy Army *Panzerjäger Abteilung* 559, which was located at the Mielau troop training camp, was chosen to be the mixed unit. The next troop unit to be reorganized was Heavy Army *Panzerjäger Abteilung* 525, which was still using its “Hornisse” *Panzerjäger* (8.8 cm Pak 43/1 (Sf); Sd Kfz 164) to fight against Allied tanks in Italy. The conversion of *Abteilung* 559 was already begun in August 1944, and parts of the 525<sup>th</sup> were withdrawn from Italy to be changed to *Jagdpanthers*. Many orders and instructions from the Führer’s conferences were often carried out before Hitler learned of it—and so were these changes. General Guderian and others often had a hard time convincing Hitler of the good results of these changes after the fact.

After they had lost their last seven 7.5 cm Pak 40 Self-propelled Mounts on 38(t) Chassis on the eastern front by February 10, 1944, the 559<sup>th</sup> was ordered to Mielau on February 21, 1944. In March 1944 two *Jagdpanther* were ready for training use at Mielau. The 559<sup>th</sup> received its first five *Jagdpanthers*, which had left the Army Equipment Office by train on May 18, 1944. There was a long pause, and only between August 21 and 25, 1944, were 28 assault guns and eleven *Jagdpanthers* sent to the unit by rail. The last of the 17 *Jagdpanthers* arrived late, and left the Army Equipment Office on September 3, 1944. Immediately after that the 559<sup>th</sup> was ordered to the western front. After they had left Mielau on September 1, 1944, they were unloaded in Utrecht, and reported as ready for action on September 6, 1944. It was not unusual for units that had just been refreshed with new equipment to be sent to the front immediately. There was scarcely time to get acquainted with their equipment, to say nothing of carrying out practical training. Practice in large bands was almost impossible. On September 29, 1944—the 559<sup>th</sup> still had just nine *Jagdpanthers* (three ready for action) and eight assault guns (all in need of



This *Jagdpanther* was put out of action by two KE hits in the engine compartment. In the right background is a Type M36 American tank, also shot down. This picture was taken on March 17, 1945. Until February 1945 the *Jagdpanthers* received a third equipment container, which was mounted on the left side of the engine compartment cover. The new leading wheels with doubled ribbing were produced sporadically from October 1944 on.



A *Jagdpanther* of Heavy *Panzerjäger Abteilung* 654 in Alsace, 1944.



In the west, most armored vehicles were lost to the overwhelming action of Allied fighter-bombers.

repairs)—it was assigned to the LXVII. Army Corps of AOK 15, Army Group B. The 559<sup>th</sup> reported three *Jagdpanthers* and five *Sturmgeschütz* III ready for action on October 4, 1944. They were sent twelve *Sturmgeschütz* III as replacements. On November 1, 1944, the *Abteilung* was still in combat action, and reported the following vehicle situation: six *Jagdpanthers* in the 1<sup>st</sup> Company, only one ready for action, and 15 *Sturmgeschütz* III, three of them ready for action.

The third unit to use the *Jagdpanther* in action was Heavy *Panzerjäger Abteilung* 519. They were almost wiped out in the heavy fighting of Army Group Center in the east in June and July 1944, and lost all their "Hornisse" tank destroyers. In August 1944 they returned to Mielau, and on August 22, 1944, they were reorganized with a complete array of 17 *Jagdpanthers* and 28 assault guns:

<i>Jagdpanther, Abteilung</i> Staff K.St.N. 1106	3/1/1944
Staff Company K.St.N. 1154a	3/1/1944
1 <sup>st</sup> <i>Panzerjäger</i> "Panther" Company K.St.N. 1149	4/1/1944
2 <sup>nd</sup> <i>Panzerjäger</i> Assault Gun company K.St.N. 1149	4/1/1944
3 <sup>rd</sup> <i>Panzerjäger</i> Assault Gun Company K.St.N. 1149	4/1/1944

The 28 *Sturmgeschütz* III were loaded on the train on September 6, 1944; the 17 *Jagdpanthers* followed between September 14 and 27, 1944.

Loaded on six freight trains, the 519<sup>th</sup> left Mielau heading west on the morning of 8 October. The last train arrived for unloading on October 11, 1944. Under Army Group G, tactically subordinated to the LXXXI. Corps, the 519<sup>th</sup> reported on their complement of *Jagdpanthers*:

Date	Total	Ready	In Repair	Total losses
October 22	17	11	6	0
October 29	14	5	8	3
October 31	14	7	7	0
November 1	14	10	4	0
November 4	14	12	2	0
November 24	11	4	7	3
November 28	10	1	9	1
December 1	10	2	8	0
December 6	9	4	5	1
December 10	9	1	8	0
December 15	9	4	5	0

The average combat strength of nine combat-ready *Jagdpanthers* in October 1944 sank to seven in November, and finally to three that were still available in the first half of December. Although the units were assigned sufficient numbers of armored vehicles to reach the specified war strengths, their vehicles were decimated quickly in unbroken heavy fighting, so that in most cases the units had only a fraction of their planned combat strength.

To support the planned western offensive in December 1944, the Army High Command prepared five heavy Army *Panzerjäger Abteilungen* with *Jagdpanthers*. Of these five units, three (the 654<sup>th</sup>, 559<sup>th</sup>, and 519<sup>th</sup>) were already at the front. They no longer had their full war strength. Two other *Abteilungen*, the 560<sup>th</sup> and 655<sup>th</sup>, were just being newly equipped at the Mielau *Panzerjäger* School.

The 560<sup>th</sup> *Abteilung* had already been waiting for their equipment at Mielau since April. Finally, on October 25, 1944, four *Jagdpanthers* were sent out by the Army Equipment Office. Four followed on 22 November, one *Jagdpanther* on 30 November, and four on 6 December. In addition—instead of *Sturmgeschütz* III—31 *Panzer IV/70 (V)* tanks were sent to the 560<sup>th</sup> *Panzerjäger* Unit between 6 October and 2 December. The 560<sup>th</sup> Unit loaded up for the western front on December 3, 1944, and arrived in the Rommerskirchen-Niederhausen area on December 8, 1944.

The last unit that was prepared for action in the west was the 655<sup>th</sup>, which in August 1944—except for the 3<sup>rd</sup> Company, which was on the eastern front—returned to Mielau. Five *Jagdpanthers*

were sent to the 2<sup>nd</sup> Company on November 24, 1944. The last nine *Jagdpanthers* did not leave the Army Equipment Office (HZA) until 24 December—too late to take part in the Ardennes Offensive. Again, the HZA sent 28 *Panzer IV/70 (V)* instead of Assault Gun III to outfit two companies. They reached the 655<sup>th</sup> on November 25, 1944; three *Panzer IV/70 (V)* for the unit staff followed on 7

#### *Jagdpanther* Strength

Unit	Planned	Present	Notes
s.H.Oz.Jg.Abt. 654	45	24	10 more arrived by 12/25/44, 10 more assigned by HZA on 12/21 but did not arrive until January.
s.H.Pz.Jg.Abt. 559	14	5	8 more sent 12/13/1944 but did not arrive until January.
s.H.Pz.Jg.Abt. 519	14	9	4 ready, 4 more sent by HZA on 12/15/44 but did not arrive until January
(6 <sup>th</sup> <i>Panzer</i> Army)	14	13	11 ready for action.
s.H.Pz.Jg.Abt. 560	14	0	<i>Jagdpanthers</i> did not reach front until 1/15/1945.
s.H.Pz.Jg.Abt. 655			

Of the planned 56 *Jagdpanthers*, there were actually only 27 with Army Group B at the beginning of the Ardennes Offensive. When the attack began on December 16, 1944, some 17 of them (not more than 20) were ready for action. The three *Abteilungen* that took part in the offensive reported five *Jagdpanthers* as total losses, plus additional losses to enemy action and mechanical damage. On December 30, 1944, two of the 559<sup>th</sup> *Abteilung*'s *Jagdpanthers* were ready for action, two were in the workshop, and one was a total loss.

The 519<sup>th</sup> s.H.Pz.Jg.Abt. reported four *Jagdpanthers* ready for action; five were being repaired. No report from the 560<sup>th</sup> s.H.Pz.Jg.Abt. had come in by the end of the year. This unit was subordinated to the 12<sup>th</sup> SS Armored Division "Hitler Youth," which had been in heavy fighting. From other units' reports it can be assumed that four *Jagdpanthers* were lost in December. The 654<sup>th</sup> s.H.Pz.Jg.Abt., which was in action further south, listed its *Jagdpanther* numbers on December 30, 1944, as 28 ready for action and seven needing repairs. The *Abteilungen* requested additional

December. Leaving the *Jagdpanther* Company behind, the 31 *Panzer IV/70 (V)* set out for the eastern front at the beginning of December 1944, and rolled off the railroad cars at Mönchengladbach on 9 December.

The number of *Jagdpanthers* at the front at the beginning of the Ardennes Offensive on December 16, 1944, was as follows:

*Jagdpanthers* to replace their losses in the west. The 560<sup>th</sup> s.H.Pz.Jg.Abt. received two *Jagdpanthers* on January 15, 1945, the 559<sup>th</sup> got six on 18 January, and the 519<sup>th</sup> also got six on January 22, 1945. A situation report from the west on February 5, 1945, shows high numbers of combat ready vehicles and relatively few total losses for January:

Unit	Total	Ready	Total losses
s.H.Pz.Jg.Abt. 654	41	26	3
s.H.Pz.Jg.Abt. 519	11	9	8
s.H.Pz.Jg.Abt. 560	6	3	5
s.H.Pz.Jg.Abt. 655	14	12	0
s.H.Pz.Jg.Abt. 559	18	?	0

Thirty more *Jagdpanthers* were sent to units in the west in January 1945. Ten of them were assigned to the 654<sup>th</sup> s.H.Pz.Jg.Abt. on January 25, 1945, and ten to the 655<sup>th</sup> on January 29, 1945. But none of these *Jagdpanthers* reached the troop units before the strength list above was compiled.

Not a single *Jagdpanzer* went to a unit on the eastern front in 1944. Finally, on January 13, 1945, ten *Jagdpanzers* moved to the eastern front. Five went to s.H.Pz.Jg.Abt. 563, and five to the 1<sup>st</sup> Company of s.H.Pz.Jg.Abt. 616. Since they had to be rerouted in transit, they reached the troops only much later than had originally been planned. Nine more *Jagdpanzers* were sent to the east on January 15 and 16, 1945.

The Commander of Heavy Army *Panzerjäger Abteilung* 563 sent the following report to his superior officers on February 2, 1945:

**s.H.Panzerjäger-Abteilung 563 O.U., 2/2/1945**  
**Report on Establishment and Action of the Abteilung in the period from 12/1/44 to 1/31/45**

The *Abteilung*, coming from Courland, arrived in Mielau with staff and three companies. According to Verfg.Gen.Insp.d.Pz.Tr. the unit was supposed to be set up as a heavy Army *Panzerjäger Abteilung* and armed as follows:

- 1 *Jagdpanzer* Company
- 2 *Jagdpanzer* IV (Pz. IV/7.5 cm KwK 42) Companies
- Staff Company
- Supply Company
- Armored Workshop Platoon

On 1/16/1945 the basic training for the three companies was finished. On 1/17/1945 the *Abteilung*, with all its combat parts, was applied with infantry in the Grudusk area. During this action the *Abteilung* lost 55 men (specialists, commanders, gunners, drivers, etc.).

At the beginning of the action there were 150 men under command (quartermaster training, tank mechanic training, tank radioman training, towing commands), plus those on furlough. 35 vehicles are in vehicle repair shops, 10 vehicles are in the *Abteilung* repair shop, and 23 vehicles were turned over to the camp commander at Mielau and have not returned to the unit. The *Abteilung* should receive its weapons at Soldau, on command of the Army Group. It lost another 16 special vehicles (including repair services) during a breakthrough of Russian tanks. In changing the order, the assigned vehicles (24 *Jagdpanzer* IV, 18 *Jagdpanther*) were sent to Allenstein. The following were to be equipped with them:

- 2 companies with 12 *Jagdpanzer* IV each,
- 1 company with 9 *Jagdpanther*.

plus the 3/Pz.Jg.Abt. 616, subordinated to this unit, with 9 *Jagdpanther*. The lack of manpower was made up by scattered members of other troop units.

Setting up in Allenstein began on 1/20/1945, at 10:00 AM, and was finished on 1/21/1945 at 7:00 AM. As a result of the short time available, the armored vehicles could only be checked out in a makeshift manner by the replacement *Abteilung*. Firing-in was not possible, as drivers were sent in part from East Prussian replacement *Abteilungen*. The men were completely exhausted from previous infantry actions. No room for trucks was provided.

On 1/21/1945 the *Abteilung* marched into action in two groups. Since then, the *Abteilung* has been involved in the fighting north of Allenstein, south and west of Gutstadt, has taken Liebstadt, and is now fighting in the Wormdit area. Within ten days the *Abteilung* shot down 58 enemy tanks. On the other hand, one *Jagdpanther* and 4 *Jagdpanzer* IV were lost.

Blown up for lack of fuel:

- 8 *Jagdpanther*
- 4 *Jagdpanzer* IV

Blown up after getting stuck:

- 1 *Jagdpanther*
- 8 *Jagdpanzer* IV

Blown up because of longtime repairs:

- 3 *Jagdpanther*
- 5 *Jagdpanzer* IV

With the present personnel situation, the *Abteilung* can immediately operate 15 *Jagdpanther* or *Jagdpanzer* IV.

Major and *Abteilung* Commander

Other conditions (not enemy action) had decimated the 563<sup>rd</sup> s.H.Pz.Jg.Abt. so heavily that on February 1, 1945, it had only five *Jagdpanthers* and three *Panzer* IV/70 (V) ready for action. On February 18, 1945, the 563<sup>rd</sup> *Abteilung* was disbanded. The Third Company of Unit 516, with seven *Jagdpanthers*, was subordinated to the 131<sup>st</sup> Infantry Division.

As of January 1945 the reports of destruction increased everywhere. Without regard for current guidelines, formations, or lack of trained *Jagdpanzer* crews, *Jagdpanthers* were sent directly into the nearest front lines.

In addition to the replacement vehicles for already existing heavy Army *Panzerjäger Abteilungen*, *Jagdpanthers* were assigned to *Panzer* regiments and *Panzerjäger Abteilungen*, which were structured organically like the *Abteilungen* of armored divisions:

Month	Number	Shipped	Unit	Front
January	14	Jan. 22	1.Abt./Pz.Rgt.29	East
January	14	Feb. 10	1.Abt./Pz.Rgt.130	West
February	14	Feb. 14	2/SS Pz.Div.	East
	8	Feb. 14	4. Pz.Div.	East
	10	Feb. 14	9.SS Pz.Div.	East
	10	Feb. 15	Führer Gren.Div.	East
	6	Feb. 24	s.H.Pz.Jg.Abt. 654	West
	10	Feb. 28	10.SS Pz.Div.	East
	5	Mar. 13	s.H.Pz.Jg.Abt. 559	West
March	11	Mar. 27	s.H.Pz.Jg.Abt.	560
West	4	Mar. 27	Supply	West
	4	Mar. 30	25.Pz.Div.	East
		Apr. 7	2.Pz.Div.	West
April	35	Apr. 8	s.H.Pz.Jg.Abt. 655	West
	10	Apr. 8	s.H.Pz.Jg.Abt. 559	West
	10	Apr. 17	s.H.Pz.Jg.Abt. 559	West
	9	Apr. 21	s.H.Pz.Jg.Abt. 559	West

The greatest number of *Jagdpanthers* in action was reported on March 15, 1945:

Unit	Ready	in Repair	Assigned
Eastern Front:			
Pz.Div. "Holstein"	0	0	10
10.SS Pz.Div. "Frundsberg"	1	5	
9.SS Pz.Div. "Hohenzollern"	6	4	
Führer-Gren.Div.	2	5	
2.SS Pz.Div. "Das Reich"	10	0	
s.H.Pz.Jg.Abt. 560	7	6	
8. Pz.Div.	2	4	
25. Pz.Div.	0	0	4
4. Pz.Div.	3	0	
1.Kp.s.Pz.Jg.Abt. 563	3	4	
Western Front:			
s.Pz.Jg.Abt. 655	4	7	
s.Pz.Jg.Abt. 654	12	27	
s.Pz.Jg.Abt. 559	2	7	5
Pz.Lhr.Div.	5	7	35
s.H.Pz.Jg.Abt. 519	2	10	

The last available situation report of April 10, 1945, shows how catastrophically the situation had worsened a month before the war ended:

Unit	Ready	in Repair
Eastern Front:		
8. Pz.Div.	2	2
1.SS Pz.Div. "Frundsberg"	3	3
25. Pz.Div.	2	4
Führer-Gren.Div.	2	3
2.SS Pz.Div. "Das Reich"	2	0
Western Front:		
Pz.Lhr.Div.	0	1
s.Pz.Jg.Abt. 654	5	24
s.Pz.Jg.Abt. 519	0	0

Not all *Jagdpanther* units could report at that time. According to this list, there were only 16 *Jagdpanthers* ready for action, although various units took on 71 new *Jagdpanthers* in all during April 1945.

In the last month of the war, despite tremendous problems, such as transport difficulties, power failures, bomb attacks, destroyed factories, and fuel shortages, the last *Jagdpanthers* were finished and sent to army units to defend the homeland. This story was recorded for the future in the following excerpts from commands, communications, Hitler's speeches, and decisions:

- 4/1/1945: Produced in March and immediately available: 7 *Jagdpanthers* in Wünsdorf and 8 *Jagdpanthers* in Braunschweig.
- 4/5/1945: s.Pz.Jg.Abt. 519 is to transfer to Weissenfels area to Army Group G, where it receives *Jagdpanthers* from the *Panzer-Zeuamnt* in Braunschweig.
- 4/5/1945: s.Pz.Jg.Abt. 655, under Pz.AOK I, withdrawn to the area northeast of Suhlingen for repairs (90% long-term).
  - 1<sup>st</sup> Company: 7 *Jagdpanzer* IV L/70
  - 2<sup>nd</sup> Company: 8 *Jagdpanther*
  - 3<sup>rd</sup> Company: 5 *Jagdpanzer* IV L/70
  - Panzer* Flak Platoon: 3 Flak-*Panzer* IV (2 cm quad); 3 Flak-*Panzer* IV (3.7 cm)
  - Repair Shop Platoon: 1 *Bergepanzer*

4/5/1945: The 35 *Jagdpanthers* ready for action in the Braunschweig area and their crews bypass Army Group G to fill the 2nd Panzer Division in Schweinfurt. s.H.Pz.Jg.Abt. 519 is to go to the 2nd Panzer Division's area. Unit and Division receive 35 *Jagdpanthers* in Schweinfurt-Bamberg area by order of OKW.

4/6/1945: S.Pz.Jg.Abt. 159 gets no *Jagdpanthers* at first. *Oberschirmmeister* Ziegler called by Zeugant in Brandenburg, 5:30 PM.

35 *Jagdpanthers* for 2nd Pz.Div. are ready with Pz.K. and Fahrt Nr. Lacking are 35 SSyms-Wagen, 12 G.-Wagen, 4 M.-Wagen & Schutzwagen. Major Ditzer, GenStd/HF.-Amt, was informed by Org.K. at 5:45 PM and will do everything to get the vehicles moved again at once.

In the Zeugant at Braunschweig are still 2 *Jagdpanthers*; 6 more will be Ready by 4/8—Assignment?

At M.N.H. in Hannover-Laatzten, 9 *Jagdpanthers* are ready for action. They must be moved overland, as no way of loading is possible. No fuel on hand.

Assignment? (a pick-up command of the 5th SS-Pz.Div. under command of *Hauptsturmführer* Nicolussi-Leck had taken 7 *Jagdpanther* from this last batch finished by M.N.H. in Hannover. The writer took part in this act.

4/10/1945: Call from *Obstlt.* Rudolph, *Wehrmacht*-Kdtr., from Braunschweig, 2:45 AM: 10 *Jagdpanthers* and 1 *Bergepanther* are underway by rail to Soltau with full crews, ammunition, and fuel, commanded by an officer.

1. *Hauptmann* Köppen (of Pz.Tr.Schule Bergen), appointed leader by *Obstlt.* Rudolph at M.N.H. in Hanover that evening, was ordered:

Bring all Panther hulls shoveled free at M.N.H. by 4/8 to Braunschweig. In all, 2 *Jagdpanther* hulls (complete minus guns) and 1 *Jagdpanther* hull (no turret, damaged motor) were brought to Wefensleben, near Helmstedt. Two possibilities:

- These hulls as recovery hulls for II/Pz.Rgt.130.
- Load in Helmstedt, toward Altengrabow, decision requested. Depends on enemy situation.

2. At MIAG in Braunschweig 1 test model (*Jagdpanther*) on hand, plus 2 hulls with motor, gearbox, reduction gears, now lacking swings, road wheels, and tracks.

Suggestion:  
Move these vehicles without delay and transport toward Altengrabow. Deliver the test model, ready today, to s.Pz.Jg.Abt. 655.

Also on hand are:  
3 complete hulls with guns built in, plus 3 complete hulls without guns.

The neutralizing order given the evening of 4/7 for MIAG was lifted on 4/9 at 11:00 AM by camp commander in touch with Rüstungs-Kdo, and an emissary from Rm. Speer. Firm decides, beginning 4/10, to finish the vehicle. Crew here guaranteed. Whether attempt succeeds depends on enemy situation. Decision required.

4/15/1945: At M.B.A. firm, Drewitz, Potsdam, 11 *Jagdpanthers* are to be picked up by Pz.Jz.Abt. 559.

4/19/1945: Refreshing of 7th Panzer Division.  
Pz.Jg.Abt. 559: 20 *Jagdpanthers*  
2./H.Pz.Jg.Abt. 559 takes over 2 *Jagdpanthers* in Döberitz by evening. Further 7 *Jagdpanthers* in 3 to 4 days.

State of assembly of *Jagdpanther* for Abteilung 559 by MBA firm in Drewitz:  
1 *Jagdpanther* finished 4/18  
1 *Jagdpanther* finished 4/19, evening  
7 *Jagdpanthers* probably finished in 3 days. 14 *Jagdpanthers* still lack guns (are being sent by truck).  
Finished at M.B.A. in Potsdam-Drewitz are:  
4/20/1945: 4 *Jagdpanthers*  
5 *Jagdpanthers* will be finished by 4/22. 9 *Jagdpanthers* in all.  
4/20/1945: s.H.Pz.Jg.Abt. 559 with Staff Company, one Company and Workshop Platoon is tactically subordinated to 7th Panzer Division. Unit has already joined Division. Situation:  
9 *Jagdpanther*.  
4/26/1945: s.H.Pz.Jg.Abt. 559 subordinated to 7th Panzer Division with 16 *Jagdpanther* (of which 12 are ready for action).  
4/28/1945: Subordinated to Pz.Gren.Div. "Clausewitz."  
Pz.Abt. 106 (FHH) 3 Pz.V. and 4 *Jagdpanther*.  
The problems that arose in *Jagdpanther* action are clarified in the following report:

**Oberleutnant Bock O.U., April 11, 1945**  
**Aussenstelle des Gen.Insp.**  
**Der Panzertruppen**  
**Travel Report**  
**For the time of April 8-10 1945**

I had the task of collecting condition reports from the armored divisions of the 6th Panzer Army and 8th Army, and determine why in the Heavy Army *Panzerjäger Abteilung* 560, during their transfer movements in Hungary, an unusually great number of tank destroyers were blown up.

I got back to the Commander of the Heavy Army *Panzerjäger Abteilung* 560, at the time subordinated to the 12th SS Panzer Division "Hitlerjugend," about the extremely numerous blowing up of *Jagdpanthers* in their transfer movements in the Hungarian-German borderlands, with these results:

The *Abteilung* was subordinated to the 12th SS Panzer Division H.J., and served as the 3rd *Abteilung* of the Panzer Regiment. The Supply Company of the *Abteilung* was assembled with the supplying parts of the Panzer Regiment as so-called Supply Group. Likewise, the recovery services of the *Abteilung* were absorbed by the Regiment, in order to have the recovery and repair services centrally. Thus, the *Abteilung* Commander had all influence on supplying and

repairs taken from him. Since the Ordnance Officer of the *Abteilung* had to be commanded to the Regiment, there was no man on hand who could take care of these things within the *Abteilung*.

In the transfer movements from Bakony Wald to denburg, the *Abteilung* was issued absolutely no fuel. If the nine *Panzerjäger* IV and 3 *Panzerjäger* 5 still on hand could have been saved, it would only have been by taking fuel ruthlessly from strange units.

Most of the exploding are attributable to a lack of organization in recovery, which was to be carried out centrally by the Regiment. First priority went to recovering the regimental vehicles, while recovery of the *Jagdpanther* of the Heavy Army *Panzerjäger Abteilung* 560 was always pushed off until last.

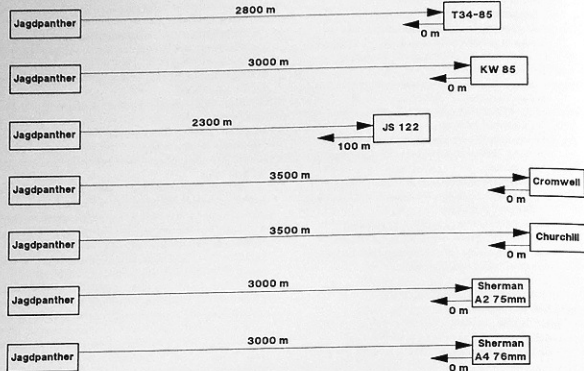
In most cases it was then already too late to carry out a recovery, since as a result of the lacking steadfastness of our own infantry, the Russians had already overrun the positions of the *Jagdpanther*, although the *Jagdpanther* had only gotten stuck or broken down with minor technical defects. For example, the first attempt to recover a *Jagdpanther* that had gotten stuck on 3/8/45 only took place on 3/21/45.

Constant requests and urgent pleas of the *Abteilung* commander to the Regiment and the Division for detailing of means of recovery remained unsuccessful in by far most cases, or were returned with the note that there were no means of recovery available, and if need be, the vehicle should be blown up. The Panzer Regiment was completely in control of the *Jagdpanther*, and assigned repaired *Jagdpanther* in particular to whichever units they chose, without even notifying the *Abteilung*, so that the *Abteilung* Commander never knew how many usable tank destroyers the *Abteilung* had on hand at the moment, or where the individual ones were located.

Another reason for the losses of numerous *Jagdpanther* is their tactically changed action. The tank destroyers were used almost without exception in the manner of assault guns, in the applicable cases left to get by against the enemy along with infantry as night troops. For a vehicle that can shoot only to the front, this is obviously unfavorable, for it must turn around before taking any position. In some situations it was ordered to dig in damaged *Jagdpanther*, an impossible action for a vehicle with only a frontal weapon. The result was the loss of these vehicles, which had to be blown up to prevent them from falling into enemy hands.

As a result of the fact that the Panzer Regiment had not only the tactical action, but also the supplying, recovery, and repairing fully in their hands, there was no chance of rational leadership of the *Abteilung* by its commander. The *Abteilung* Commander was more or less a mere company leader within the Panzer Regiment.

Comparison Jagdpanther versus Enemy Tanks



Notes: Penetration data are reckoned on front shots at 60-degree angles.

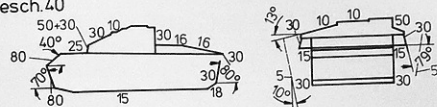
In all, the *Jagdpanther* was far superior to any American, British, or Russian tank (see also comparison "*Jagdpanzer* versus Enemy Tanks"). The same applied to the antitank cannons. The only sure way of stopping the *Jagdpanther* at normal combat distances—even with superfast, undercaliber ammunition—was by hitting it on the sides or the rear. Only one picture shows a shot that penetrated the front bow plate. This shot, though, for

experimental purposes, could only have been fired from the closest range. In frontal fire, only lucky shots at the driver's sight opening, or at the tracks and intermediate gears could make the vehicle immobile. Even then, side hits were necessary to put the *Jagdpanther* completely out of action. Its greatest adversaries were not the Allied tanks, but the shortage of fuel, the lack of spare parts, and the delays in starting and finishing production, which prevented the action of a greater number of *Jagdpanthers*.

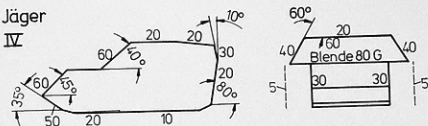


Meppen, May 31, 1945: The war is over: The Canadian General G. G. Simonds examines a *Jagdpanther*. Chassis no. 320795 shows that this was one of the last that were made by the MBA firm. It was assigned to Heavy Panzerjäger Unit 559.

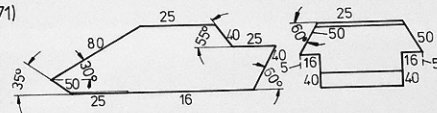
7,5 cm Sturm-Gesch. 40 Ausf. G



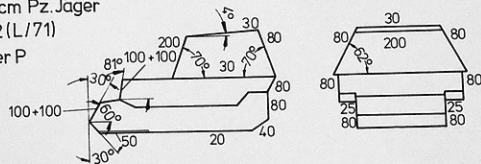
7,5 cm Pz. Jäger 39(L/48) IV



8,8 cm Pz. Jäger 43/3 (L/71) Panther



8,8 cm Pz. Jäger 43/2 (L/71) Tiger P



Secret Command Matter

F3a-ErB/2	State as of 11/1/1943	WaPrüf 6 F3a
Armor Thicknesses and Inclinations		

## Ferdinand/Elefant

The heavy tank destroyer "Ferdinand/Elefant" goes directly back to the failed development of the Tiger tank, Porsche version, VK 4501 (P).

Single Porsche vehicles that were built as tanks were delivered until October 1942, and tested at the troop training camp of Dollersheim, in the Waldviertel of Austria, or used for instructional purposes.

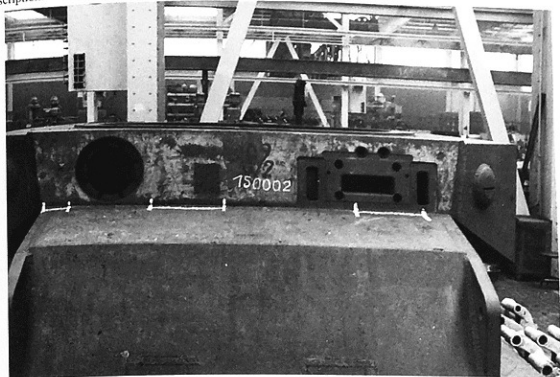
Basic motor and gearbox problems of the Porsche vehicles could not be cured in the short times that were available. In August 1942 the Steyr-Daimler-Puch firm, Werk Nibelungen GmbH, in St. Valentin halted the already begun production of the VK 4501 (P). Krupp, on the other hand, had already fulfilled its contract for 100 armored bodies for this vehicle.



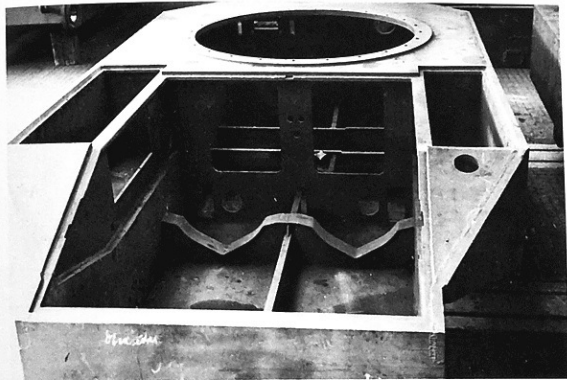
Tiger Tank, Porsche VK 4501 (P) version.

At the Führer's conference on September 2, 1942, it was decided to build some of the Porsche Tigers as assault guns with 200 mm front armor. The primary weapon—as opposed to the tank with the 8.8 cm *Kampfwagenkanone L/56*—was planned as the outstanding 8.8 cm Pak 43 L/71. This weapon deserves a closer technical description:

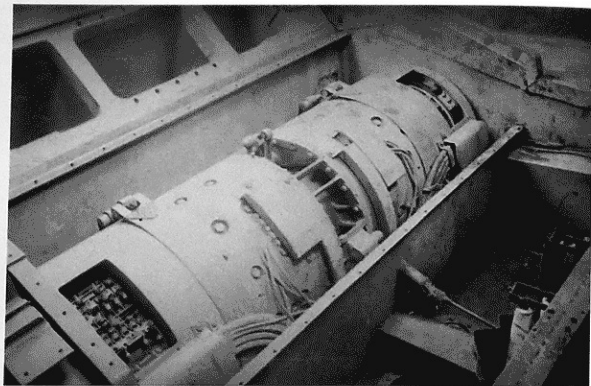
The 8.8 cm *Panzerabwehrkanone 43/2 (L/71)*, a semi-automatic weapon with electric firing, was mounted on the assault-gun mount. It fired explosive and antitank shells (cartridge ammunition). For direct aiming the *Selbstfahrlafetten Zielfernrohr 1a* was used, for indirect aiming the *Rundblickfernrohr 36*.



The Tiger (P) hull seen from the front (chassis no. 150002)

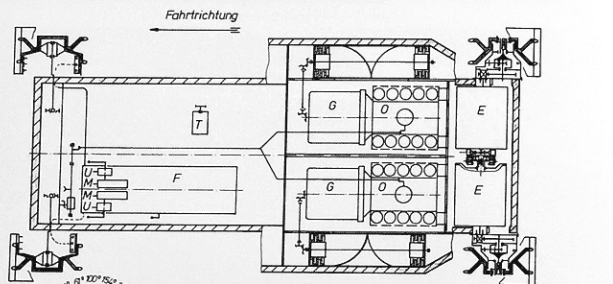


The same hull from the rear, with closed fighting compartment and attachment for the turret turning rail. In back is the mount for the two Porsche 10-cylinder gasoline engines.



The two Siemens Type D 1495a AC electric motors, which were fed by two Siemens Type aGV generators. The drive was at the rear.

### Antriebs - Schema des Porsche-Tiger Typ 101



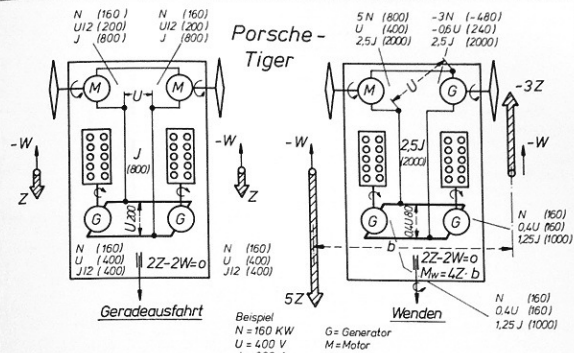
- Stellung 0°: volle Vorwärtsfahrt
- 61°: Beginn d. Fremderregung
  - 100°: voller Kurzschluss der Hauptstromwicklung
  - 154°: volle Stärke d. Fremderregung.
  - Beginn d. umgekehrten Haupterregung.
  - Einsetz der Öldruckbremse
  - 254°: äußerste Bremsstellung, volle Rückwärtsfahrt

- Stellung I: Generator I u II parallel
- II: Anlasser Generator I u II
  - III: Fahren mit Generator I u II in Reihe
  - IV: Fahren mit Generator I
  - V: Fahren mit Generator II

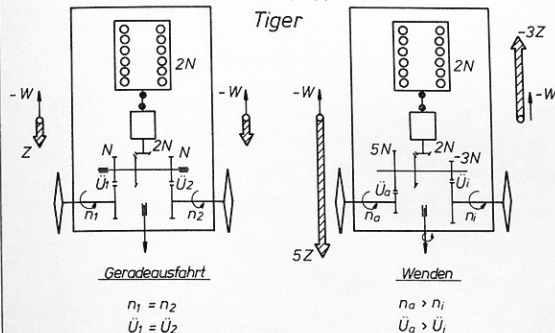
- G Generator
- O Offmotor
- E Elektromotor
- F Fahrschalter
- R Regler für Generatorfremderregung
- U Umkehrdrehregler
- M Regler für Motorfremderregung
- E Elektrischer Turbintrieb

Institut für Kraftfahrwesen Dresden	
VK 4501(P) Typ 101	
Porsche-Tiger	
Antriebs - Schema	
30.10.42	120-12

Drive schematic of the Porsche Tiger (Porsche Type 101).



### Henschel-Tiger



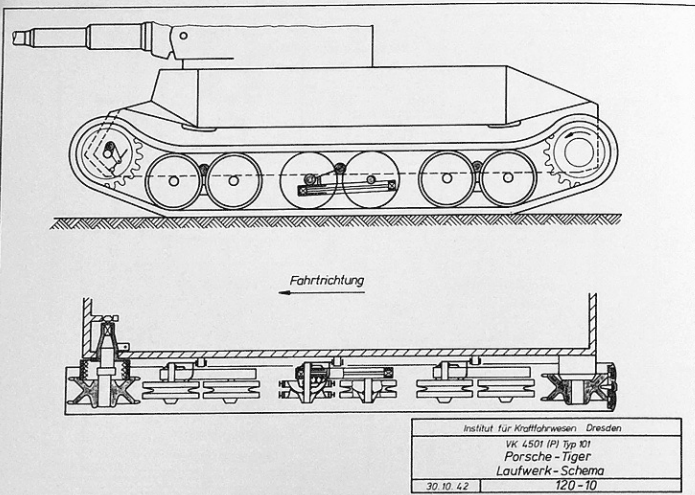
Institut für Kraftfahrwesen Institut für Starkstrom - Technik TH Dresden	
Analogie des Wendevorganges	
30.10.42	120-10

Analogy of the steering process: above Porsche Tiger, below Henschel Tiger (among others, also used in the Jagdiger).

## Measurements, Weights, and Performance Data of the 8.8 cm Pak 43/2

### Barrel

Dimensions:			
Caliber	8.8 cm		
Barrel length	6300 mm		
Barrel length in caliber	71		
Barrel length with muzzle brake	6686 mm		
Distance from rear breech surface to front cotter slot surface	290 mm		
Length of bore from front cotter slot surface to muzzle	6010 mm		
Length of rifled part	5150.5 mm		
Length of rifled part in calibers		58.5 mm	
Riflings:			
Number			32
Depth		1.2 mm	
Width		5.04 + 0.6 mm	
Width of fields		3.6 - 0.6 mm	
Loading space			
Diameter of the rear conical part			
In back		132.4 mm	
In front		123.9 mm	
Diameter of front conical part (transitional)			
In back		92.5 mm	
In front		88.0 mm	
Length of loading area		859.5 mm	
Pitch of rifling		6 degrees 30 minutes (27.57 cal.)	



Porsche Tiger; running gear schematic; it was taken over unchanged for the Ferdinand.

### Weights

Barrel, with breech and muzzle brake	1690 kg
Barrel with breech	1628 kg
Full barrel	1225 kg
Breech	block without breech
275 kg	
Clamp bolt	26 kg
Breech wedge with inner parts	50 kg
Breech wedge with moving parts	70 kg
Muzzle brake	62 kg
Barrel brake	65 kg
Barrel recuperator	50 kg
Total weight of gun	200 kg

### Ammunition

Pz.Gr.39/1 (shot weight)	10.2 kg
Spr.L/4.7 (shot weight)	9.4 kg
Gr.39 HL (shot weight)	7.65 kg
Pz.Gr. 40/43 (shot weight)	7.3 kg

### Performance

Muzzle velocity (Pz. Gr. 39/1)	1000 m/sec
Muzzle velocity Spr. L/47	700 m/sec
Muzzle velocity (Gr.39 HL)	600 m/sec
Muzzle velocity (Pz.Gr.40/43)	
Actual gas pressure	3000 kg/cm <sup>2</sup>
Designed gas pressure	3700 kg/cm <sup>2</sup>
Maximum range (18-degree elevation)	

### Mount

Dimensions:	-8/+18 degrees
Elevation	
Traverse to left and right	15 degrees each at firing height

### Barrel Brake

Median braking power	6300 kg
Fluid contents	5.4 liters
Recoil length, normal	550 mm
Recoil length, max. "firing pause"	580 mm

### Barrel Recuperator

Initial air pressure	50 kg/cm <sup>2</sup>
Fluid contents	5.3 liters

### Targeting

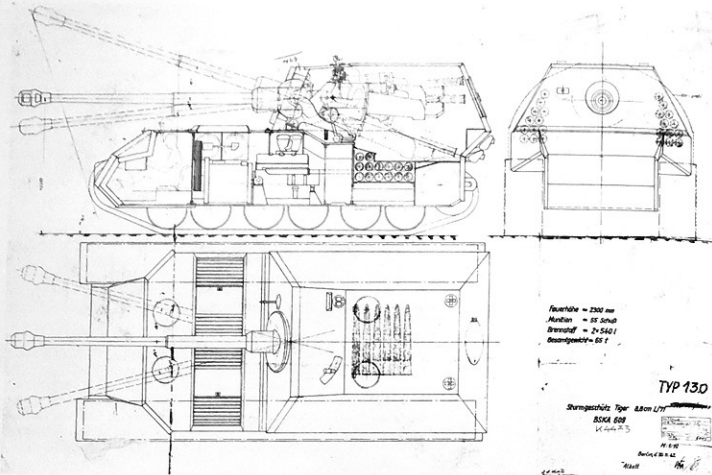
Division of the sight drum	
For Pz.Gr. 39/1	0-5000 meters
For Spr. L/4.7	0-5400 meters
For Gr.39 HL	0-3000 meters
For Pz.Gr. 40/43	0-4000 meters
Calibration, fine	0-100-
Calibration, crude	0-300-
Terrain angle measurement, fine	0-100-
Same, crude	100- -500- (300- = 0)
Calibration for traversing drive, left/right	20- each

Although the Tiger hulls were at first supposed to be sent to Essen for rebuilding, it was decided to have the Eisenwerke Oberdonau in Linz do that. This firm was very close to the Nibelungengerwerk assembly factory in St. Valentin.

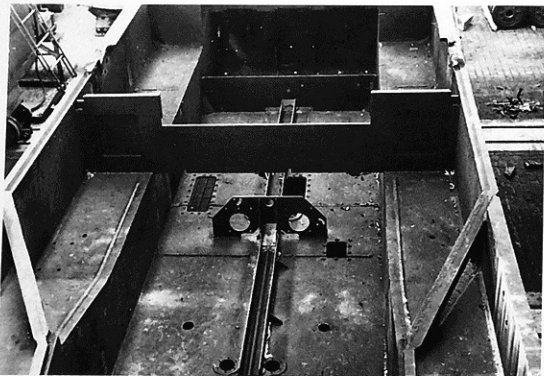
The Altmärkische Kettenwerk GmbH (Alkett) in Berlin was contracted to draw the design plans for the rebuilding of the tank into an assault gun. Alkett had finished this job on November 30, 1942. The weapon position and the 200-meter front plate of the now-fixed body lay directly over the vehicle's center of gravity. To assure enough room for the barrel recoil and cartridge ejection, the back of the body was extended to the end of the hull. The ball mantlet for the secondary armament, a machine gun, was intended to be to the right of the primary weapon in the front body plate. The sighting means consisted of a periscopic targeting scope, whose head passed through a curved flap in the roof; a fixed periscope for the commander, who had an opening in the roof for his shear scope (SF 14 Z); and three turning periscopes at the right and left in and out through two round hatches in the roof (commander and aiming gunner), and one large round opening in the back plate of the body.

Armor plate 30 mm thick was screwed onto the lower hull front, plus a 100 mm plate on the upper hull bow. An additional 80 mm plate at a 55-degree angle strengthened the driver's area in the front. The original estimate of the gross weight of the rebuilt Porsche-Tiger "Ferdinand" was 65 tons. At a meeting on December 11, 1942, a weight of 72 tons was mentioned. The original Tiger (P) weighed 59 tons, or 49 tons without the ten-ton turret. Then came the new fixed body at 15 tons, 3.5 tons for the cannon and its





On September 22, 1942, it was ordered that some of the Porsche Tigers be built as assault guns with the 8.8 cm Kanone L/71. Alkett had finished the rebuilding plans on November 30, 1942.



The tank hulls were rebuilt by the Eisenwerke, Oberdonau in Linz, and turned over to the Nibelungenwerk in St. Valentin.



The finished product in its full size. The Ferdinand was presented as ready for acceptance by the Army Ordnance Office. The official paint was dark yellow, with the national emblem on either side.

mount and shield, 3 tons for added armor plate, and finally 1.5 tons to strengthen the rear wall.

On December 28, 1942, complete calculations were available, and the entire design was reworked and lightened. The rebuilt hull, including 1000 liters of fuel, weighed 46.48 tons, the body 13.55 tons, the cannon with mount and shield 3.53 tons, the added front armor 2.13 tons, the ammunition including racks 1.25 tons, and the crew, tools, and spare parts around 1.63 tons. Thus, the fighting weight totaled 68.57 tons. Some



Getting into and out of the fighting compartment was done via two hatches in the roof, plus a big round opening in the rear body plate. The vehicle shown here is a command tank, recognizable by the antenna mount at the upper right of the rear body plate.

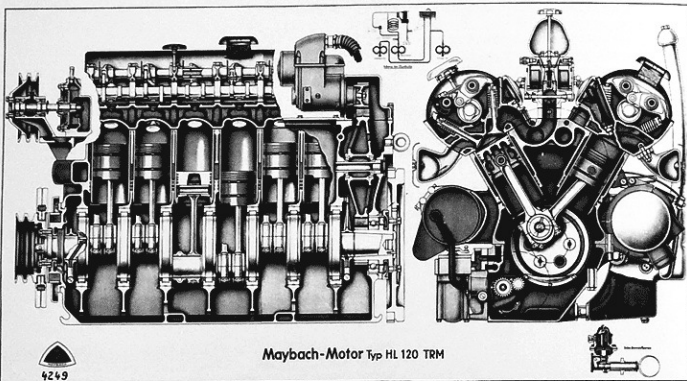
engineers feared that the running gear, built for a 45-ton battle tank, could not carry the additional weight. The maximum carrying capacity of the engineering equipment at this point was 55 tons.

Thus, the front armor was lightened again. The planned front thickness of the armor was canceled. The added 30 mm plate on the lower bow was dropped. The final data on the "8.8 cm Panzerjägerkanone 43/2 L/71 auf Tiger (P) Fahrgestell" called for a top speed of 30 km/h and a sustained road speed of 20 km/h. Off the road, the Panzerjäger was supposed to be able to move at 8 to 10 km/h. Two Maybach HL 120 TRM engines with sustained power of 265 HP each at 2600 rpm replaced the original air-cooled gasoline engines conceived by Porsche. Each of these motors was connected directly to a Siemens-Schuckert 500 Volt-Ampere generator. It passed its generated electricity to two 230-kilowatt electric motors, which directly affected the rear-mounted

intermediate gears. Although this power was quite sufficient for operating the vehicle, the power loss was enormous. For 150 kilometers on the road or 90 km off the road, the vehicle needed up to 950 liters of gasoline.

The overall length of the vehicle was stated as 8140 mm (6970 mm minus the cannon), the width as 3380 mm, and the height at 2970 mm. The ground clearance was 500 mm. Two 640 mm tracks, with a ground length of 4120 mm held the total weight of 68.5 tons. The resulting ground pressure of 1.23 kg/cm<sup>2</sup> was reduced at a sinking depth of 200 mm to a still acceptable 1.08 kg/cm<sup>2</sup>.

For the 8.8 cm Panzerjägerkanone 43/2 only 36 shells were carried in fixed racks. Another 14 rounds could be carried in packing. In action, though, the crew packed as much ammunition as possible into the vehicle. In this way, up to 90 rounds could be stowed in the vehicle.

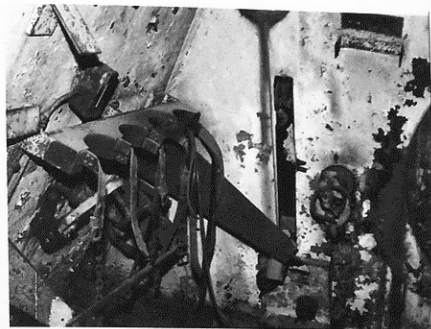


Two of these Maybach HL 120 TRM gasoline engines replaced the originally planned air-cooled 10-cylinder gasoline motors, made by the Porsche firm, in series production.

Interior photos of the Ferdinand, chassis no. 150040.



Racks for six shells on the right side of the fighting compartment.



Nine shells were carried in racks at the right rear.



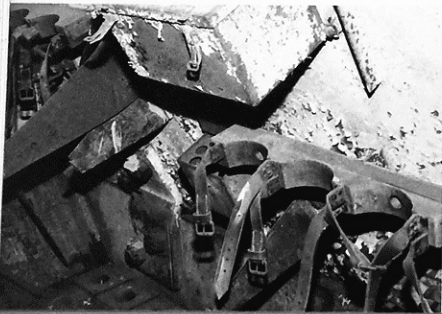
Nine racks for ammunition were located at the right rear. Part of the rack is missing.



The loader's entry-exit hatch was at the left rear of the roof. Behind it, in the far corner of the fighting compartment, was the periscope mount.



Nine more shells were stowed at the left rear. A machine-pistol port can be seen on the rear wall.



The left body side, with ammunition racks (the shells stood on end in the racks with the igniters downward. A rack for nine more shells can be seen at the far left.

The secondary armament consisted of one MG 34 (with 600 rounds) carried loose, and two MP 38/40 (with 384 rounds). The crew could fire these automatic weapons either through the open ports, or through pistol openings on each side of the body—or the two openings on the rear wall.

The six-man crew was made up of the commander, gunner, two loaders, the driver, and the radioman. Over the driver's and radioman's seats, each had a rectangular entry-exit hatch provided. Over the commander's seat was a two-part rectangular hatch cover, with a two-part hatch over the aiming gunner's seat, and the loading



On April 23, 1943, the last Ferdinand chassis (no. 150091) left the assembly hall in St. Valentin.

gunners climbed in and out through a big hatch in the rear wall of the body. The optics were very limited. The driver had three periscopes by the driver's hatch to use. The radioman could see through a vision slit to his right side, while the gunner aimed through his SFZF 1a, whose head rose above the roof. In order to be able to see through the SF 14 Z shear periscope the commander

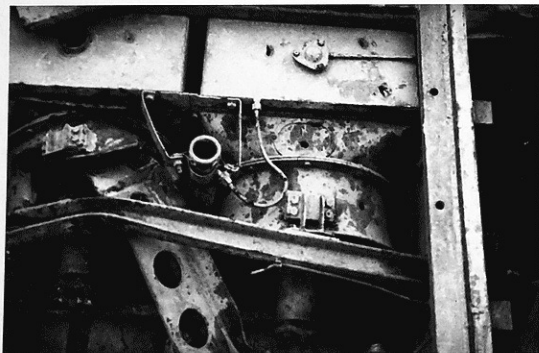
had to open his hatch. The loading gunner could use his turning periscope in the back part of the roof.

The commander, radioman, and driver communicated via the on-board speaker set, and via FuG 5 and FuG 2 radios.

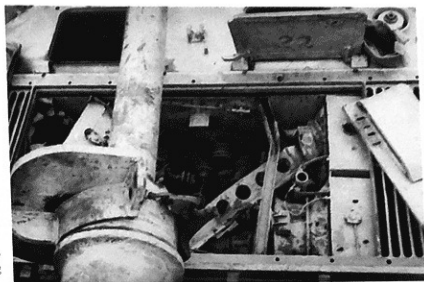
The command versions of the Ferdinand, given to company chiefs and the *Abteilung* staff, also carried an FuG 8 with a larger range. Its antenna was mounted on the rear body plate.



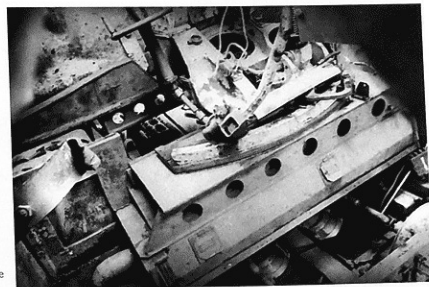
A look at the right side of the fighting compartment. Floor plates for the fighting compartment and the engine cover are missing.



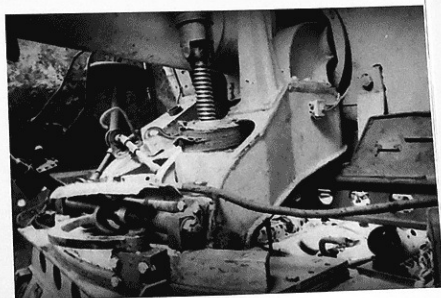
Details of the damaged cooling system space.



This Ferdinand, chassis no. 150022, was destroyed and captured by the Red Army. A look into the generator room with the cooling system before the fighting compartment.



Part of the fighting compartment. The flooring is missing. One of the two small ventilators is visible; it cooled the electric motors.



A look at the weapon mount from the right side.

## Development of the Designations of the Ferdinand

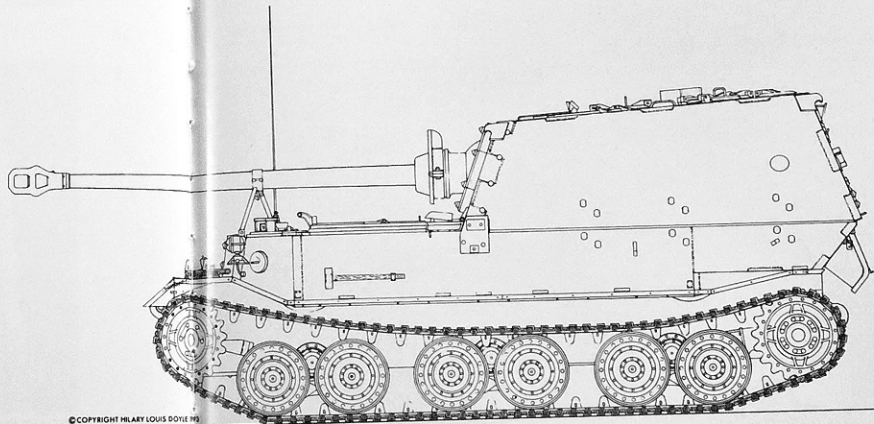
### Sturmgeschütz mit der 8.8 cm lang

Führer's conference	11/22/1942
Stu.Gesch. 8.8 cm K. (auf <i>Fahrgestell</i> Tiger P)	
"overview of the Army's Armament State," Chef H.Rüst u. BdE/	
Stab Rüst III	12/15/1942
<b>Tiger-Sturmgeschütz</b> Nibelungenwerk	12/29/1942
<b>Sturmgeschütz auf Fahrgestell</b> Porsche Tiger mit der langen 8.8 (Ferdinand)	
Führer's conference	2/6/1943
<b>Ferdinand für 8.8 cm Sru.G.43/1 65 to auf Fahrgestell</b>	
<b>Tiger P 1</b>	
Wa Prüf disguised names	2/22/1943
<b>Ferdinand (Stuk43/1 auf Tiger)</b> Wa Prüf 6	3/2/1943
Stu.Gesch. 8.8 cm K. (auf <i>Fahrgestell</i> Tiger P) (Ferdinand)	
"Overview" (as above)	3/15/1943 to 8/15/1943

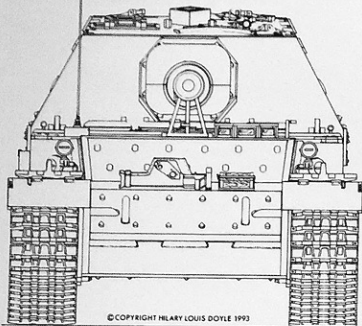
<i>Panzerjäger</i> "Tiger" (P) (Sd.Kfz.184)	
K.St.N. 1148c and 1155	3/31/1943
<b>8.8 cm Pz.Jäg.43/2 L/71 Tiger P</b> Wa Prüf	5/1/1943
<b>Panzerjäger Tiger (P)</b> D656/2	5/1/1943
<b>Ferdinand</b> s.H.Pz.Jg. Abt.653	5/3/1943 to 4/1/1944
<b>Ferdinand</b> s/H.Pz.Jg. Abt.654	5/5/1943 to 5/10/1944
<b>"Tiger(P)" Sd.Kfz.184</b> s.H.Pz.Jg.Abt.653	5/7 and 5/19/1943
<b>Pz.Jäger Ferdinand</b> Krupp Order for parts	5/13/1943
<b>Ferdinand</b> s.H.Pz.Jg. Abt.656	July to December 1943
Stu.Gesch.8.8cm Pak43 (auf <i>Fahrgestell</i> Tiger P) (Ferdinand)	
"Overview" (as above)	9/15/1943
<i>Panzerjäger</i> "Tiger P" für 8.8 cm Pak43/2 (Sf.) (Sd.Kfz.184)	
<i>Panzerjäger</i> "Tiger" für 8.8 cm Pak43/1 (Sf.) (Sd.Kfz.185)	
O.K.H. (Chef H. Rüst u. BdE) In 6	October 1943
8.8 cm Stu.Gesch. m. 8.8 cm Pak43 (auf <i>Fahrgestell</i> Tiger P) (Ferdinand)	
"Overview" (as above)	11/15/1943

<b>Ferdinand</b> Gen.Insp.d.Pz.Tr.Akten	11/28/1943 to 4/24/1944	s.Pz.Jäger VI (P) 8.8 cm Pak43/2 L/71 " <i>Elefant</i> " (früher Ferdinand)	5/1/1944
Evocative name " <i>Elefant</i> " für 8.8 cm <b>Sturmgeschütz Porsche</b>	2/27/1944	Wa Prüf 6	
GenStdH/Org.Abt.	5/1/1944 to 12/??/1943?	<b>Panzerjäger Tiger (P)</b> mit 8.8 cm Pak43/2 (Sd.Kfz.184)	3/15/1944 to 11/15/1944
<i>Elefant</i> s.Pz.Jg.Abt.653		"Overview" (as above)	3/15/1944 to 11/15/1944
		<b>Elefant</b> (8.8 cm Stu.Gesch. mit 8.8 cm Pak43/2 (Sd.Kfz.184)	3/15/1944 to 11/15/1944
		"Overview" (as above)	3/15/1944 to 11/15/1944

Ferdinand  
Original delivery 1943 (Added armor by barrel before shield added later  
(May 1943)—storage space on left side, also for 50 mm diameter towrope.)

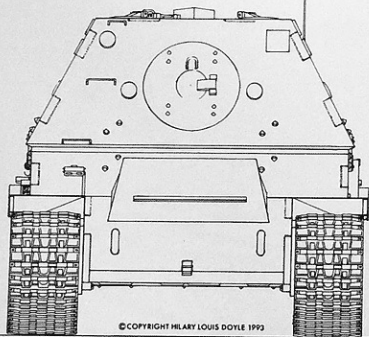


Front view: (Vehicle without radioman's machine gun.)



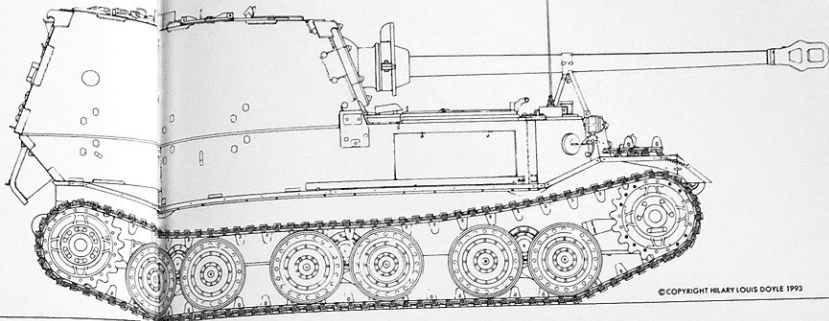
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Rear view: (All bodies were prepared to hold an added antenna.)



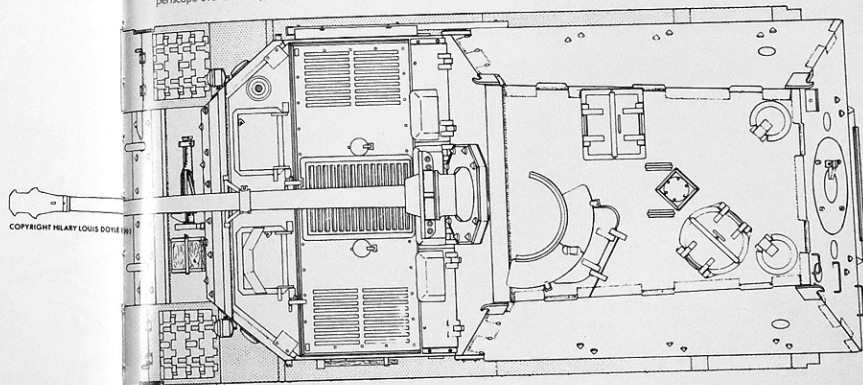
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Right side of vehicle: (Toolbox and spare antennas—containers including a 50 mm diameter towrope.)



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Top view: (Original ventilation gratings over the radiators—rectangular divided roof hatch for commander—small round lid on rear part of roof for periscope over the MP port.)



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## Production

In November 1942, the Nibelungenwerk received a contract to produce 90 ready-to-drive series chassis (chassis no. 150011 to 150100). The planning called for the building of 15 chassis in February, 35 in March, and 40 in April. The chassis were to be sent to the Alkett firm, which mounted the bodies. Alkett had developed the new body, and was at that time the only firm with sufficient experience in building assault guns.

The original Tiger (P) hulls had to be changed completely at the Eisenwerk Oberdonau. To balance the overhang of the gun

barrel far beyond the hull the body was moved backward. Therefore, the two drive motors with the electric generators had to be moved forward behind the driver's seat. The Eisenwerke Oberdonau made these changes to the 90 remaining Tiger (P) hulls in the following quantities: 15 in January, 26 in February, 37 in March, and 12 in April 1943.

During the Führer's conference on February 6, 1943, the state of the "Assault Gun on Porsche-Tiger Chassis" project was also discussed. During this meeting the name "Ferdinand" was officially acknowledged in recognition of the creative achievement of Ferdinand Porsche.



The finished chassis receive their bodies.



While some vehicles are almost finished, the majority of the chassis await their bodies.

Supply shortages of running gear parts and insufficient driving tests delayed production considerably. In view of the war situation, though, all driving tests should be concluded as soon as possible, despite all difficulties, and the production should be taken up as quickly as possible. In order to support this order, Reich Minister

Speer gave the Ferdinand production contract to the Nibelungenwerke. This smart decision had several advantages. The Nibelungenwerke already finished the chassis. They had enough space and heavy cranes for the assembly. Besides, the assembly could save the considerable time and shipping effort of transporting the chassis to Berlin.



This picture from above shows the rectangular hatch for the commander. The rear lid had to be opened all the way when the commander wanted to use his shear scope. The nearest vehicle affords a rare view of details of weapon installation.



Almost finished Ferdinands. The covering of the driver's space must be attached. Chassis no. 150027 is first in line at right.



The cranes at the Nibelungenwerk were made to lift heavy loads. Thus any vehicles could be shifted without great effort and noise.

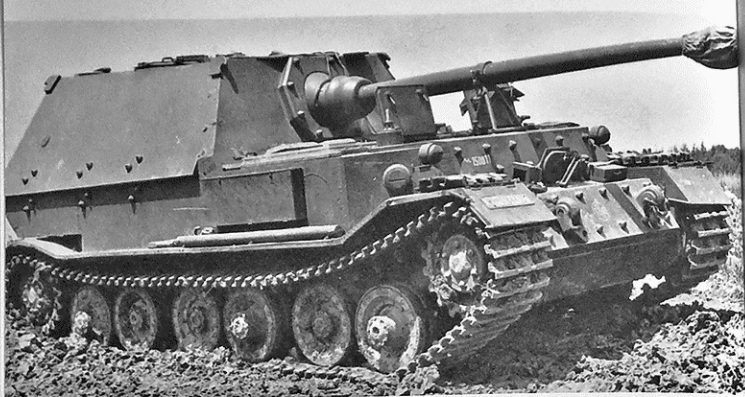


Ferdinand (chassis no. 150096) is seen after being accepted by inspectors of the Army Weapons Office. The word "Fähig" ("ready to drive") has been written on the body plate with chalk.



The last Ferdinand (chassis no. 150100) was, as the pictures show, finished on May 8, 1943, four days before the planned delivery date of May 12, 1943. In a brief celebration, it was decorated by the workers in their style.





Ferdinand (chassis no. 150011) was turned over to WaPrüf 6 for testing. For test drives, even armored full-track vehicles were given police identity numbers (WH O in red).



Back at the Nibelungenwerk, other complete Ferdinands roll from the assembly line.

In return, Alkett could now carry out the requested preparation to build the "Sturmgeschütz auf Panzerwagen III-Fahrgestell" without interruption.

The Nibelungenwerk began to finish hulls in February, and in March 1943 it received the first new bodies from Krupp of Essen. Under the urgent handicap of delivering action-ready vehicles in time for the planned summer offensive, the last hull in driveable condition rolled off the assembly line on 23 April, while the last finished Ferdinand

*Jagdpanther* left the Nibelungen works on schedule on May 12, 1943. The vehicles were delivered with unprotected ball mantlets for the 8.8 cm cannon. In order to avoid shot damage on this exposed place, Krupp received a contract on May 6, 1943, to produce 90 mount armorings. Krupp worked fast on this order, and sent the additional armor to the troops by rail on May 13, 1943, before they went into service.

Inspectors from the Army Ordnance Office took over 30 Ferdinands in April 1943, and the other 60 in May. One Ferdinand went to the Waffen-Prüfamt (WaPrüf) for testing; the rest were sent on to the Heereszeugamt (HZA). There they were supplied with ammunition, tools, and spare parts; the radios were also installed, and the vehicles desensitized. On 29 April Ferdinands went to the troops, followed by 56 in May, and the last four at the beginning of June 1943.

On the basis of an earlier command from the Army High command (OKH) of December 26, 1942, the 90 Ferdinands under the control of the General of the Artillery were to go to the three Heavy Assault Gun *Abteilungen* 190, 197, and 600. The old assault-gun organizational slates were changed in order to supply each *Abteilung* with 30 Ferdinands, according to war strength advisories:

<i>Abteilung</i> Staff:	K.St.N. 416b of 1/31/1943
Staff Battery:	K.St.N. 588b of 1/31/1943
3 Heavy Batteries (Tiger):	K.St.N. 446b of 1/31/1943
Workshop Battery (mot)	K.St.B. 598 of 1/31/1943

Even before these orders could be carried out, *Generaloberst* Heinz Guderian was called by the Inspector-General of the Panzer Troops. He wrote in his book, "Memoirs of a Soldier":

"...On March 19, 1943, I was in Rügenwalde for a showing of the 'Ferdinand' tank before Hitler. It was a Tiger design of Professor Porsche, with electric drive and an 8.8 cm Kanone L/71 in a fixed turret, in the manner of the assault guns. Since it was built only once, and then in a series of 90 examples, I also had to use it, even though, from a tactical standpoint, I could not share Hitler's enthusiasm over this creation of his favorite Porsche. With the 90 'Ferdinand' Tigers, a Panzer regiment of two *Abteilungen* with 45 tanks each was set up."



Loaded on SSyms railroad cars of the German Reichsbahn, the Ferdinands first went to the Heereszeugamt, where ammunition, tools, and spare parts were added. The radios were built in and the vehicles desensitized. The last Ferdinands to be ready for action reached the troops in June 1943.



The Ferdinands left the factory with unprotected ball mantlets. Krupp of Essen sent the additional armor to the troops by rail on May 13, 1943. The troops mounted them themselves before going into action.



The first unit to receive the renamed heavy Panzerjäger "Ferdinand" was Abteilung 653. This picture shows Ferdinands of the 1/656 (s.PzJg.Abt.653) at the training camp of Bruck/Leitha in May 1943.

The "Service Instruction for the Inspector-General of the Panzer Troops" of February 28, 1943, noted: "The designation 'Panzer Troops' in this service instruction includes 'Panzer Troops, Panzer-Grenadiers and Motorized Infantry, Panzer Reconnaissance Troops, and Heavy Assault Gun units.'"

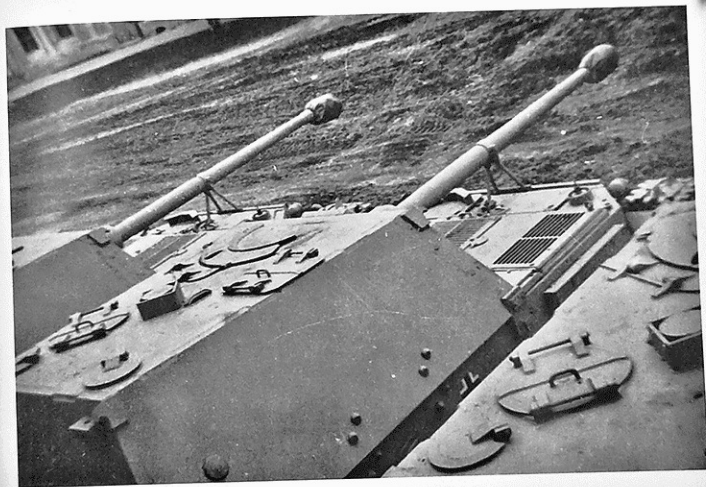
Guderian acted fast: He renamed the Heavy Assault Gun *Abteilungen* 190 and 600 as Light Assault Gun *Abteilungen* and had them supplied with assault guns "on *Panzerkampfwagen* III chassis." He also had the Heavy Assault Gun *Abteilung* renamed as Heavy *Panzerjäger Abteilung* 653 (Major Steinwachs commanding), and supplied with *Panzerjäger* "Tiger" (P) (Sd.Kfz. 184). As the second unit that should receive the Ferdinands, Guderian foresaw *Panzerjäger Abteilung* 654 under Major Noak. On March 2, 1943, it received the command to undergo refreshing and new organization as Heavy *Panzerjäger Abteilung* 654 with Staff, Staff Company, and three Companies. On May 22, 1943, effective immediately, the Staff *Panzerregiment* 35 was renamed *Panzerjäger-Regimentsstab* 656. The Heavy *Panzerjäger Abteilungen* 653 and 654 and the *Sturmpanzer Abteilung* 216 were subordinated to this Regimental Staff. On June 8, 1943, the Heavy *Panzerjäger Abteilung* 654 received the new designation of II.

*Abteilung, Panzerjäger Regiment* 656. Its three companies were renamed the 5<sup>th</sup>, 6<sup>th</sup>, and 7<sup>th</sup> Companies. War strength records (K.St.N.) established the organization of these units. The K.St.N. 1148c of 3/31/1943 for the "*Panzerjäger Company Tiger* (P) (8.8 cm Pak 43)" assigned the Company Troop two *Panzerjäger Tiger* (P) (Sd.Kfz. 184), and gave the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Platoons each four *Panzerjäger Tiger* (P). The staff company of a *Panzerjäger Abteilung Tiger* (P) was, in agreement with K.St.N. 1155 of 3/31/1943, to receive three *Panzerjäger Tiger* (P) per platoon.

The tactical numbers of the "Ferdinands" represented the usual standard. For example, the two Company Troop vehicles of the 5<sup>th</sup> Company were numbered 501 and 502, while the "Ferdinands" of the 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> Platoons received numbers 511 to 514, 521 to 524, and 531 to 534.

On May 3, 1943, the Heavy *Panzerjäger Abteilung* reported as follows:

The *Abteilung* is remaining until further developments in Bruck/Leitha, and continuing training and organization. Sending of the Ferdinand is being changed, since only the first rate—that is, 45 Ferdinands—are ordered sent to *Panzerjäger Abteilung* 654



Establishment of Heavy *Panzerjäger Abteilung* 653.



The second unit that was supposed to receive Ferdinands was Panzerjäger Abteilung 654. It was set up in Rouen.

at Rouen. The second rate, likewise, of 45 Ferdinands, is to be sent directly by personnel of *Panzerjäger Abteilung* 653 to the troop training camp at Bruck/Leitha. The transfer personnel of the 653<sup>rd</sup>, sent on the march to Rouen, will return to Bruck/Leitha after turning over the Ferdinands.

The report also reported the vehicle strength of the *Abteilung*:

	on 5/7/1943		on 5/19/1943	
	Req.	Here	Req.	Here
<i>Krankenpanzerwagen</i>	1	0	1	0
Sd.Kfz. 251/8				
Sfl.-Zgkw 8 t (Sd.Kfz. 7/1)	6	0	6	2
Zgkw 18 t (Sd./Kfz. 9)	15	15	15	15
Zgkw 35 t (Sd.Kfz.20)*	2	0	2	0
Tiger (P) (Sd.Kfz. 184)	45	8	45	40

The s.Pz.Jg.Abt. 654 in Rouen under the command of the 81<sup>st</sup> Army Corps reported:

\* This vehicle was not introduced, but replaced by *Bergepanzer*.

May 5, 1943: 5 Ferdinands arrived in  
 May 6, 1943: 18 more Ferdinands arrived  
 May 8, 1943: 35 Ferdinands ready for action  
 May 9, 1943: 40 Ferdinands ready for action  
 May 10, 1943: 45 Ferdinands arrived in all

The s.Pz.Jg.Abt. 653 and 654, after a short training time, moved by train to the eastern front beginning on June 9, 1943. They were assigned to Army Group Center, and took part there in the great offensive on the Kursker Bogen. Just before the beginning of Operation "Citadel" on July 4, 1943, Heavy *Panzerjäger* Regiment 656 reported its total strength as follows:

s.Pz.Jz.Rgt. 656: 3 Pz. II, 2 Pz. III 5 cm-L/42,  
 3 Pz.Bef.Wg. 5 cm-L/42  
 s.Pz.Jg.Abt.653: 5 Pz.III 5 cm-L/42,  
 1 Pz.Bef.Wg. 5 cm-L/42, 45 Ferdinand  
 s.Pz.Jg.Abt.654: 5 Pz.III 5 cm-L/42,  
 1 Pz.Bef.Wg. 5 cm-L/42, 44 Ferdinand



Practice with Ferdinands was continued in May and June 1943 at Neusiedl am See.



Beginning on June 9, 1943, Abteilungen 653 and 654 were moved by rail to the eastern front. This picture shows a loaded Ferdinand of the 3<sup>rd</sup> Company.

Sturm-Pz.Abt.216: 3 Bef.Stu.Pz. IV, 42 Stu.Pz. IV  
 Pz.FKL Kp. 313: 7 Pz.III 5 cm-L/60, 3 Pz.III 7.5 cm-  
 L/24, 36 B IV\*\*\*  
 Pz.FKL Kp.314: 10 StuG III, 36 B IV  
 (FKL = *Funklenk*: radio link)

Other armored vehicles that moved up during the offensive were reported by O.Qu.Kraft AOK 9 as follows:

7/25-11/1943 Arrived: 6 Mun.Pz. auf Fgst. Pz.IV for Sturm  
 Pz. Abt. 216  
 3 Mun.Pz. auf Fgst.Pz.III for  
 Pz.Jg.Abt.653  
 Assigned: 10 *Sturmpanzer* IV for Sturm  
 Pz. Abt. 216  
 7/12-18/1943 Arrived: 10 *Sturmpanzer* IV for Sturm  
 Pz. Abt. 216  
 Assigned: 1 Chassis for Ferdinand for  
 Pz.Jg.Abt. 653  
 1 Chassis for Ferdinand for  
 Pz.Jg.Abt. 654  
 7/19-27/1943 Assigned: 30 *Sprengstoffträger* B IV for  
 Pz.Rgt. 656

During Operation "Citadel" the troop units reported their active strengths on the eve of every combat day: On 7 July, 37 Ferdinands; on 8 July, 26; on 9 July, 13; on 10 July, 24, on 11 July, 12; on 12 July, 24; on 13 July, 24; and on 14 July, 13. This shows the tremendous achievement of the repair units, which worked tirelessly to make the *Jagdpanzer* ready to fight again and again. From July 5 to 14, 1943, 19 Ferdinands became total losses. Most of them fell to direct hits from heavy artillery on the motor gratings. Four had short circuits in the electric power system that resulted in fire.

The Russian counteroffensive, which began on July 12, 1943, forced the German troops to withdraw to the "Hagen Line." In the process, 20 more Ferdinands were lost by August 1, 1943. Most of these vehicles were blown up by their own crews so they would not fall into Russian hands in usable condition. With 39 of their own losses (Ferdinands), the s.Pz.Jg.Rgt. 656 reported a total of

502 enemy tanks out of action, plus 20 Pak and about 100 artillery guns. The s.Pz.Jg.Rgt. 656 received the order to withdraw from the front line to a place of rest in Dniepropetrovsk, and began repairing 50 Ferdinands. The Regiment reported on August 26, 1943:

"The Regiment is at this time with Ferdinand *Abteilung* 653 and *Sturmpanzer Abteilung* 216 in transit to Dniepropetrovsk for repairs. For the repairing and refreshing of both *Abteilungen*, the firms of Porsche, Alkett, and Siemens are extensively involved through the Inspector-General. Hereby the newest improvements will be installed. The 2<sup>nd</sup> Ferdinand *Abteilung* 654 is moved to the Orleans area as a personnel unit (without equipment) for new formation with Panther *Panzerjäger*.

The unit, which had drawn back to Dniepropetrovsk until September 1, 1943, repaired the Ferdinands there, and was subordinated to the command of z.Pz.Jg.Abt. 653. 15 Ferdinands were quickly repaired and turned over to the s.Pz.Jg.Abt.653 on the front. The readiness for action of s.Pz.Jg.Abt. 653 with Ferdinands in the summer and autumn of 1943 can be portrayed as follows:

Date	Total	Ready	in Repair
August 1	50	26	24
August 20	50	12	38
September 1	50	10	40
September 18	50	8	42
September 30	49	20	29
November 1	48	9	39
November 30	42	7	35
December 3	42	4	38

In addition to the Ferdinands, there were also five *Munitionspanzer* III, two *Bergpanther*, and three *Berge-Ferdinand* on hand on November 1, 1943. These three recovery Ferdinands were finished in August 1943 and sent to the unit the next month.

After four months of action, the *Abteilung* reported on 5 November the shooting down and destruction of 582 tanks, 344 tank destroyers, 133 guns, 103 *Panzerbüchsen*, three aircraft, three armored scout cars, and three assault guns.

\*\*\* *Sprengstoffträger* B IV (Sd.Kfz.301)



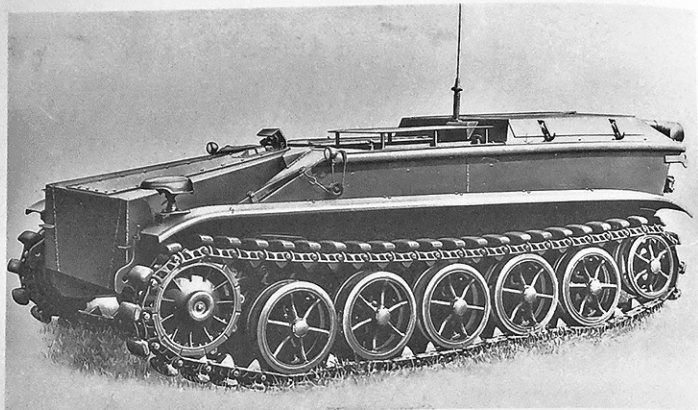
s.Pz.Jg.Abt. 653 in the assembly area before Operation Citadel, the battle at the Kursker Bogen. The Panzer Company (FKL) 314 (10 *Sturmgeschütz* III and 36 B IV charge layers were assigned to the *Abteilung* for support).



Ferdinand 134 of the s.Pz.Jg.Abt. 653. Gun Leader Ulfz. Reinhold Schlabs, in the assembly area at Glasunovka on July 3-4, 1943.

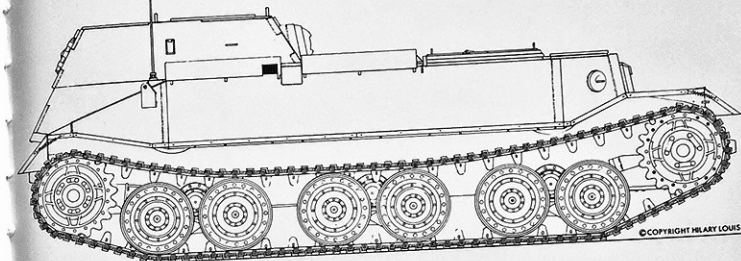
On November 29, 1943, the *Abteilung* received the order to withdraw to the west, take a resting position there, and overhaul their Ferdinands. All of these vehicles had meanwhile covered 2000 km each. During the preceding weeks, four Ferdinands had burned

out without enemy action. But the Ferdinands were too valuable to be lost in this way. The high combat value of this weapon was shown anew when, on November 25, 1943, two Ferdinands shot down a total of 54 enemy tanks.



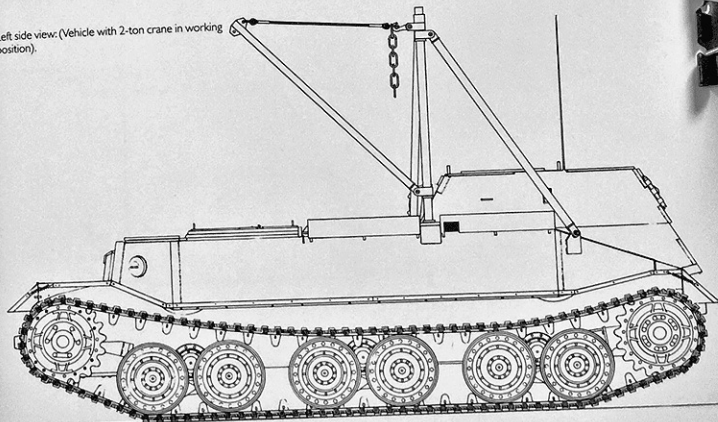
Heavy Chargelayer (Sd.Kfz. 301), Version B, Type B IV.

Bergetiger (P)  
Right side view: (original tracks, unlike Ferdinand, used in opposite direction—hot air outlet at bottom of rear end of fighting compartment—exhaust openings behind crane attachment).

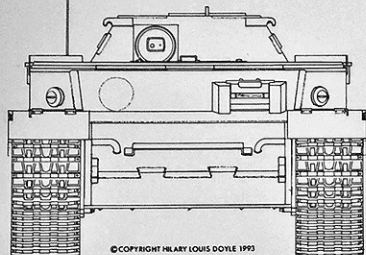


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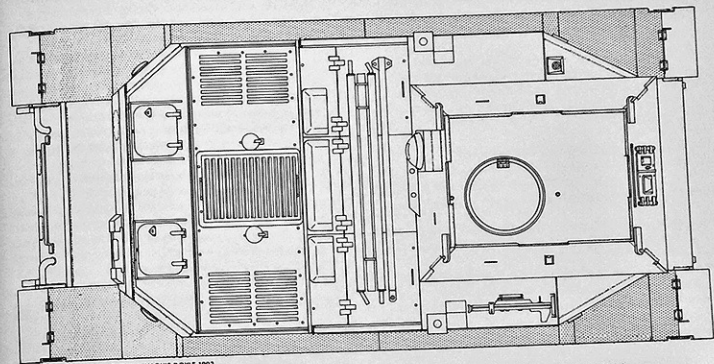
Left side view: (Vehicle with 2-ton crane in working position).



Front view: (Original tiger (P) front—radioman's MG with ball mantlet removed—no added armor).



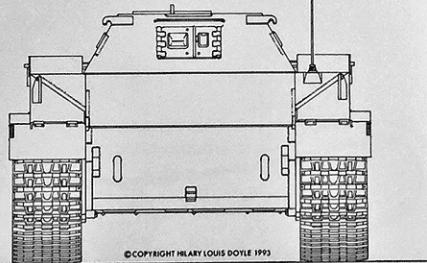
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Top view: (Fighting compartment surrounded by containers for tools—crane dismantled and stowed in the vehicle).

Rear view: (Doubled entry and exit hatches in fighting compartment, taken over from Panzer IV—tool chests on both sides of fighting compartment—additional armored lengthenings on the hull, front, and back, to be able to push damaged vehicles).



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## Experience Reports

The following original reports from 1943 show the exact situation, tactical action, and technical problems of the Ferdinand tank destroyers in the east:

**Report No. 1**  
**THE INSPECTOR-GENERAL** Berlin, July 17, 1943  
**OF THE PANZER TROOPS**  
Chefgruppe No. 80/43 g/Kdos.  
To the Chief of the Army General Staff  
Herr General der Inf. Zeitler

Enclosed I am sending five copies of reports about action experiences of Panzer Regiment (Panther) von *Lauchert* and Heavy Panzerjäger Regiment 656 (Ferdinand and *Sturmpanzer*), which I gathered on my trip to the front.

I request that the reports be brought to the responsible H.Gr.—A.O.K.—A.K. and Division.

Guderian

**Enclosure no. 2 to Schrb. Gen.Insp.d.Pz.Tr.**  
Chefgr. No. 80/433 g.Kdos.  
**Action Experiences with the s.Pz.Jäg.Rgt.656 (Tiger-Porsche and Sturmpanzer)**

**I. Action**  
The Heavy *Panzerjäger* Regiment 656—in action within the 9<sup>th</sup> Army—was joined with the 86<sup>th</sup> Infantry Division for the attack.

To create mine lanes in the suspected minefields, they were subordinated to Regiment 2 Pz.Kp. (FKL).

The very heavy enemy artillery fire (on the first day, 100 heavy and 172 light guns, 386 salvo guns, and countless grenade launchers appeared) shattered the infantry attack. The Ferdinand and *Sturmpanzer* could not carry the attack into the depths of the defenders fast enough, since the infantry was stopped, but stood in the terrain and concentrated the artillery fire on themselves. The enemy artillery always found time to regroup in positions to the rear, and to strengthen themselves. The lacking equipping of the armored vehicles with machine guns took its revenge. The losses were correspondingly high.

### Total Losses:

19 Ferdinand (mainly to direct artillery hits on the gratings, four without being fired on, through short circuits with ensuing fire)

10 *Sturmpanzer* (mainly exploded by crews after mine or artillery hits)

### Timewise Losses to Mines:

40 Ferdinand as of 7/11, 20 repaired

17 *Sturmpanzer* as of 7/11, 9 repaired

For the most part, there were only a few track links and, in part, also road wheels and swinging arms damaged.

These high losses to mines occurred in spite of 2 Pz.Kp. (FKL) being in action.

The Pz.Kp. (FKL) were not effective under heavy artillery fire. Part of the leading and steering tanks were put out of action while in the assembly position. Every company was able to explode two lanes. The significance of the mine lanes was not possible, because of the heavy artillery fire. The lanes were therefore unknown to the crews of the Ferdinands. The further development of the Pz.Kp. (FKL) and the building of minesweepers are urged.

Despite the heavy losses, the Ferdinands and *Sturmpanzer* always reached their ordered positions.

The *Sturmpanzer Abteilung* has also penetrated the third position of the Russians in a bold advance five kilometers ahead of the infantry. This success had to be given up, since no armored reserves were sent in from the depths, and the infantry no longer had the power to follow.



A Ferdinand of the 1/653 during Citadel in July 1943.

This fact makes it clear that the decisive success against the enemy in such a deeply structured main battlefield, and with strong artillery superiority, can only be gained in cooperation with the infantry.

By linking the Heavy *Panzerjäger* Regiment with a Panzer Division, and deeper structuring of the Panzer attack in several meetings of Panzer and riflemen on S.P.W. for quick exploitation of the success, the penetration doubtless would have succeeded with lighter losses.

### Individual Experiences on the Action of Heavy Panzerjäger Regiment 656

#### 1. Weapons:

The cannon has proved itself fully. A disadvantage has been the lack of a machine gun. To remove this disadvantage, 12 Panzer III tanks were assigned to the Ferdinands for close-range defense and fighting against living targets.

#### 2. Armor:

In no case has the front armor been penetrated. The side armor has been broken in some cases by 7.62 cm guns at close range. Engine covers and the roof of the fighting compartment have been penetrated by artillery hits.

Recommendation: Cover the gratings with a roof of armor plates (15-20 mm), and protect the open sides of these roofs with wire gratings. This armor roof both protects the engine compartment from penetration by rain, and prevents the damage to electric lines from short circuits.

#### 3. Radio:

Radio operation was very much disturbed by electric problems. This condition worsens steadily.

#### 4. Sturmpanzer:

This weapon has proved itself extraordinarily. The lack of a machine gun has been a disadvantage. Either the cannon must be fired at individual living targets, or they must not be fought with.

#### 5. Tank Aprons:

Skirting plates for Panzer III, IV, and assault guns were declined by the troops before the operation, since they were soon stripped off in the terrain because of poor attachment.

The sure protection against *Panzerbüchse* hits, though, has clearly shown their worth after the operation began. The troops are now very satisfied. The hanging of the skirting plates has been improved temporarily.

### Report no. 2

Uffz. Boehm East, July 19, 1943  
Field post no. 25056 F

Right Honorable General Hartmann!

I take the liberty of reporting briefly to you on the action of our "Ferd."

On the first day of action, bunkers, infantry, artillery, and gun positions were fought successfully.

Our guns were under drumfire for three hours, and proved their imperviousness to fire. Only on the evening of the first day were a few armored vehicles shot down; the others fled. The crews of the artillery and antitank guns fled before our fire after repeated ineffective fire.

Along with many batteries, antitank guns, and bunkers, 120 tanks were shot down by our *Abteilung* in the first action. In the first days our losses numbered 60 v.H., mostly from mines; everything was mined far and wide, and the mine dogs were insufficient. Also, one single minefield was unfortunately driven onto! We had plenty to do, but did it nevertheless. The Russians Inspector-General Guderian was also with us. They have improved and increased their weapons very much! They have artillery here as never before, and fire at individual soldiers! The antitank guns are also very numerous, and the performance of their *Panzerbüchse* is very good (until the end of firing, I counted 55 times at one Ferdinand).

In the first action we had six total losses; one of them, in a resting position, took a stray shot in the open driver's hatch, one dead, three wounded—burned out, one burned from unknown causes (suspected exhaust leak), one burned out (generator) when it had to move through a swamp, and three had to be exploded after being crippled by mines in an enemy counterattack. One had back luck; it was on a roadway when a Panzer III tank on the other side blew up from a direct hit and damaged the body of our Ferdinand in front, gun barrel ruined, aiming device and also grating. In the other *Abteilung*, a heavy shell penetrated the roof.

In the second action in defense east of O... we had better success, with only two total losses (one blown up). One gun shot down 22 tanks at once, the general number of kills was also quite high, and the Ferdinands contributed significantly to the defense, as before in the breakthrough. One gun leader shot down seven of nine approaching American tanks.

The cannon is very good; every tank, even KW II, and the approaching Americans are shot down with one shot or two. Only loading was hindered by explosive shells, as the cartridges got stuck, which was sometimes very regrettable. One gun barrel was hit, one already had a crack, one a bulge, and were exchanged with barrels from breakdowns; parts were also salvaged, since all breakdowns have been brought back by us to date. Now they are making a protective plate over the grating, which I already suggested, since the Russians fire phosphorus shells and the aircraft drop them.

The "Ferdinand" has proven itself. It was decisive here, and one cannot get anywhere against the enemies today without such a weapon against the masses of enemy tanks; assault guns are insufficient. The electric drive has proven itself fully, the drivers and crews were pleasantly surprised. Motor and electric failures were few. The motor is known to be weak for the tonnage, tracks somewhat narrow. If it is improved after the action, it would be "great!"

In one Ferdinand, the body of a Panzer IV was penetrated—by accident—gun cut in two, an antitank gun destroyed a leading wheel. One hull was penetrated below by a T34 at 400 meters (seven T34 encircled it), but the full shell fell in without damage. One Ferdinand stood sentry at night, was lamed and blinded by close-combat weapons, and finally plunged into a ditch. For such purposes it lacks a machine gun in front. The side ports are too small, one does not see the foresight.

A big mistake of ours is that the enemy guns and tanks are left standing, instead of being brought to safety or destroyed by a recovery or destruction troop. For example, when 45 tanks were in no man's land in the evening, some 20 are missing in the morning; the Russians have taken them with their towing tractors at night. The tanks that were shot down last summer

and left there came back into their hands during the winter! In several weeks, perhaps 50 v.H. are running again, and we ask ourselves where so many come from, that costs work and blood. For example, in our first action, shot-down Russian tanks were left standing, also guns and antitank guns, sometimes intact and with ammunition, the mines lay in layers. The front had to be taken again, and everything came back into their hands. It was the same here too; the American tanks were all left standing. We should have thought of taking the things as raw material; the new weapons can be reused as raw material (which is often hard for us to get), and good raw material for the making of new heavy weapons, a thousand tons could be brought in like that, and the enemy would have lost the chance to cover his losses by repairs or scavenging in a short time. There are already scrap collecting stations, but it could be carried on more intensively; empty trucks are sometimes at stations for a long time; they could meanwhile have been loaded. As I heard, all broken-down Ferdinands should be recovered by our *Abteilung*. They arrived rather late and are too few; whenever we needed more of them, we would have made progress; we hope the new type is soon ready for production. I have not been able to find a place.

Otherwise I am doing well, and I also hope the General is healthy again.

(signed) Uffz. Boehm



Side view of a Ferdinand of the 1/653<sup>rd</sup> during Citadel in July 1943.



Gun 121 of the same company is being refueled during a pause in the action. The two Maybach motors had a great thirst.

Report no. 3  
Panzerjäger Regiment 656    Regimental Command Post,  
July 24, 1943  
Commander  
No. 250/43 geh.

To  
Pz.A.O.K.2  
Situation of Panzerjäger Regiment 656

On account of the tactical situation, the Regiment has been in action without interruption since 5 July. Only the 1<sup>st</sup> *Abteilung* could be given 24 hours of technical rest once.

Since the Ferdinand guns, as well as the *Sturmpanzer*, show remarkably many technical weaknesses, it was foreseen that this type of armored vehicle should be withdrawn for 2 to 3 days after 3 to 5 days of action, and for longer periods after longer action, in order to get them back into technical order.

The workshops have worked day and night to repair the breakdowns, so that enough vehicles move against the enemy.

Through the excessive technical demands on all the vehicles—because of the tactical situation—they all really

ought to be overhauled every 14-20 days. The technical condition is now thus, that daily the cases increase in which repaired vehicles on their way from the workshop to the troops break down with new or other technical defects.

An action planned in advance as to numbers, the prerequisite of armored vehicles ready for action, has thus become impossible.

Only such vehicles can be reckoned on for action against the enemy as have survived the trip back to the front after being repaired.

I therefore report to the Pz.A.O.K.2 that in the shortest possible time my Regiment will, for technical reasons, not be ready for action, if it cannot be made possible to give all vehicles at least one week of time for thorough repairs.

The Regiment still has a total of 54 Ferdinands (four of them conditionally) and 18 assault guns. These "action-ready" vehicles also have been stressed to the limit.

It is thus urged that the Ferdinands be taken out of the HKL, the differently formed groups be dissolved, and only three groups be kept 5 to 8 kilometers behind the front as a mobile reserve. All other Ferdinands go to the workshops. Repaired Ferdinands can then be exchanged for those on the front.



Ammunition supplying was just as important. This is brought up by a Büsing-NAG Type 54500 truck.



A Ferdinand of the 2/653 is being moved just behind the front. Longer marches were made by rail, as a matter of principle.



**Suggestion: Action Group I:**

**Location:** somewhere near Krutaja Gora. Action in the Shumalovo-Dominio-Mal Byabzevo sector.

**Action Group II:**

**Location:** Stanovoi-Kolodes. Action in army's border sector near Shumalovo.

Regimental command post very near the Pz.A.O.K.2. Telephone connection via Pz.A.O.K.2 (code word *Schankwirth*). Radio action every half hour from 4:00 A.M. to midnight with both action groups is guaranteed. Removal of all vehicles not ready for action is in progress again, and will be carried out on 7/27/1943.

**Report no. 4:**

Heinz Groschl O.U., July 25, 1943  
Fpnr. 25 056

Professor Porsche and Mr. Porsche, Jr.  
Stuttgart-Zuffenhausen

Our vehicles are now in action for three weeks and have, with the previously driven kilometers, covered an average of 500 km. I have gathered enough experience that I can draw you a picture of the maintenance or the faults of our vehicles. In agreement with the commanders of the *Abteilung*, I can say that the weapon had success, and it was regretted by all that only the small numbers were available. With an average number of 15 kills per vehicle, one may well speak of success. It must, to be sure, be stressed that the stated figure could be much higher today. Unfortunately, the greater part of all

vehicles is almost always being repaired. This condition, moreover, worsens from day to day, because with the growing wear of all parts, the supply of spare parts, much too short in any case, is used up. Supplying with spare parts has almost never taken place to date. Of the original supply of 44 vehicles, 17 are lacking as of today. Of them, seven were given to the other *Abteilung* on orders from the Regiment; the other ten had to be listed as total losses. Next I shall report to you on the most common damages and problems.

**Running Gear (Wheel Trucks):**

Counter to expectations, no damage has been done through oversteering. The soft ground may have played an important role. The consumption of rubber buffers (especially on the two rear wheel trucks) was very great. Nuts have not loosened from bolts, although a great number of the vehicles have the old sheet metal shielding. Changing rolled-in running rings must now be carried out in great numbers.

Spring mounts have no longer broken since Neusiedl. Gear supports hold trouble-free. From enemy action, some 20 road wheels (swinging arms with spring mounts) and a great number of rollers have become usable. Damaged swinging arms, rubber spring casings, torn-off, often misshapen wheels, including the nuts, were the most common type of damage, usually caused by mines. The fifth road wheel, because of the high heat, retains no grease.

Trunion-bearing breakage of the front road wheels is probably also attributable to mines. Unfortunately, replacements were and are not available in sufficient numbers. When possible, parts from failed vehicles have been used.

**Intermediate Drive Gears**

Except for one case in Neusiedl, which was surely mentioned by Mr. Zadnik, no trouble to date. Worn track attachment screws are sufficiently known to you.

**Steering with Brakes**

Several cases of brake trouble in Neusiedl are known to Mr. Zadnik. No difficulties since then. In two vehicles, which stayed in action with damage for one or two days, a brake drum had been shot through. The inner parts were naturally destroyed completely.

**Hull**

Has proved to be almost impervious to shots. A shot (7.62 mm) through the side in the area of the rear ventilator driveshafts left everything, making only a few scars. This shot also remained without bad results. Practice has shown that the gratings are a vulnerable spot, for aside from incendiaries, an artillery shot or bomb hitting on or in the vicinity of the gratings sets the vehicle on fire. The splinters break into the fuel tanks or damage other important parts, such as water pipes. The temperature in the engine compartment is so high that in some cases the fuel in the pipes began to boil. The attachment of winches, tools, and cables outside the hull was a mistake. It was foreseen that these objects were demolished in a short time.

**Body**

Was also penetrated on the side in some cases. The sealing of the body and the gratings on the hull are extremely faulty, or missing altogether. Through the ball mantle of the gun barrel, fine but not innocuous splinters penetrate.

There were wounded men among the crews. The temperature in the fighting compartment is still too hot. It has happened that the ammunition for flare pistols has ignited itself. According to the commanders and aiming gunners, the warming of the shells stored on the floor leads to shots going too far.

**Gasoline Engines**

Motor failures have become especially numerous in the last days. The following damages occur: bent or torn-off valves, pistons broken as a result; bent or torn-off connecting rods; and cracked cylinder heads. I am of the opinion that too little power is the main cause of these phenomena. Cracks and unsealed cylinder liners are surely a result of overheating. A water loss of ten liters is, based on experience, not bearable. The seals on the exhaust manifold hold for only a short time. This is a constant fire hazard. The installation of the exhaust pipes is very difficult and time consuming work, as they are known to be inaccessible. At this time it is impossible to replace defective motors, because replacement motors are lacking.

**Cooling**

Unsealed and damaged radiators have already caused very much work. The radiators generally leak in the soldering of the lower brace. I assume that the short, stiff pipe connection between the lower braces of the two radiators is the cause. In knocked-out ventilators, the drive flange has been welded to the ventilator drive. Replacement parts for them are lacking.

**Generators, Electric Motors**

We had the last problem with a generator in Neusiedl. It was again the known connection in the gauge contact, still located below. Since then, the generators have had most problem free. It must, though, be noted that we have had mostly dry weather to date, and that the vehicles very seldom cool off. On the other hand, dust accumulation is very considerable, especially in the generators, although it does not seem to impede functioning.

**Gearshift**

Has also remained without problems worth mentioning. In three vehicles, a reversing field regulator has been replaced. Here, too, sealing from dust leaves much to be desired.

**Dynamos, Batteries**

The dynamo with reversed turning direction has caused major complications. The total breakdown of one vehicle is also attributable to that. Every day there were several vehicles with burned-out insulation, and thus dead batteries.

Mr. Zadnik will have reported to you already. We have now gone over to installing the dynamos with their former turning direction, and have already done this work on nine vehicles. The problems with them have stopped. Mr. Scharpf of the Bosch firm, who has stood by us and advised us in this situation, was unfortunately killed. The attachment of the batteries is bad. The first attack day alone cost us over thirty batteries. Every mine we hit has cost us at least one battery, and often all of them. In all cases, the casings were cracked or completely destroyed. Shots have often had the same effect. The two radio batteries have been strained very much, and thus must often be recharged outside the vehicle.

**Telectin Shafts, Tachometers**

Disturbances to telectin shafts also occur that can be overcome only with the greatest difficulty, for not the slightest spare part has come into our hands. Tachometers have broken down on many vehicles. These vehicles run without a tacho. Such instruments, which are also so hard to get, must function with the greatest precision, for in action there is no time to repair them.



Ferdinand 511 of Heavy Panzerjäger Abteilung 654 stands next to a Panzer IV, Type G tank. The difference in size can be seen.

The cannon is very good in its effect, but is almost constantly in need of repairs. For as yet unknown reasons, the riflings of the barrel break out, and the cartridge ejector does not function. The cartridges must often be removed with hammer and chisel. Driving through in combat with the barrel unsupported knocks out the elevation and traversing machines, so that at the muzzle a dead area up to 20 cm has been found. The heating of the entire vehicle often makes the aiming machines jam. Adjustment has to be made all over again after a short time. The front barrel brace was shot away in some cases. A precise report has been given by Staff Sergeant Br. to the commander of *Abteilung 653* to be passed on further.

#### Report no. 5

Panzer Jäger Regiment 656 O.U., 9/18/1943

Commander

To

Panzer Officer at Gen.St.d.H. Lötzen

After the Regiment was transferred from Briansk to Dnieppetrovsk, the making of major repairs, and the immediately resulting action of a battle group, the Regiment has never before had a chance to present an experience report.

The Regiment is making up for that with today's report. Transfer from Briansk to Dniepro. Went remarkably slowly, since moving was done in individual transports, and not in transport motion. The individual transports, therefore, needed up to nine days.

Making major repairs at the K Works or depending on them was impossible, because the works were overfilled. The Regiment, therefore, organized for itself a large hall from the Dniepro Steel Company and set it up. At the same time of arrival, the immediate action of a mixed battle group was ordered.

By applying all available strength, we made fast repairs within seven days, and prepared 15 Ferdinands and 25 *Sturmpanzer* for action. All the men at the workshops had given their all to this work.

Work was done twelve hours per day. The vehicles got no improvements, but were somewhat overhauled, equipped for the most part with fresh tracks from old production, new motors, etc. The results of these fast repairs showed itself already in loading, where 3 Ferdinands and 2 *Sturmpanzer* broke down on the way to being loaded.

The battle group was led by Captain B., Commander of *Panzerjäger Regiment 656*. The Regiment Commander was with the battle group.

The battle group was to be divided again in two days, one in Sinielnikovo, the second in Pavlograd.

When Sinielnikovo was reached by the first transport, the Sinielnikovo-Pavlograd railroad was already interrupted. Four Ferdinands and 12 *Sturmpanzer* were unloaded and, with a strengthened Battalion, the way from Sinielnikovo to Pavlograd was "fought free."

The march of some 40 kilometers, in pouring rain and soggy ground, brought no enemy contact. Not one shot was fired. The Regiment Commander was able to withdraw the Ferdinands and 3 *Sturmpanzer* from the march after two kilometers, in order to save them from the strains of the march.

In the meantime, an order had come to move the entire battle group to Pavlograd in visual contact, whereupon one transport train after another appeared, and one crane wagon, two trucks were fully destroyed or ruined, with one dead, one injured. In the same night, the whole battle group was ordered into action with Infantry Regiment 420 to free the road from Pavlograd to Dmitriyevka. This march also covered more than 40 kilometers. Eight Ferdinands and 12 *Sturmpanzer* took part.

There was little enemy contact on the march. One armored scout car was shot down, five 7.62 cm Pak captured. All eight Ferdinands reached their destination. Three of the *Sturmpanzer* broke down. The next day was a day of rest, with the chance for technical service. On these days orders were given that the Ferdinands must drive back to Pavlograd to be loaded there, and sent to take up positions in Sinielnikovo. Through repairs and the arrival of more *Sturmpanzer*, the number was raised to 16. The *Sturmpanzer* were subordinated to the 23<sup>rd</sup> Panzer Division, and made a march on the following day, with intensive enemy contact, whereby they shot well, in the direction of Vassilikovka -Grigerievka. The battle group was led by Captain B., Commander of I./Pz.Jg.Rgt.656, while the Regiment Commander went to Sinielnikovo in the Ferdiaand.

While *Sturmpanzer* had further action—partly with the 9<sup>th</sup>, partly with the 23<sup>rd</sup> Panzer Division—the Ferdinands remained at rest. Intensive negotiations with the 1<sup>st</sup> Panzer Army led to the entire battle group, with further retraining of the front, staying in a so-called advanced bridgehead at Dniepropetrovsk until this was occupied by the troops, then ready for defense beyond the river. For this it was necessary to build a special ramp at a small railroad station and prepare for loading.

After it became clear that at some time between the 25<sup>th</sup> and 30<sup>th</sup> the battle fronts would reach the riverbanks, and the city would already be evacuated by all repair services, the presence of the Regiment Commander in Dniepropetrovsk was necessary. The entire battle group was taken over by Captain B., with the closest contact with the Regiment, the Regiment Commander himself in Dniepro.

Discussion with the Army resulted in the plan for the command to place the Regiment at the Speroshie bridgehead, which had to be held through the winter under all conditions; with subordination to the XVII Army Corps. In Dniepropetrovsk, decisions of the most far-reaching importance had to be made. The Army Group and the Army arrange for the whole Regiment, while the view prevails here that at the time, only a battle group should be placed at the disposal of the Army Group, while the rest of the Regiment, the mass of it, stands ready as the reserve of the OKH. No telephone connection could be made with either the Inspector-General or the OKH. Telegrams were accepted only in limited sizes. On the other hand, far-reaching and top-speed decisions had to be made about the evacuation of the major repair shop.

#### Major Repairs

After the battle group had been prepared, 14 Ferdinands were worked on again, and were to be generally repaired with all changes made. To carry out these repairs, the most varied parts are still lacking. News is received that the trains with these parts departed from Germany, but whether they will arrive on time, or are even still en route to here, seemed questionable. On the other hand, we had to be able under any conditions, within 5 or 6 days, to make these Ferdinands mobile somehow. Thus, it was ordered by the Regiment commander to prepare some vehicles, if necessary, with used parts to the extent that they could move, in order to be loaded.

The next 13 *Sturmpanzer* approached their completion. What with the intention to evacuate the repair services, these repairs are to be regarded as fast, and not as general repairs. These repair services also move out on the 19<sup>th</sup> and 20<sup>th</sup>. For new housing of the major repair service, reconnaissance in the direction of Krivoi Rog-Kirovograd is begun early. For the most part, these villages are overfilled, and space for a major repair service is not to be found.

After the orders were given by the Army Group and Panzer A.O.K. 1 for the future action of the Regiment at the Speroshie bridgehead, new reconnaissance was undertaken, as advised by the Defense Command in Dniepropetrovsk, in the direction

of Nikopol, as there were big buildings there. A particularly good, useful one belongs to Luftgau 25, and will be emptied in time. Negotiations with this office are going on at this moment. Other available buildings are being used by the railroad, but when this is somewhat better organized, using them might also be possible. These negotiations are also going on at this time via the Defense Command of Dniepropetrovsk. To understand the further intentions of the OKH, and to know whether these dispositions of the Regiment find approval, the following urgent teletype was sent, after all imaginable efforts to make telephone connections failed:

Fernschreiben SSD Orts-Unterkunft, 9/18/1943

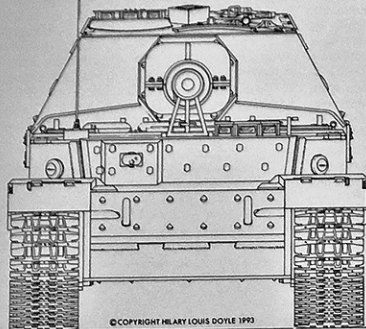
To Panzer Officer of the St.D.H. Lötzen, Rgt., asks for fastest explanation and decision, whether all parts are tactically subordinated to Army Group South, since action is foreseen only for the Speroshie bridgehead.

Transfer of major repairs necessary as quickly as possible and intended to go to Nikopol.

Panzer Jäger Regiment 656  
No. 357/43 geh.

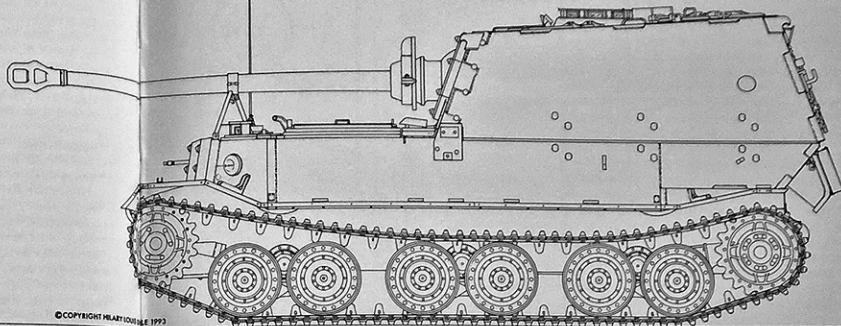
The transport of the available 42 Ferdinands (8 of them are in action) will cause difficulties, since apparently the obtaining of the necessary Syms wagons will cause difficulties. For this purpose, the land route from Dniepropetrovsk to Speroshie was scouted, and the strengthening of the bridge was discussed with the army engineers. If need be, the whole column could take this route in case of danger, and then later be transported by rail from Speroshie to Nikopol. This last will only take place if special railroad cars do not arrive. A large quantity of spare parts is also to be transported. The railroad is more than overburdened in the whole army area. It thus seems questionable whether enough railroad material to transport these valuable goods will be available at the right time. For this purpose, large buildings near the railroad in towns west of Saporoshie were inquired about. Thus, the possibility exists of shipping this vital material there with what is in the Regiment's own loading area, in order to get it moving either by road or by rail to the repair place, if possible.

Front view: (New commander's cupola—tracks—radioman's machine gun—reversed gun armor—rain awning—braced track covers)



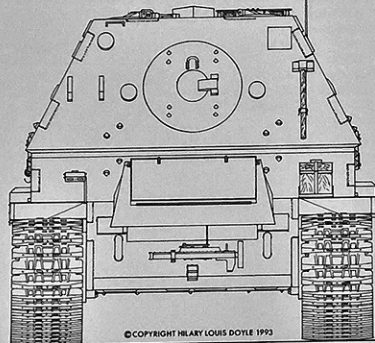
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Elfort (generally overhauled Ferdinand, 1944)  
 (New tracks, Type Kgs 646/40 (30) mounted in the opposite direction from the original tracks—radioman's machine gun—additional armored gratings over the radiators—sun shield for driver's periscope—new commander's cupola (as StuG)—headlights removed—track covers reinforced—tools attached at the rear—added armor on the weapon in front of the ball mantlet turned over)



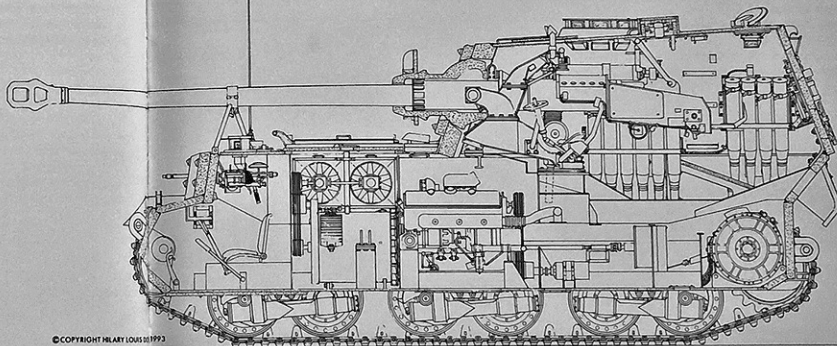
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Rear view: (Tools attached at rear—holder for spare track links on the left side of the vehicle)

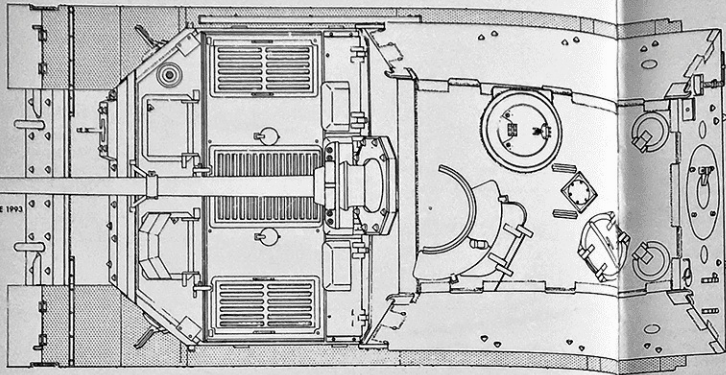


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Side view: (division from front: Driver's/radioman's room, room for cooling fans and generator, two Maybach HL 120 motors, electric equipment, generators, and ventilators for powertrain cooling, driving motors and hot air escape at rear—longitudinal torsion bar suspension for wheel tracks—cannon brace on roof—tracks for sprockets each on the right and left sides of the fighting compartment—improved ammunition storage—nine shells in the far corners of the fighting compartment)



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Top view: (New armored gratings over the radiators)

So it has come with a word of foresight, that if Dniepro, all of a sudden, should come into the range of artillery fire, this location can be vacated by parts of the Regiment.

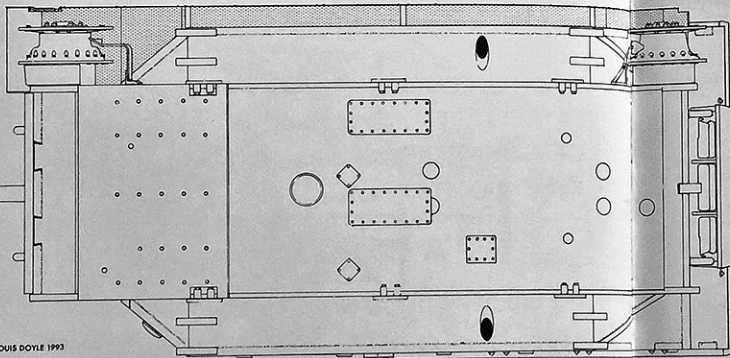
At the same time, command posts for the Regiment, for the two *Abteilungen*, and possible places for the companies in the Seroshie bridgehead, thus were moved east of the river, and places for the supply trains and all the parts not among the fighting forces were formed west of the river.

The final reconnaissance will be completed on the evening of the 19<sup>th</sup>, and it is to be hoped that by that time a decision from OKH will have arrived as to whether the Regiment is to take its winter quarters in the Seroshie bridgehead. Moving the mass of the Regiment without battle groups would then be done most quickly, and moving the battle groups would be assured. All these measures were taken in closest contact with Army Group South and Pz.A.O.K. 1.

The action of the Regiment in the bridgehead is planned so that positions or camps of the companies are found, where the combat vehicles can go, some 5-8 km behind the combat front. At the same time, radiating paths to the HKL must be found and, if necessary, be prepared. In this setup it would be possible to put in the parts of the Regiment where they really are needed in case of a known attack. It goes without saying that a thorough protection of the combat vehicles must be begun at once there, so that they will not freeze and become immobile in the winter. For this reason alone, the final decision about winter use must be made quickly.

It must not go unmentioned that in the next weeks and months, by the whole regiment, one battle group of varying strength must always stand ready for action, while the other is being repaired. Thus it must be determined that, if the battle group is commanded to take action, and if the evacuation of the former major repair center is necessary, no Ferdinand to date has left the commanded and intended major repairs with all changes. Not only the first repair series of 15 vehicles, but also the next 14 are to be ready for action; all vehicles of these two series, however, must have the required changes made, thus going through repairs again. The same applies to the *Sturmpanzer*. Since the uses of these vehicles in winter, as opposed to summer, will be limited, it must also be assured that by the new year the whole regiment will have had general repairs.

View from below (for better overview without components, the right chassis side is shown): (Dirt deflector for drive wheel—additional armor on the forward bottom of the hull—Exhaust pipes end between body overhang and tracks—rear air outlet normally covered by wire mesh)



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The Panzer situation of the Regiment is thus in part as follows:

#### **Battle Group:**

8 Ferdinands, fully ready for action.  
14 *Sturmpanzer*, the greater part of them no longer ready for action, since they have broken down, for the most part, because of damp weather and bad ground surface. The recovery of these vehicles with all available towing means is in progress. It is to be hoped that all of them can be taken away from enemy hands.

#### **In Dniepropetrovsk:**

42 Ferdinands, seven finished with quick repairs in three or four days, 14 more finished in six or seven days. All the rest without any repairs—long-term.  
Ten *Sturmpanzer* presumably finished with quick repairs on the 20<sup>th</sup> or 21<sup>st</sup>. All others from renewed action or cannon damage—long-term.

#### **Intention of the Regiment:**

The formation of a battle group soon for the Sporoshie bridgehead, consisting of 7 Ferdinands and 10 *Sturmpanzer*. After the return of Battle Group B, transfer of all satisfactory parts of this battle group to the Sporoshie bridgehead battle group.

After setting up the repair base at Nikopol:

Carrying out major repairs on 10 Ferdinands (in the halls under consideration, work on more cannot be carried out at once). After completion, moving these battle portions to the Sporoshie bridgehead and taking in ten more Ferdinands. After completion, taking out the Ferdinands not yet fitted with form changes from the bridgehead and finishing the major repairs.

For the *Sturmpanzer*, a repair *Abteilung* must be set up, after the completion of bringing back the individual repair *Abteilungen*, by the Army or Army Group, which will carry out general repairs. Then the transfer of a complete *Sturmpanzer* Company to this repair *Abteilung* will take place, and this, after repairs are completed, will be exchanged for another complete Company. Thus, it would be attained that as many *Sturmpanzer* as possible are ready for the bridgehead, the units are finally in order again, and in three moves the *Abteilung* has finished the major repairs. The Regiment requests that notice be taken of this deposition, and that orders, if necessary, be given if they do not correspond to the wishes of the higher command positions.

#### **Report no. 6**

Panzer Jäger Regiment 656 Regimental Command Post, 9/27/1943  
Commander

To

The Panzer Officer at Chef Gen. Stab d. Heeres  
Interim report of Heavy Panzer Jäger Regiment 656.

After the news from OKH arrived on 9/19 that the whole Regiment will be subordinated to Army Group South, Army Group South turned the Regiment over to Pz.A.O.K. 1; it was ordered from here that the Regiment was to be placed in the bridgehead with all usable forces and go with the rest to be repaired.

At the Sporoshie bridgehead, the Henrici Group (40 Pz.K.) was instructed that all usable parts should be used as a mobile reserve in the bridgehead.

Two battle groups are being formed, each under the command of one of the *Abteilung* Commanders: Group North, under Major B., and Group South under Major K. Each group will receive about 12 to 14 Ferdinands and 10 to 12 *Sturmpanzer*. In addition, a limited number of Ferdinands will find positions on the main arterial roads of the city. The Ferdinands of the battle groups are in passable condition through quick repairs, and are usable for the planned tasks—mobile armored defense at arising focal points. No great demands can be made of the armored vehicles to be used on the major arterial roads. They serve as a last reserve and last firemen.

All vehicles shall be set up so that they are at the edges of towns. The battle groups have defined areas in which they will be used if needed. Approach routes and terrain are being, and will be scouted. A crosswise connection is scouted, so that one battle group can also be used in the other's area.

This mobile antitank defense will constitute a major factor in the bridgehead.

The action of these battle sections is particularly assured, in that both battle groups are subordinated directly to the Regiment Commander, and he directly to the Henrici Group; in addition, the Regiment Commander has been confirmed by the Henrici Group as the Commander of all antitank defense in the bridgehead.

#### **Repairs:**

For the final major repairs of the Ferdinands, after long negotiations with the *Lufwaffe*, the halls in Nikopol could be obtained. To be sure, structural changes must be made there, and housing for all the workshop personnel must be created. I have obtained personnel from the O.T. to reach that goal more quickly. Since the work in Dniepropetrovsk cannot be continued further through the transfer, the transport of the Ferdinands proceeds only slowly because of heavy railroad use; this work had been reinforced with a workshop company. When the Ferdinands arrive, the housing arrangements will be such that the work can be started.

It is to be hoped that the work can be started on about 1 October.

It is arranged so that each time a complete Company goes for repairs then, after final completion—including the planned form changes—is exchanged for another. Thus, in time the entire Ferdinand *Abteilung* will come through; action at the bridgehead will not be endangered.

The Regiment requests at this time that all offices be instructed to direct all supplies for Ferdinands to Nikopol.

The *Sturmpanzer Abteilung* has been able to settle its own workshop platoon passably west of the river, according to conditions. Here small and medium repairs are carried out, in order to assure the readiness of the combat companies for action. With the Panzer A.O.K. in the Army Group it has been agreed that one Panzer Repair *Abteilung* be firmly defined to generally repair one *Sturmpanzer Company* at a time. In these days we are receiving news as to which Repair *Abteilung* this will be.

This general overhauling is absolutely necessary. It turned out in the last actions that the previous fast repairs proved to be insufficient. The *Stupa* have done a tremendous job, and they are breaking down now in great numbers. The effective general repair is unavoidable. Thus, it must be thoroughly determined whether the vehicles that suffered mine damage in the Orel bend and were made mobile again by changing running gear have not somehow been distorted. The breakdowns of such former mine damaged vehicles at this time is noteworthy.

Through these dispositions it is being attained that:

2/3 of the Regiment is on duty  
1/3 is making general repairs very carefully.

The actions taken at the bridgehead to date took place without major losses.

In the last action at the Dniepropetrovsk bridgehead, one *Stupa* had to be blown up. It was so badly damaged by a direct hit that when the front was retaken, it could no longer be recovered. When blown up, it flew completely into the air.

In this last action, two T-34 tanks could be shot down and three antitank guns destroyed.

The precise Panzer situation will be reported when all armored sections have arrived. As the greater part of all armored vehicles is coming here partly by rail and partly by road, the Panzer situation cannot be seen completely.

At this time, 11 Ferdinands and three *Stupa* are here on duty.

Von Jungenfeld

#### **Report no. 7**

16<sup>th</sup> Panzer-Grenadier-Division Division Command  
Post, 10/7/1943  
—Commander—  
Abt. Ia No. 796/43 geh.

Re: Cooperation with "Ferdinand" and *Sturmpanzer* vehicles.

To achieve a successful cooperation between infantry and Ferdinand tanks, one must be clear about several details of these overly heavy vehicles:

1) The Ferdinand has a weight of 75 tons. It is therefore more ponderous than the tiger on the battlefield. Approach and readiness, as well as attack terrain, require more careful scouting than for use of the Tiger.

2) The tremendous weight of the tank makes the smallest repairs more difficult. For example, to change a track, one needs a heavy winch to lift the tank. It is almost impossible to undertake repairs to the tank on the battlefield and under enemy fire. The breakdown of a Ferdinand close to the enemy is therefore a very disagreeable situation. If this happens within the terrain occupied or dominated by fire from the enemy, the tank must usually be blown up. In the attack on Kursk, numerous Ferdinands, which had pushed far into the enemy and been separated from the infantry by massed enemy artillery fire, were lost in this way. In addition, the engines of the Ferdinands, with the great weight of the tank, hold out for only a very short distance. In the Ferdinands that have seen action in this combat area, the engines have been far overstressed, and thus very prone to breaking down.

3) The Ferdinand has only its cannon as armament. In a field of enemy infantry, it is exposed quite helplessly, without MG and 2 cm cannon, to the approach of enemy destroyer troops. The gun is not fully traversable in its turret. If the tank wants to fire to the left or right it must turn itself, which requires much time because of its ponderousness. Also, the great dead angle of some 200 meters proves very unfavorable in such a situation. The Ferdinand tank is therefore fully unsuitable for moving into the enemy alone.

4) The Ferdinand tank is a powerful structure that, as soon as it appears on the battlefield, attracts the heaviest enemy fire from all sides. It is impossible to let infantry attack along with these tanks. It inevitably is stopped, with heavy losses, in the fire directed at the tanks.

On the other hand, the Ferdinand tank has the following good qualities:

a) The armor is so heavy that enemy fire up to 12.2 cm has little effect on it. In the combat around the Sporoshie bridgehead, no Ferdinand has as yet fallen to enemy fire. But one tank that had ventured too far into the enemy infantry field alone was blown up by a Russian tank destroyer troop.

b) The Ferdinand has a cannon with incredible firing capacity. It shoots any T 34 or K.W. 1 to pieces at the greatest range.

c) Along with *Sturmpanzer* that fire 15 cm shells directly at short ranges with destructive effect, both types of tanks can provide the strongest and most destructive fire.

When one considers these advantages and disadvantages of the Ferdinand and *Sturmpanzer*, one comes to the following conclusion for their cooperation with the infantry:

1) These tanks are not infantry escort tanks. They must be left by the advancing infantry, and affect the area of the attacking infantry with their fire, which is still effective at long ranges. The staying of the infantry in the presumed cover of the large tanks is destructive, and usually ends with heavy losses.

2) When penetrating the enemy, the Ferdinands and *Sturmpanzer* are accompanied purposefully by their own Panzer III and IV tanks, which use their mobile fire to keep close attacks of enemy infantry away from the Ferdinands. Where M.T.W. units are available, they accompany the Ferdinand attacks more purposefully.

3) When the infantry advances boldly under the tremendously heavy fire cover of the Ferdinand and *Sturmpanzer*, and covers their penetration points with concentrated fire; then the infantry can reckon with some assurance on a successful attack.

Prerequisites for such success is, of course, careful reconnaissance and conferring as to terrain, beginning, and course of the attack between the leaders of the Ferdinands and the infantry before the attack begins.

I expect that these guidelines for cooperation with Ferdinands and *Sturmpanzer* will very soon become the common property of all officers, but above all the battalion and regiment commanders. Ferdinand and *Sturmpanzer* are at present the strongest and best attack weapons of the German Army. Using them practically and cleverly brings the infantry good chances of success and diminishes their losses.

(signed) Commander

#### Report no. 8

Panzer  
Jäger Regiment 656, Regimental Command Post, 11/2/1943  
Commander

To  
Panzer Officer at Gen.St.d.H. Lötzen  
Situation report on the Heavy Panzer-Jäger-Regiment 656  
The Regiment again presents the following situation report:

#### Ferdinand:

Since the last situation report of 10/17/1943, the Regiment has been in action daily without interruption. Since the Regiment had to support defensive fighting in the zones of

both the XXII and XXX Army Corps, long marches from one focal point to another were often unavoidable, sometimes covering 60-80 km in the shortest time, so that tanks broke down with technical damage again and again. The repair services and workshops, though, worked vigorously, so that a number of weapons were always forcing the enemy.

The number of weapons facing the enemy varied very strongly. It rose at times to 20, but also sank at times to four—depending on the action and the already mentioned marches. The establishment of a North and a South Battle Group could not overcome this bad situation, since at an absolute focal point the whole available force had to be put into action.

The major repair shop then finished ten vehicles, and the fast repair shop at Nicolop four more, so that these fourteen weapons could be thrown most quickly toward Krivoi Rog at the moment of greatest crisis for the LVII A.K. (Pz. K.), where they went immediately from train unloading to action, and in three days could destroy:

21 tanks  
34 antitank guns  
8 guns (captured)

and thus have a considerable effect on the success at this place. At the same time, four weapons were in action with the XXV A.K.—likewise, three weapons with the XVII A.K.

In these days, then, the Regiment was divided in action among three army corps, and a total space of some 150 km. This action was necessary because of the tactical situation, but places tremendous pressure on the Regiment's command in terms of supplying, towing, and repairing services.

The Regiment is therefore being assembled now, after the conclusion of the defensive combat at Krivoi Rog—once again in the area of the XXX A.K. and XVII A.K.—and is to stay here on the seam between these two corps, forming an army reserve to be applied at a necessary focal point. As of 11/5/1943 14 Ferdinands are ready for action; some ten more will be ready by 11/8, and will reach the assembly area from Nikolop.

It is to be hoped that by 11/12/1943 another 3 or 4 vehicles can be prepared for action.

In comparison with the action-ready numbers of other armored units, it can be determined that the Regiment, despite the many technical breakdowns, of which a report will follow, was always in action with a goodly number of weapons—this could be attained only with the purposeful and tireless work of the workshops, repair units, and repair services.

The achievement of these men is above all praise. Under the leadership of

*Oberleutnant* d.R. and *Dipl.Ing.* R and K.V.R. Sch. these units have a decisive share in the success of the Regiment.

It must therefore be requested once again, outside of regulations, that the Regiment be supplied with 10 K.V.K. first class and 50 K.V.K. second class, so that these men can receive appropriate recognition; without the ceaseless work of these men, the Regiment would long since have come to grief.

#### Repairs:

The Regiment determines that at this time the main damage is to gasoline engines, tracks, and running gear.

#### Motors:

The performance ability of the engines is some 800 kilometers. After this distance the motors are shot, and must be replaced or repaired. The motors newly installed in mid-September have already covered 500 to 700 km, so that the Regiment simply needs about 90 motors urgently and immediately for the 48 Ferdinands on hand; otherwise all the vehicles will break down. This will be impossible with the present motor shortage in the Reich, so that the overhauling of the motors must be done on the spot. With lasting front movement, and the resulting constant transfers of motor repair services, no other solution is possible.

The Regiment therefore refers to the report of 9/27 and that of 10/17/1943, in which this suggestion was already made. Although it was made known as urgent in the report of 10.17, no news about relevant decisions has reached us to date. The Regiment thus found itself obliged to send the following urgent teletype to the Inspector-General on 11/1/1943:

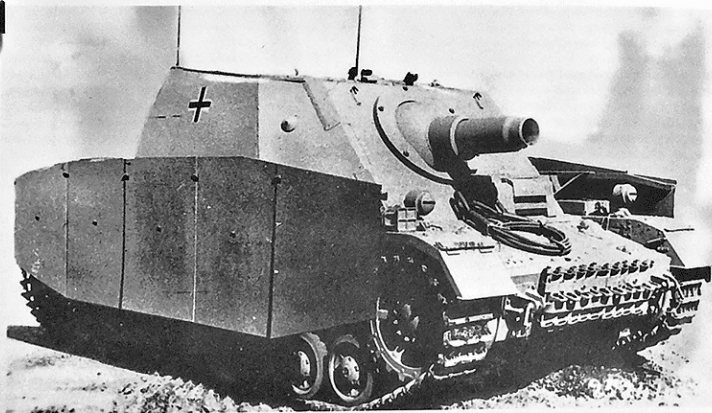
To  
Inspector-General of the Panzer Troops, Lötzen

Urgently needed immediate shipment by air of 20 sets of pistons and cylinder liners for Ferdinand motors, including 4 sets of tools for installation of the same. Resulting from lack of motors and daily action, further repairs, and thus all action, is absolutely put in question. Report follows by courier post. Please teletype answer via Pz.A.O.K. 1.

Gen. V. Jungenfeld  
Oberstlt. U. Rgts.Kdr.  
Pz.-Jg.Rgt.656

It is to be hoped that this necessary material is now coming on a Ju 52. Since here not one replacement motor is on hand anymore, the motor damage occurring almost daily can no longer be repaired—these vehicles will now break down once and for all.

The Regiment has already drawn attention to this.



Sturmpanzer (early version)

### Tracks and Running Gear:

The tracks that were finally delivered are catastrophically bad. Links break every day. On a march of 40-50 km, 11 to 14 track breakages are no rarity. Completely new tracks are in view for November. It is necessary, as the new tracks are extraordinarily urgently needed.

Track damage in action can lead to the blowing up of the whole vehicle.

The faulty tracks also damage the running gear, so that this is often seriously involved, along with the track problem.

In the last days the enemy, now that he has learned that he cannot defeat the armor of the Ferdinand, fires almost exclusively at the running gear. This causes a particularly great need for these parts. For example, of 15 Ferdinands, ten are being repaired just for running gear damage. At this time several railroad cars of spare parts are en route, and should reach the Regiment in the next days, as a result of track damaged in the Kolonnen area.

The urgent need of motors is unaffected by this. It can only be dealt with by immediate shipping of spare motor parts and necessary tools, so that the Regiment is in a position to carry out these repairs itself.

### Sturmpanzer:

Major Kahl has personally reported on the *Sturmpanzer* situation and delivered the report of the Regiment.

Meanwhile, the Regiment has already sent 14 *Sturmpanzer* on the march to Vienna; this was necessary, since no fewer than 32 defective *Sturmpanzer* are standing around here that, in the many backward movements, were in danger of being blown up, or falling into enemy hands for lack of transport.

At this time only three *Sturmpanzer* are in action.

Spare parts for the *Sturmpanzer* are also en route, so that it is to be hoped that, in the foreseeable time, ten of this *Abteilung's* weapons can be brought into action.

Once again, a general overhauling of this *Abteilung* at a suitable place must be urged. The question itself has been discussed at length with the appropriate offices by Major Kahl.

### Success

In the last days the Regiment has again contributed considerably to strengthening the defensive front. The Regiment's action has become a symbol for friend and foe.

The Regiment's success from 7/5 to 11/5/1943, thus through four months, adds up:

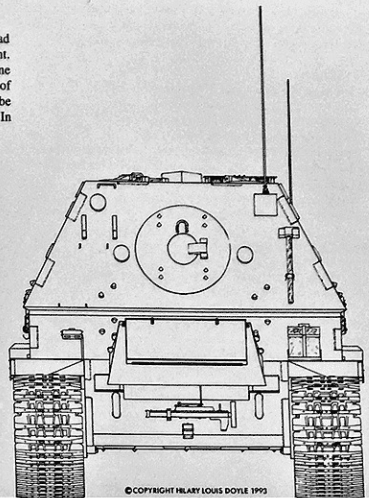
582 tanks  
344 antitank guns  
133 guns  
103 antitank rifles  
3 aircraft  
3 armored scout cars  
3 assault guns

The figures above represent only the actual findings. In defensive action and defensive movements an exact count was not possible. A great number of enemy dead, estimated at 12,000, with several hundred infantry weapons that were destroyed in these battles, increase the total success of the Regiment significantly.

von Jungenthal

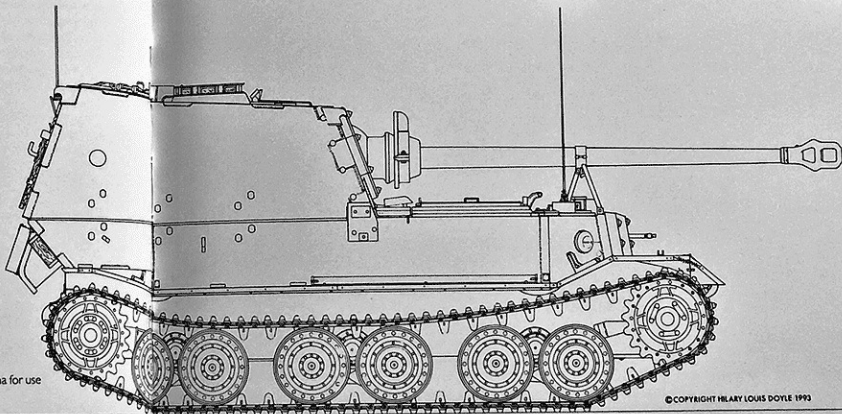
### Modification and General Overhauling

On September 1, 1943, the Heavy *Panzerjäger* Regiment 656 had already turned in a long list of 31 urgent wishes for improvement. It included, among others, the suggestion of mounting a machine gun near the cannon, so that it could be fired through the barrel of the 8.8 cm gun. If the materials needed for this change could be made available the troops would carry out the work themselves. In fact, 50 Ferdinands could be rearmed within six weeks.



Rear view. (Hooks for spare track links moved upward (thus the MP port was eliminated))

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Elefant as Command Vehicle  
Right side; (installation of an additional antenna for use as command vehicle)

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But instead of rebuilding these vehicles near the front, the order came to send the 48 remaining Ferdinands to the manufacturer, the Nibelungenwerke. Here is a list of the desired modifications:

#### Firefighting:

- Modifying the gratings for better splinter protection.
- Shielding the gas line from the exhaust.
- Changing the attachment of the exhaust pipes.
- Protecting valve covers from dripping oil.
- Preventing the collection of leaves, etc., on the exhaust pipes.
- Making the engine compartment more accessible from the fighting compartment.
- Installing a fire extinguishing system (consisting of two CO<sub>2</sub> foam extinguishers, each with 5-liter capacity).

#### Mine Damage Protection:

- Flexible mounting of the batteries.
- Removing the attachment feet of the generator casing.
- Improving the dynamo bracket.

#### Removing Sources of Low-tension Power System Damage:

- Installation of dynamos made by Bosch firm.
- Feeding the outside power of the generators with 12 instead of 24 volts (to improve radio conditions)

- Radio desensitizing of the body and hull.
- Protecting the ampere meter from damage.

#### Drive:

- Make sliding clutch firm.
- Install greater reduction gearing in the gearbox.
- Deliver new tracks.
- Renew rubber buffers on running gear.

#### Body:

- Attach rain gutters to sides of roof.
- Sealing the driver's and radioman's hatches and the roof plate.
- Sealing the gap between hull and body.
- Attaching grids and gratings.
- Increasing the tension of the springs on the driver's and radioman's hatches.
- Welding the fillers to the hull in front of the body.
- Attaching spare track links, tools, and equipment boxes to the rear of the body.
- Attaching rain and blinding protection over the periscopes.
- Attaching air escape ducts under the rear shield.
- Firm welding of the hinges on the engine compartment cover.

#### Further changes:

- Changing the shape and angle of the gun shield.
- Protection from splinters behind the ball mantlet.
- Stiffening or strengthening of the body roof.
- Emergency exit through assembly hatch in the rear body wall.
- Commander's cupola with periscope.
- Suggestion of attaching an inserted MG for the gun barrel.
- Periscope for the gunner.
- Machine telegraph between commander and driver.
- Improve cooling system and ventilator drive
- Improve attachment of rear shield.
- Change the exhaust system (needs strong track deflectors).

In addition to these modifications, a ball mantlet was installed in the driver's front plate, near the radioman. It held a machine gun for close-range defense.

The Nibelungenwerke finished the general overhauling of 20 Ferdinands in February; 27 followed in March 1944. Five more were so badly damaged that they could not be repaired at the factory. They were turned over to the Army Motor Vehicle Workshop (Wien-Arsenal) in Vienna.

The following chronological list shows the problems in the general overhauling of the vehicles:

12/13/1943	As per order of 12/10/1943, PzJgRgt 656 with <i>Abteilungen</i> 653 and 216 was transferred out of Army Group South area (Krivoirog-Nikopol area) to St. Polten for refreshing.
1/19/1944	As per order, sPzJgRgt 656 moves quickly for refreshing.
1/19/1944	To date, eight Ferdinands were dismantled at Nibelungenwerk. Their assembly was begun. Spare parts from Schutno had not yet arrived.



According to an order of August 26, 1943, Heavy Panzerjäger Abteilung 654 was transferred as a personnel unit (without equipment) to the Orleans area and turned all their Ferdinands over to Abteilung 653. The picture shows Ferdinand 612 near Karachev in August 1943, after being turned over to Abteilung 653.

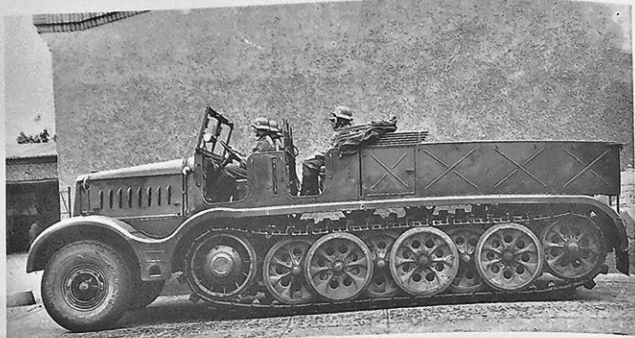


Vehicle 511 of Heavy Panzerjäger Abteilung 654 is seen during the transfer of the Ferdinands to Abteilung 653. The SSyrs special transport car of the German Reichsbahn can be seen.

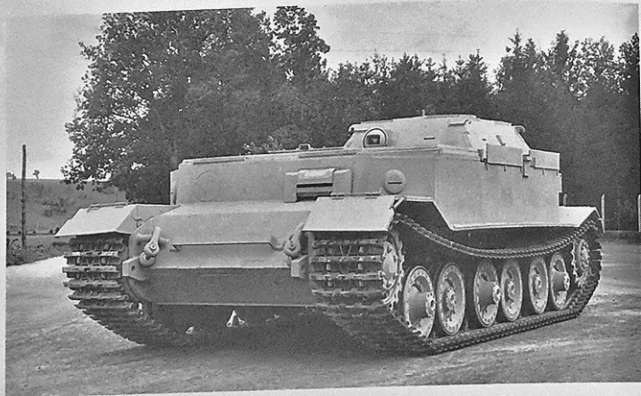




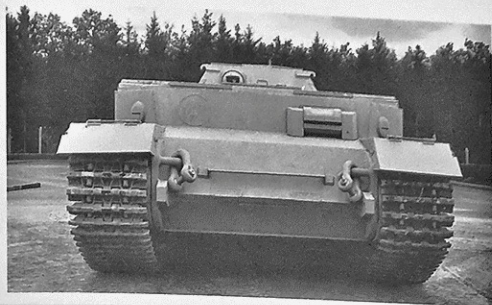
The losses were high. The Standard Recovery Tractor of the German Wehrmacht, the 18-ton halftrack, was far from sufficient to recover a Ferdinand. There were often adventurous attempts made, as seen in this picture of five 18-ton halftracks and one Ferdinand.



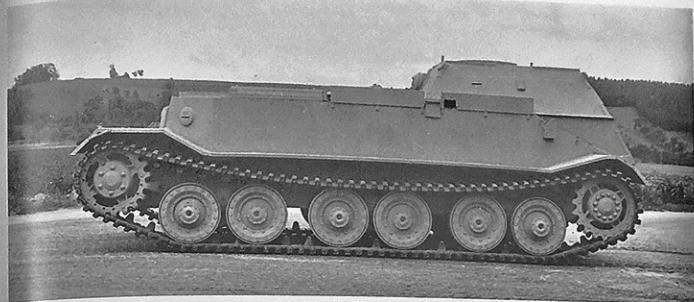
The 18-ton Heavy Towing Vehicle (Sd.Kfz. 9)



Three of these Recovery Ferdinands were finished in August 1943 and sent to units the following month.



Front view of the Recovery Ferdinand which, unlike the combat vehicle, had no extra armor plate.



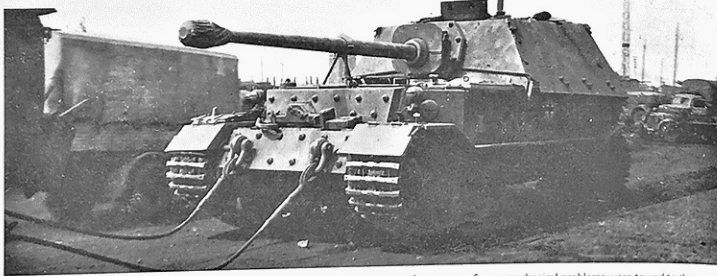
The left side of the Recovery Ferdinand.



A rare picture of a Recovery Ferdinand in action.



A Recovery Ferdinand of Heavy Panzerjäger Abteilung 653 at the Nikopol bridgehead, November or December 1943.



This scene appeared wherever Ferdinands were used. Vehicles that had broken down from enemy fire or mechanical problems were towed to the nearest railroad loading site, and often left to their fate there. Towing vehicles and railroad cars (with locomotives) were only seldom available when they were needed.



The loss of this Ferdinand was caused by a KE hit that struck the 60 mm side of the hull. The splinters of the armor blocked the leading wheel.

1/19/1944

To Ni-Werk from OKH Wa I Rü (WuG 6): Re: Series 15 cm *Sturmpanzer* IV, repairing Ferdinand. In agreement with HDL Saur and Dipl.-Ing. -streich it is arranged that producing the 15 cm StuPz is transferred at once from Vienna to Ni-Werk, and repairing of Ferdinand be taken over at once by HKW Wien."

1/21/1944

To OKH WuG 6 from Army Vehicle Workshop, Vienna 77, Arsenal.  
Re: Series 15 cm StuPz IV and repairing the Ferdinand. Because of already advanced dismantling of Ferdinand at Ni-Werk and spare parts stored at Linz, Ferdinand repairing stays at St. Valentin (except those ca. 6 pieces that have suffered major

1/25/1944

damage from fire and explosion, and thus require longer repair time. The H. Kfz. Workshop in Vienna will take over those six vehicles.

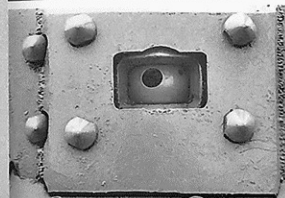
Refreshing of s.Pz Jg Rgt 656: Since 12/14/1943 all field transport from Russia has reached Strashof railroad yards. From 12/16/1943 to 1/10/1944, 21 transports of the 656<sup>th</sup> have left.

- Ferdinands to Ni-Werke, St. Valentin  
- StuPz IV and PzBetWg. III, PzFgst. III, IV and V (ammunition carriers) to H.Kfz. Workshop, Vienna Arsenal.

At the Nibelungenwerk, 18 Ferdinands have already been dismantled and are being repaired. The whole repair of the Ferdinand depends on the timely delivery of the spare parts from Schutwo, and the timely delivery of replacement HL 120 motors. Under these requirements, the repair of at most 43 Ferdinand can be reckoned on by 3/15/1944.



Ferdinands that were too badly damaged were sent back to the manufacturer for general overhauling. This operation was mostly finished by March 1944.



In the process, the vehicles were brought up to the latest state of development. Among other things, a commander's cupola was installed, and a ball mantlet for a machine gun planned for the radoman. This was protected by an added 80 mm armor plate. The modified vehicles were given the evocative name of Elefant.

2/1/1944 Insp.d.Pz.Tr. in 6 to *Obersst Mildebrath*: "Immediately make a Ferdinand Company ready."  
 2/1/1944 Prepare through sPzJgRgt 656 field use and readiness to march of a Ferdinand Company with 10-12 Panzer (Ferdinand)."  
 2/2/1944 At the Nibelungenwerk, 24 Ferdinand were dismantled to date. The assembly of the first series (8) could be carried out by about 2/10/1944. By order of 2/1/1944 to set up a company with 10 to 12 Ferdinand disturbed series repairs. The Ferdinand Company also had to be given a Workshop Platoon. The departure delayed the further repairing by at least 3 weeks. Keeping the finishing date of 3/1/1944 thus became impossible.  
 2/9/1944 The assembly of the first series of 8 Ferdinands is almost finished. Their finishing date is seen as 2/11/1944. 3 more Ferdinand were finished for the Ferdinand Company quickly by interrupting the series repairs."  
 2/11/1944 Of the Regiment reported on 1/21/1944, only two companies left by the establishment date of 2/15/1944. (One Ferdinand and one StuPz Company). The rest of the Regiment, with strength of 1800 officers and men, will remain in St. Pölten until about 3/1/1944."  
 3/1/1944 1/PzJgRgt 656, sPzJgAbt. 653: "8 Ferdinand were finished on 2/26 and sent to St. Pölten. They were turned over to the 2nd Company for formation and training. The remaining 25 Ferdinand and 2 Recovery Ferdinand were, minus 4, dismantled and being shipped, 2 to Hall 8 in Nibelungenwerk after freeing it for assembling through Draisine production.

The finishing in good conditions of 8 more Ferdinand can be reckoned on by 3/8/1944. Since finishing the remaining 19 depends on the delivery of running-gear parts and gratings, these tanks must be set aside without running gear and gratings until these parts are delivered.

2 *Bergepanther* and 3 *Munitionspanzer* III are finished; the rest of 2 Panzer III and 2 *Munitionspanzer* were promised by 3/10/1944 by the Vienna Arsenal.

The 4 burned-out Ferdinand chassis were dismantled at the Ni-Werk, and the hulls with the aggregates on hand sent by the fastest way to Vienna for repairing at the Arsenal.

The *Abteilung* asks that the 2 Ferdinand at Kummersdorf be released, so they can also be overhauled and have their form changed at the Ni-Werk or Arsenal.

The *Abteilung* requests the hydraulic Panzer requested by the Regiment as recovery vehicles."

Hitler had suggested a change in the designation of armored vehicles and other weapons to the OKH on November 29, 1943. His suggestions for naming were accepted and confirmed in an order of February 1, 1944, which was repeated on February 27, 1944. The new designation for the Ferdinand was "*Elefant für 8.8 c, Sturmgeschütz Porsche*." The change in designation took place by chance just when the overhauled and modified Ferdinands came back to the troops.

This makes the differentiation easier. The original vehicle was called "Ferdinand," the rebuilt one "*Elefant*."

### Action in Italy, 1944

After the rebuilding work, the 1st Company, Heavy *Panzerjäger Abteilung* 653 moved to Italy. It was supposed to reinforce the German forces that were trying to enclose the bridgehead near Nettuno formed by the Allies in February 1944.

The Company received eleven Ferdinand (three of the 14 vehicles remained at St. Valentin), two *Munitionspanzer* III, and one *Recovery Ferdinand*.

During their stay in Italy, the Company reported the following action strengths:

2/23/1944	no report	5/25/1944	no report
2/24/1944	2 Ferdinand	5/28/1944	5 Ferdinand
2/25/1944	2 Ferdinand	5/29/1944	5 Ferdinand
2/26/1944	2 Ferdinand	5/30/1944	5 Ferdinand
2/27/1944	8 Ferdinand	5/31/1944	2 Ferdinand
2/28/1944	8 Ferdinand	6/1/1944	2 Ferdinand
2/29/1944	11 Ferdinand	6/2/1944	3 Ferdinand
3/1/1944	10 Ferdinand	6/4/1944	no report
3/5/1944	6 Ferdinand	6/18/1944	1 Ferdinand
3/7/1944	6 Ferdinand (repairing)	6/20/1944	no report
3/10/1944	6 Ferdinand	6/21/1944	no report
3/15/1944	6 Ferdinand	6/22/1944	3 Ferdinand
3/20/1944	6 Ferdinand	6/25/1944	2 Ferdinand
3/25/1944	8 Ferdinand		
3/31/1944	9 Ferdinand		



After the rebuilding, the 1st Company of Heavy *Panzerjäger Abteilung* 653 moved to Italy with 11 *Elefant*. It was in action there in February and March 1944.



An *Elefant* of the 1<sup>st</sup> Company (Abteilung 653) in action against the Allies at the Anzio-Nettuno bridgehead in the spring of 1944.



A vehicle of the I/653, with the new commander's cupola easy to see, stands before the workshop in Rome in March 1944.

On June 26, 1944, the 1<sup>st</sup> Company was ordered to give up their repair unit at once to the rest of the *Abteilung*, which was still fighting under Army Group North Ukraine in Russia. The remaining two action ready *Elefant* were to stay in Italy, while the crews—without the vehicles—were transferred to the training camp at St. Pollen.

#### Action in the East, 1944

The rest of Heavy *Panzerjäger Abteilung 653*, consisting of the Staff, as well as the 2<sup>nd</sup> and 3<sup>rd</sup> Companies, was transferred to the eastern front at the beginning of April 1944. In addition to their 31 *Elefant*, the unit was equipped with three *Munitionspanzer III*, one *Bergpanther*, and two *Bergpanzer-Elefant*. Assigned to the 9<sup>th</sup> *Bergpanzer* Division "Hohenstaufen," which in turn belonged to the 1<sup>st</sup> *Panzer Army* in Army Group North Ukraine, the unit attacked Russian defensive positions on April 12, 1944, with little success. On April 17, 1944, the Heavy *Panzerjäger Abteilung 653*, with twelve *Elefant* still ready for service, was withdrawn.

The following strength reports show the fighting power of *s.Pz.Jg.Abt.653* in the summer of 1944:

Date	Ready	Repair
April 8	31	
April 17	12	
April 18	18	
April 21	20	
May 1	16	
May 11	21	14
May 21	27	
June 1	28	
June 11	28	3
June 21	23	
July 1	28	
July 11	33	6
July 18	33	
July 19	14	
July 20	14	
July 21	14	
July 22	12	
July 23	0	
August 1	0	12

The Russian major offensive against the Army Group North Ukraine on July 18, 1944, caused deep breaks at various places in the eastern front.



An *Elefant* with tactical number 102 (chassis no. 150040) was captured by the U.S. Army in Italy and shipped to Aberdeen, Maryland, for examination.



The rest of sPzJg.Abt. 653 was transferred to the eastern front at the beginning of April 1944. These two Elefant had sunk in soft ground up to their hulls before Tarnopol. The front vehicle was supplied with barrels of fuel.



An Elefant of the 3/653 is seen in action in Galicia in May 1944. Cleaning the barrel of the 8.8 cm cannon after every firing was required.



Recovering a stuck Elefant in Galicia, June-July 1944.

<b>Kriegsgliederung</b>																																																																																									
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<b>Bemerkung:</b> A) 1. Kompanie und 1. Werkstattzug befinden sich im Einsatz in Italien. B) Zum Ausgleich für 12 fehlende Lkw. sind 16 im Reserve u. 5 in Mautiere vorhanden.																																																																																									

For the front strength of Heavy Panzerjäger Abteilung 653 (Elefant) in the last months of the war, this war structure form shows the state as of June 1, 1944.

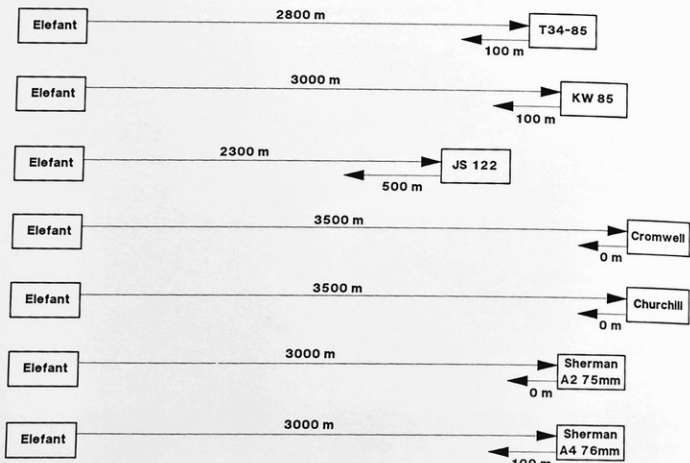
North of the action area of the 653<sup>rd</sup> Abteilung, the Soviets succeeded in a wide breakthrough on July 21, 1944, in which they encircled German units. Heavy Panzerjäger Abteilung 653 was used against the south flank of the Soviets. On July 2, 1944, they forced the breakthrough of the 6<sup>th</sup> Motorized Guard Corps to retreat. The s.Pz.Gr.Abt. 653 could save only 12 *Elefant*. On August 3, 1944, they finally moved to Krakau for refreshing and recovery.

Again, 14 *Elefant* were repaired. On September 19, 1944, they went to front units of the 17<sup>th</sup> Army (Army Group A). The vehicles

were assembled in a combat-ready company of S Pz Jg Abt. 653. They remained without losses in September and October 1944. Then, in October 1944 came the order to rearm Heavy Panzerjäger Abteilung 653 with Jagdtiger.

All combat-ready *Elefant* were again brought together in one company (Heavy Panzerjäger Company 614), which remained on the eastern front. This company was subordinate to the 4<sup>th</sup> Panzer Army of Army Group A. On December 5, 1944, the unit reported a combat strength of 13 *Elefant* (one more vehicle was being repaired); on 30 December they reported 14 combat ready *Elefant*.

Comparison *Elefant* versus Enemy Tanks



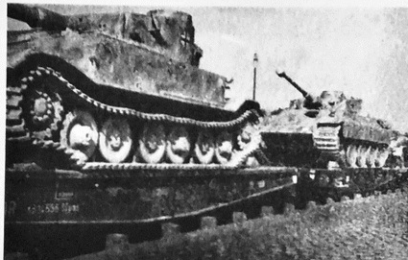
Note: Penetration figures are reckoned on front hits at 60-degree angle.



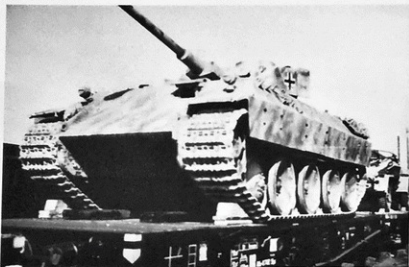
Noteworthy in this structure was the assigning of a few exotic vehicles, almost all of them one-offs. These vehicles were to be found in the Abteilung Staff, Gruppe Führer. This Tiger (P) (VK 4501(P)) was used as a command tank, its commander being Captain Hanns Wegelin. The tactical number was 003. The picture shows the front of the Tiger reinforced with added armor plates.



A good picture of the command tank shows the turret in the 6.00 position.



Here the Porsche Tiger is loaded on a SSyms car of the German Reichsbahn. On the next car is a Command Panther; the only one with Panzer IV turret.



The vehicle consisted of a Bergpanther hull, on which the turret of a Panzer IV tank was mounted.



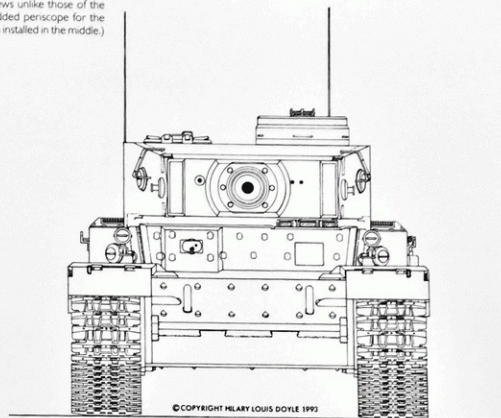
The unusual equipment included a 2 cm Flak quad on the chassis of a Russian T 34.

## Last Action 1945

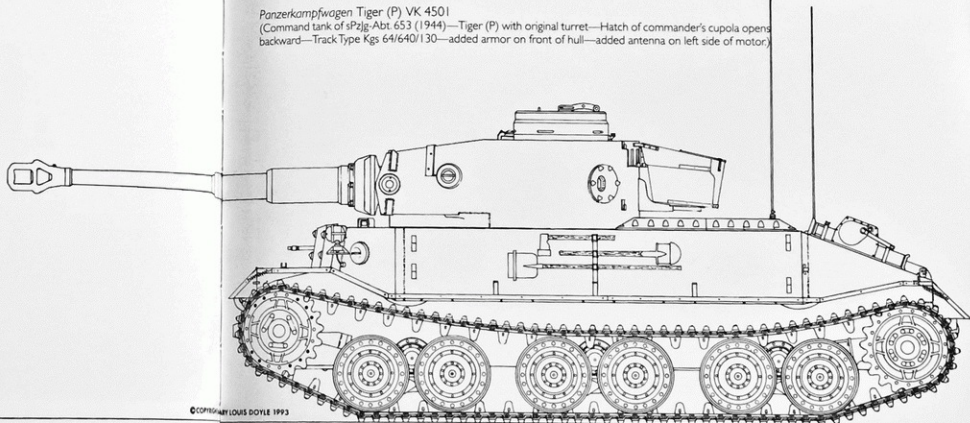
Around February 25, 1945, the Heavy *Panzerjäger* company 614 was in the Stansdorf area, west of Wunsdorf, after it had been pulled out of the front. At this time it still had four *Elefant*, some of which needed repairs.

The last action of s.Pz.Jg.Kp. 614 took place on April 22, 1945. The Company supported the Battle Group Ritter with four *“Elefant”* in the defense of the area around Zossen, south of Berlin.

Front view: (Added armor attached with screws unlike those of the Ferdinand—Driver's sight hatch movable—added periscope for the driver—asymmetrical turret shape with cannon installed in the middle.)



*Panzerkampfwagen Tiger (P) VK 4501*  
(Command tank of sPzJg-Abt. 653 (1944)—Tiger (P) with original turret—Hatch of commander's cupola opens backward—Track Type Kgs 64/640/130—added armor on front of hull—added antenna on left side of motor)



# Jagdtiger

## Development and Specific Features

The wish for an overly heavy *Jagdpanzer* came from the troops. They requested a "heavy assault gun with 12.8 cm cannon" to be able to support the infantry, and fight enemy tanks and unarmored targets at ranges up to 3000 meters.

The original concept for an overly heavy *Jagdpanzer* was expressed in a letter from the Army High command, Wa Prüf 4, to the Friedrich Krupp A.G., Artillery Design Department, Essen, on February 2, 1943, concerning the 12.8 cm Stu.K. on Tiger H3, set out as follows:

In reference to the conference on February 5, 1943, in Essen, there follow the development requirements for a 12.8 cm assault gun:

1. General  
On the basis of a discussion with the Reich Ministry for Armament and Ammunition, development of a 12.8 cm assault gun on Tiger H3 with motor moved forward is to be introduced. The Henschel & Sohn firm of Kassel is contracted for the development of the entire body.

2. Barrel and Breech, Brake and Recuperator  
It is required that these groups be taken over completely unchanged from the 12.8 cm KwK L/55 for Pz.Kpfw. "Maus." Very special value is placed on the use of the barrel without muzzle brake, as from now on the *Triebspiegel* shells can be fired only out of barrels without muzzle brakes for maximum armor performance.

3. Expiration apparatus  
The barrel expiration apparatus planned for the 12.8 cm KwK "Maus" must also be planned for Stu.K. from the start.

4. Mount with Targeting Machines.  
Simplest and most space saving design.  
Elevation field: -8 to +15 degrees. Traversing field: +/- 15 degrees Firing on elevation handwheel. Proved parts (especially electric) to be taken over from existing guns.

5. Targeting  
Targeting 37 for direct and indirect fire with Sfl.Z.F.5 and Rbl.F.36. Determination of divisions after checking types of shot.

6. Except for the electrics, no economical materials may be used.

7. The chosen device number is S-1209.

8. Wa Prüf 4 requests urgency level DE for development and production of the test devices.

9. It is requested that a design be presented by 3/10/1943, so that its further details can be discussed. Designer days can be requested from Wa Prüf 4.

On February 21, 1943, Krupp had already written the following further notes:

The s.Stu.G with 12.8 cm K is needed to support the infantry, and fight unarmored and armored targets up to 3000 meters. Strong weapon and good armor protection more important than speed. Good offroad capability, also in swamp and snow. Components from Panther or Tiger. Armor 200/100 above and below 50.

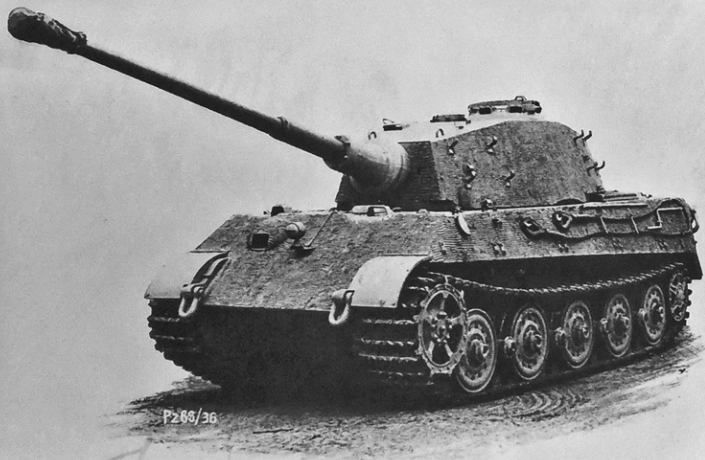
In the following memo on a discussion in Kassel on 3/22/1943: Mr. Aders replied on being asked that the Tiger II Assault Gun was designated as very important, and the Henschel firm had been given a corresponding design task. The end of June had been set as the date for the drawings. The rolling program to produce the armor plates should be given to the Krupp firm at the beginning of May.

The assault gun is to have 200 mm in front (perhaps 150), 100 mm on the sides, caliber 12.8, and weight, if possible, not over 70 tons.

In a discussion about the 12.8 cm *Panzerjäger* on Tiger H chassis (*Tigerjäger*) on 4/12/1943, it was determined and decided: The Henschel firm presented two designs for the 12.8 cm *Tigerjäger*.

### A. At first the design was promised with a rear engine.

1. The hull is 300 mm longer than normal.
2. Armor:  
The front armor of the hull with 40 degrees is planned for 150 mm. The front armor of the body with 60 degrees is to be reinforced to 200 mm.  
The side armor must be reduced from 100 to 80 mm.
  - a) The heavier armor is not usable for weight reasons. The fighting weight may in no case exceed 70 tons, because the Tiger H chassis will not allow that. Otherwise a fully new design of the running gear must be undertaken, and the previous uniformity with the tiger chassis must be given up.
  - b) A reduction of the fighting compartment by 40 mm comes about, since limiting to the railroad profile does not allow further building to the outside.
3. Because of the new separate ammunition to be introduced, the final form of the barrel was agreed on as of 4/14/1943. The separated ammunition can allow the gun mount and the body to be moved back by about 200 mm. Herby the center of gravity's position of the whole vehicle becomes somewhat more favorable.



Panzerkampfwagen Tiger Type H2 (Tiger II) (with loading tracks).



4. The spreading-out possibility limited by the railroad profile has a negative effect on elevation and traversing.

As for the possibility of lowering the gun from 8 degrees, it should be maintained if possible; on the other hand, to stay within the railroad profile, the traversing field can be limited 10 degrees on each side, since the possibility of turning with the entire vehicle is made significantly easier with the heterodyne steering gear. By lowering the driver's seat 100 mm, corresponding lowering of the roof plate over the driver, and taking the gun mount and gun armor back, the maintaining of the railroad profile will be striven for even at 8-degree lowering.

5. The gearbox cannot be taken out without removing it from the body and gun. Through the foreseen backward moving of the gun and body, it is probably possible to make the roof plate over the driver and radioman unscrawable, so that the removal of the gearbox is made possible, without the firmness of the hull being affected.

6. The question of outside securing of the barrel is still to be cleared up.

7. The final design of the barrel shall be assigned to the Henschel firm (Senior Engineer Aders) by the Krupp firm as quickly as possible.

#### **B. Then the design with the motor moved forward was discussed.**

With the exception of the easily answered question of the external barrel lashing, it shows no advantages over the first design (rear engine). In particular, the keeping of the railroad profile cannot be attained, since even with a limiting of the traversing field, the firing height of the gun cannot be limited, because the height of the motor when moved forward does not allow that.

Again, the following disadvantages result:

1. Moving the motor forward requires a complete redesigning of the hull and the hull installation. Here the keeping of the set limits is fully ruled out.
2. The motor can be removed only after the gun and the mount have been removed.
3. The cooling system must be designed anew and moved.

4. The motor, to make room for the cooling system, must be located in the middle. This brings about difficulties in the power transmission, to remove which a new intermediate gearing must be designed.

5. The question of ventilation and air removal, as well as the exhaust pattern, runs into difficulties, and is not made clear in this drawing.

#### **C. Summary**

The comparison of the submitted drawings shows that Design A (rear motor) allows the most far reaching uniformity with the Tiger tank, and is also most favorable in terms of time. Here, though, a barrel overhang of some three meters must be accepted.

Design B, to be sure, has the advantage of a barrel overhang of only 1.30 meters, but requires a wholly new design of the chassis, giving up uniformity of the running gear, and not holding to the railroad profile.

**D.** In addition, the question was raised of whether the chassis for the *Panzerjäger* Tiger in the contract given to date is number 1036 (176 + 350 + 510) examples. Clarity will come from Wa Prof 6.

In a report on May 5, 1943, the specifications for a 12.8 cm *Panzerjäger*, which was to weigh about 75 tons, were affirmed. A 12.8 cm cannon was seen as the primary weapon. The traversing field was set at 18 degrees each to right and left, the elevation range from -8 to +15 degrees. The Army Ordnance Office had chosen the chassis of the Tiger II tank. The power aggregates, designed for a top speed of 45 km/h, were the Maybach HL 230 motor (used for the Panther and Tiger), the seven-speed gearbox AK 7-200 from the Zahnradfabrik Friedrichshafen (from the Panther), and the double-radius steering drive L801 of the Henschel firm (from the Tiger II). Torsion bar suspension was planned, along with rubber saving road wheels. The armor thickness and the periscope positions on the hull were the same as on the Tiger II. The front plate of the body was to be 100 mm thick, the side and rear plates 80 mm. For the roof of the body, 30 mm plates were planned. The greatest length of the original design was ten meters, with a width of 3.59 and a height of 3.47 meters. The tracks—800 mm wide, with a ground contact of 4635 mm—gave an acceptable ground pressure of 1.01 kg/cm<sup>2</sup>.

At further discussions in Kassel on May 14, 1943, about the *Tiger-Jäger* (Tiger Type B), the following report from Senior Engineer Aders was signed.

1. The design for the complete body will be accepted after the results of the discussion in Berlin on 4/12/1943 have been included.

2. Henschel & Sohn raises the question of making a full size wooden model of the fighting compartment with body, gun, ball mantlet, and cartridge and shell storage. This is agreed on. A model of the gun section will be made by Krupp. Completion is seen for about 7/1/1943.

3. Work division into design, model, and finishing: Krupp works on the gun up to the cradle armor, including also a design of the armored cast steel cap; it will be developed by H & S. Vision slit (watertight for fording) is worked on by Krupp.

4. As for following up the recommendation by Wa Prof 6 III to mount the gun in a cross mount, it was at first rejected for several reasons, above all because work has to go fast, and no

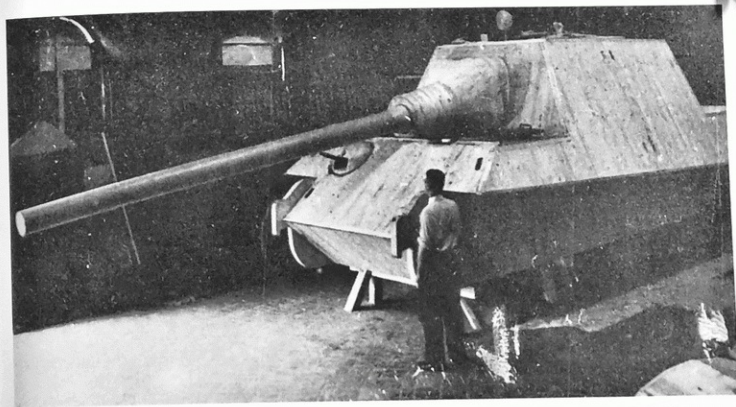
time remains for firing and shot testing, which would necessarily have to precede the beginning of series production as of the end of 1943.

5. The suggestion by H & S to separate the body from the hull is rejected, since the difficulties of a fire-secure and watertight connection seem all too great. For the difficulties arising from the high hull weight of some 34 tons when being worked on in the factories, a way out must certainly be sought.

6. The secure connection between the 200 mm front plate for the gun and the roof of the hull appears in the drawing to need improvement. It is to be attempted to move the cutout for gearbox removal as far forward as possible, so that at the back of the front plate a greater resistance moment against horizontal forces when firing develops.

7. The roof of the fighting compartment will be made removable.

8. In the rear wall of the body, a two-piece door with an aperture of about 700 by 600 mm is required for gun barrel removal, as an entry and exit hatch for the crew. For shell cartridge ejection, a special round opening is foreseen, of about 220 mm diameter.



On 4/12/1943, Henschel urged the building of a full-size wooden model. This model was shown to Hitler at Arys on 10/20/1943.

9. The standing position, or seat of the commander and the hatch over it, still need a special study because of the lack of space.

10. Holes with tapered plugs for defense with machine pistols are foreseen in the same numbers as in the Assault Gun on Tiger P1.

11. A discussion of the design details of the hull and body is scheduled for mid-June.

12. Wa Prüf 6 Pz II will give final decisions or plans on the following points:

- a. Machine-gun ball mantlet?
- b. Shear telescope (to be installed in the wooden model)
- c. Periscope in new two-piece and tipable form? It should allow observation of the road to 50 meters in front of the vehicle.
- d. Indirect firing is ruled out.
- e. Mine- and smoke-laying devices, which probably must be installed on the back wall of the body.
- f. Radio equipment.
- g. Compressor and tank for compressed air for inflation device. Location is to be studied. Ventilators to remove smoke are being eliminated.

13. The setting up of the gas-protection system in the fighting compartment can still cause difficulties in reference to the arrangement of the ball support in the mount. H & S will cooperate with Krupp on this point as soon as possible.

14. The gun lashing will be done at about 6 degrees of elevation, set in the fighting compartment. Notches in the floor for putting the lashing device down. Additional lashing outside the fighting compartment is to be studied.

15. It was determined: 10 degrees traversing to right and left, +15 and -7.5 degrees elevation.

16. Sealing the cradle armor can be done by coating with stretched bands or the like. Krupp will make suggestions.

17. Wa Prüf 6 Pz II receives copies of the entire drawing in 1:20 scale, which are to be finished and accompanied with data on the main measurements, the armor thickness, etc.

#### Addendum from H & S

a) The difficulties that arise from the hull weight of some 34 tons in the undivided version appear, after discussion with Director Pertuss, so meaningful that producing the hulls by H & S appears to be doubtful.

b) The maintaining of the railroad loading profile can still cause difficulties because of the meager space between the upper profile rim and the roof, as was also discussed. The H & S suggestion of taking off the road wheels after loading and setting the vehicle with its hull bottom on the car platform would lead to the necessity of spending a great deal of time (on the railroad car itself) before loading and unloading, needing several hours of work with winches and other apparatus. The work could be done, though, independently of the railroad car, and without influencing the loading and unloading times at all, be undertaken so that the road springs could be built displaced by a few notches, doing without the greater part of the ground clearance during the railroad journey, some 150-200-250 mm!

In another note on the discussion in Kassel on May 14, 1943, about the 12.8 mm Kanone L/55, it was reported vs Krupp as follows:

After Friedrich Krupp had handed in a design for the 12.8 cm L/55 Stuk on 4/28/1943, the Henschel firm submitted a new design, developed farther in terms of the vehicle. The gun is taken from the FK design. In view of the gearbox removal the pivot peg has been moved backward 120 mm. Instead of the originally planned deeper mounting of the vehicle's roof over the driver by 100 mm, Henschel has reached only 50 mm for constructional reasons; that means lowering the gun would be cut from 8 to 7.5 degrees. Elevation 15 degrees, traverse +/- 10 degrees. Gun weight about 5500 kg, cradle armor about 1000 kg.

For the further development of the device, consideration must be given to:

#### A. Gun

1. Gun mounting in the front wall, watertight.

2. Opening in the rear wall for removal of the gun barrel agreed on.

3. Send design for shaping the optic slit on the roof to Henschel. Aiming Device 37 with Targeting Scope Sfl.ZF5. Wa Prüf 6 hands in drawing of a targeting scope with a panel for three ballistic divisions with a request for investigation whether the optic can be used later. Indirect firing is expressly ruled out. Thus, the formerly somewhat complicated covering of the optic slit is eliminated.

4. Barrel lashing at about 6-degree elevation. Rack for gun barrel is to be foldable. Henschel will provide notches on the fighting compartment platform for attaching the lashing lever (folding position).

5. Cover for optic slit to be made watertight.

6. Design and detailed drawing of the cradle armor taken over by Krupp. But the cradle armor does not belong to the drawing by Krupp. The design and determination of dimensions for the cast cap attached to the front wall taken over by Krupp. The detailed drawing is taken over by Henschel, at the same time explaining the welded connection.

7. WaPrüf 4 will send Henschel the drawing for the compressor, including air tank, for the foreseen smoke ejector. The drive of the compressor should come from either the cardan shaft of the vehicle, or from a secondary shaft from the gearbox.

8. By the beginning of July Krupp will finish a wooden model of the gun, to be sent on to Henschel. The first finished gun will be needed in Kassel around the end of November.

#### B. Vehicle

The Henschel firm makes known:

1. Weight of the whole vehicle about 70 tons. Armored parts, hull with body, 43 tons. Front wall of the body 200 mm, side and rear walls 80 mm, and roof 40 mm thick. Six-man crew (two loaders).

2. Forty rounds of separated ammunition stored. On the wooden model it is to be determined whether a standing height of 1630 is enough. In that case, the planned ammunition storage under the platform must be moved. Standing height then 1840 mm.

3. To prevent CO<sub>2</sub> from entering the fighting compartment while fording, the vehicle is to be kept at slightly higher pressure inside (advantageous for smoke ejection).

4. Drawings for hull and body to be turned in to Wa Prüf 6 for discussion of the welded connection on 15 June. The first vehicle should be finished in December.

At the discussion in Kassel on May 14, 1943, there was also talk about the armor for the *Panzerjäger* on Tiger H2:

In the discussion, an overview drawing of the *Panzerjäger* was presented by the Henschel firm. The plate thicknesses can be found on the included sketch. The bases for the material orders have gone out in the meantime from Henschel to Krupp. A final date for sending in the drawings of the *Panzerjäger* could not be given. Mr. Aders said that the discussion of the armor joints with *Oberbaaurat* Rau should take place on June 16, 1943, and that the sending of the final drawings can probably be expected by 15 July. (This date depends on the extent of changes made by Mr. Rau.)

The question raised by the Henschel assembly shop, of whether it is possible to build the armored body divided—that is, with removable body—was declined because of the high manufacturing cost. The armored body is made in one piece. It weighs about 33 tons. (The front plates are 100, 150, and 200 mm thick, and the side and rear walls are 80 mm, the roof, floor, etc. 25, 40, and 50 mm.)

The vehicle shall use the same ball mantlets as the Tiger H2. Final drawings for making the forged parts are not yet on hand. The design will be carried out by Daimler-Benz.

Mr. Sawatzki said that the Henschel firm is not in agreement with the formerly planned dates for the beginning of *Panzerjäger* and Tiger H2. It was urged that the beginning of work on both devices should come later, and in about two months, on the same schedule as the Tiger H1. Before this change to the new type, the workshop could produce only one to two test models per month. To answer this question, a discussion with Mr. Saur is agreed on, which presumably will take place in the coming week. The Henschel firm asked that a cast iron hull of the Tiger H2 type be produced by the Krupp firm as soon as possible, whereby only the bare frame without installed parts or loose parts should be delivered by Krupp.

Henschel & Sohn GmbH, Kassel, requested in a letter to the Friedrich Krupp firm, Dept. A.K., on August 9, 1943, about the Tiger-Jäger:

"We want to use the body ventilator from the Tiger I turret in our Tiger-Jäger, and ask for a precise installation drawing with all details. In addition, we would like to have the dimensions of the necessary hole in the hull roof, so we can finish our hull drawings.

The targeting scope, attached to a console on the gun, slides into a slit on the hull roof. This slit must be closed with a 16 mm plate, which must move back and forth with the gun. We thought of making the movement of the protective plate similar to that of the Panther assault gun, and we lack the information as to where on the gun the moving point and the rod needed for it are located. The further movement and the plate itself will be developed by us."

On 28 September, further decisions were made by Colonel Crohn (Wa Prüf 6), Major Weiche (Inspector-General of the Armored Troops), and officers of both agencies after viewing the wooden model of the 12.8 cm Tiger-Jäger, as follows:

1. In 6 decides against aiming spotlights and firing ports for machine pistols.
2. The hatch for the gunner is eliminated.
3. The commander's hatch is to be turned 90 degrees and thus enlarged, so that getting in is possible in winter clothes. The periscopes are to be arranged as follows:

Right front near the commander, one scope.

Right and left rear for observation to the back, each one scope set diagonally so that the scopes overlap, and the rear end of the vehicle can be seen. At the left, at the loader's level, turnable and so angled that 5 to 6 meters in front of the vehicle can be observed.

4. The targeting is to be moved, in cooperation with the Krupp firm, so that with maximum traversing of the barrel to the right, the gunner can work unhindered.

5. The ammunition storage is to be changed so that in back, instead of cartridges, shells are stored standing. The cartridges in this space are to be stored in the former shell space and, if need be, in the space left for the gas filter. The shells stored in the gun carrier are to be kept in drawer-like containers, so their getting dirty will be avoided.

6. The rear entrance hatch is to be fitted with simple hinges. The arrangement of the hinges is to be checked again in cooperation with Wa Prüf 6. The attachment of torsion-bar suspension for weight equalization is to be worked out constructively soon.

7. The wooden model is to be made, with the decided on changes in mind, so that all movable parts, especially racks and sliding flaps for ammunition, can be tested practically on the wooden model. For this, the Henschel firm received six shells and six cartridges.

8. Wa Prüf 6 is taking care of developing the port that allows getting rid of the cartridge after firing.

Further decisive changes were the reinforcement of the upper front plate from 200 to 250 mm, and that of the body roof from 30 to 40 mm. The standard gearbox of the Tiger II was also chosen, a Maybach eight-speed OLVAR OG 40 1216B. The choice of this gearbox proved to be absolutely necessary, since the originally foreseen AK 7-200 gearbox was problematic for a 30-ton vehicle, and had already proven to be problematic in the 46-ton Panther.

The full-size wooden model of the "heavy Panzerjäger with 12.8 cm L/55 on Tiger II chassis" was shown to Hitler at the troop training camp at Arys, in East Prussia, on October 20, 1943.

Colonel Crohn, Wa Prüf 6, reported in a letter to the Friedrich Krupp AG, Dept. AK, on September 24, 1943, about improving the performance of the 12.8 cm Panzerjäger.

"The installation of a 12.8 cm Kanone L/70 in the Tiger B chassis with motor moved forward, according to Design I AFK 31 850, was tested, and it was decided that the disadvantages involved in the moving of the motor could not be taken in the bargain.

Therefore, it should be investigated whether, with the installation of a 12.8 cm cannon L/70 in a normal series production Tiger chassis, the barrel in firing position could be moved backward over the engine cover, and whether driving onto the battlefield with the gun in firing position was possible.

The use of separated ammunition (cartridge length 1130 mm) is foreseen.

The railroad profile must be preserved, even by major lowering."

Prompt sharing of the results of the investigation was asked. The Friedrich Krupp AG, Dept. AK, replied on October 30, 1943:

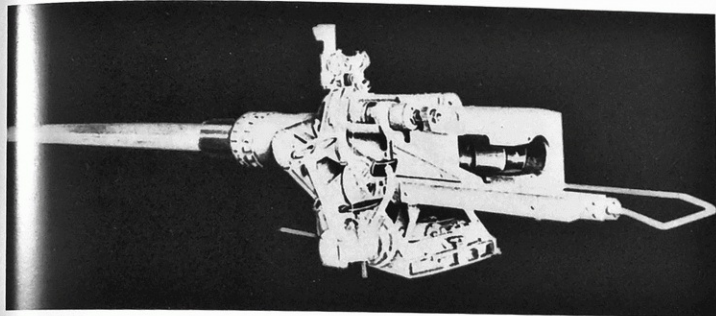
"In a discussion on October 21, 1943, we turned in a drawing I AKF 31 870, installation of a 12.8 cm gun in a Tiger B vehicle. The foreseen 12.8 cm L 70 barrel agrees in its breech measurements and jacketed barrel diameter with the 12.8 cm L/55 barrel. It is thus possible to install this gun in the unchanged mount, and thus also in the unchanged vehicle of the production 12.8 cm Panzerjäger. Since the center of gravity of the long barrel is fairly far forward, the device becomes nose-heavy, so that between the mount and the cradle at the place indicated in the drawing an air equalizer must be

attached. The overhang of the barrel over the front end of the vehicle is about 4.9 meters. In a 6-degree lashing position, the muzzle would still be within the loading profile. A cartridge length of 900 mm was considered, agreeing with the 12.8 cm L/55 gun.

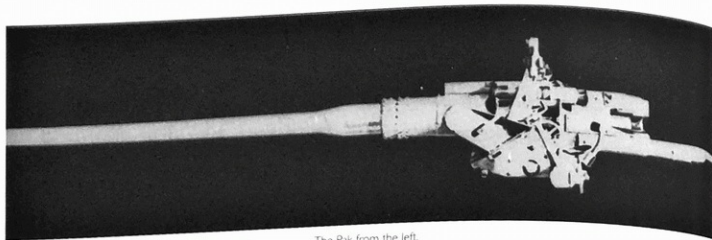
In order to avoid the disadvantage of a barrel projecting far over the front end of the vehicle on the march, we have included in the drawing, as an alternative solution, a design which portrays a barrel pulled far back over the engine cover. In this solution, the barrel would project only about two meters beyond the vehicle's front end. The installation in the unchanged vehicle, though, would not be possible without other measures. The barrel pulled back over the engine cover would have to be fitted with a special protective jacket, or the vehicle's body would have to be extended to the rear edge of the vehicle, as indicated by dotted lines. A certain increase in weight is accepted in the bargain. Since the gun barrel is offset and pulled back 2250 mm, the barrel diameter before the cradle armor must be artificially lengthened. Thus, sliding surface is to be protected by a jacketing from dirt and splinters. Also, a special track drive and a special clutch design would be needed between the gun barrel on the one hand and the brake and recuperator on the other.

As agreed, we will continue to consult with the Henschel firm about details of the vehicle, and await them to take their position."

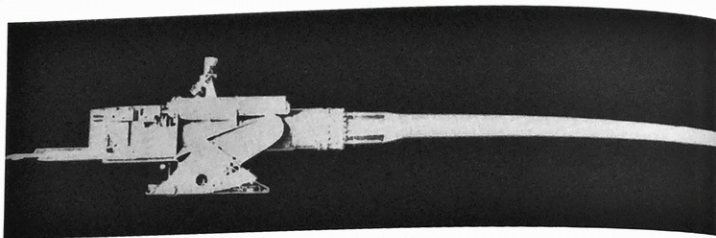
The longer 12.8 cm Pak was not seriously followed up for the Jagdtiger. As originally decided by Wa Prüf 4, the 12.8 cm Pak 44 was mounted in the Jagdtiger.



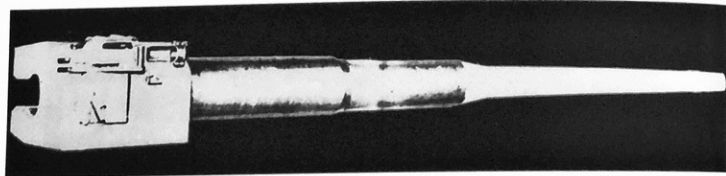
While the installation of a 12.8 cm L/70 gun was considered, it was decided to use the 12.8 cm L/55 gun, designated 12.8 cm Pak 44, originally planned for the Maus tank. The picture shows the gun from the left rear.



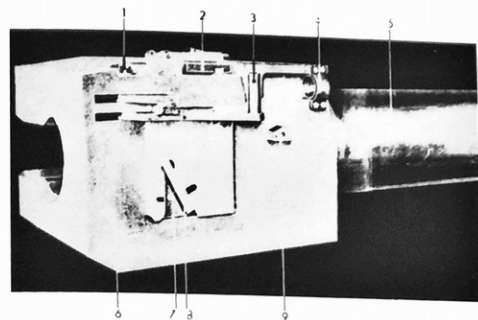
The Pak from the left.



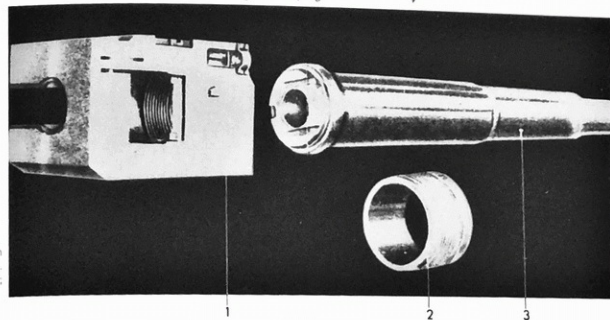
The Pak from the right.



The complete barrel.

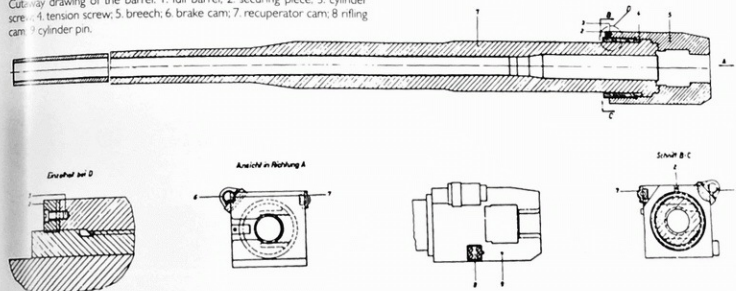


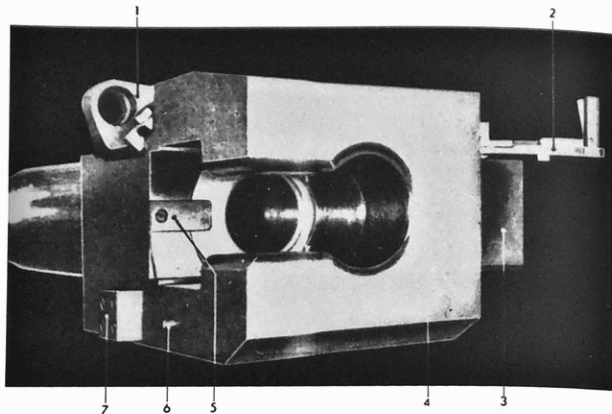
The breech: 1. turning bolt; 2. ejector lever; 3. opening crank; 4. recuperator cam; 5. full barrel; 6. breech; 7. locking bolt; 8. electric line; 9. emergency lever.



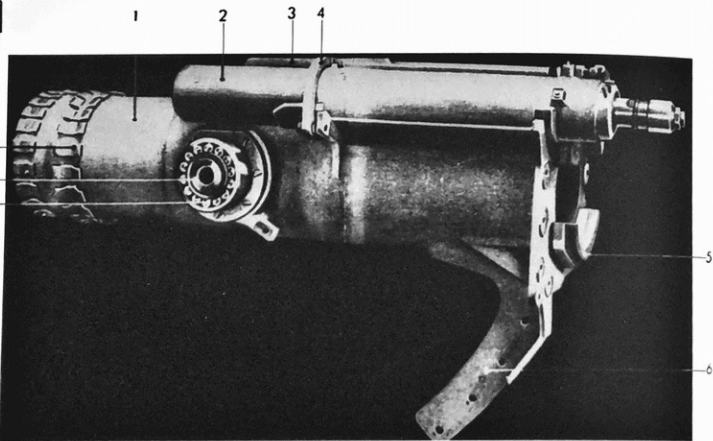
The barrel with breech and tension screw: 1. breech; 2. tension screw; 3. full barrel.

Cutaway drawing of the barrel: 1. full barrel; 2. securing piece; 3. cylinder screw; 4. tension screw; 5. breech; 6. brake cam; 7. recuperator cam; 8. rifling cam; 9. cylinder pin.

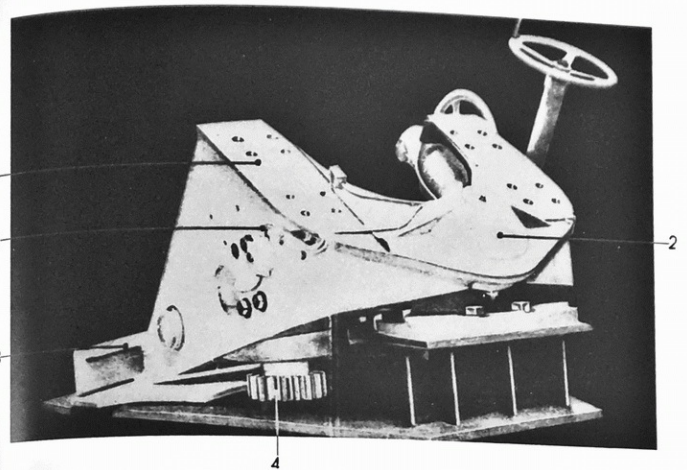




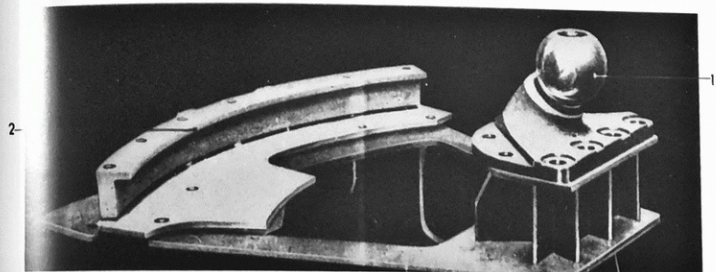
The breech, opened from the left rear: 1. brake cam; 2. opening crank; 3. breech wedge; 4. breech; 5. sliding spring; 6. cylinder pin; 7. rifling cam.



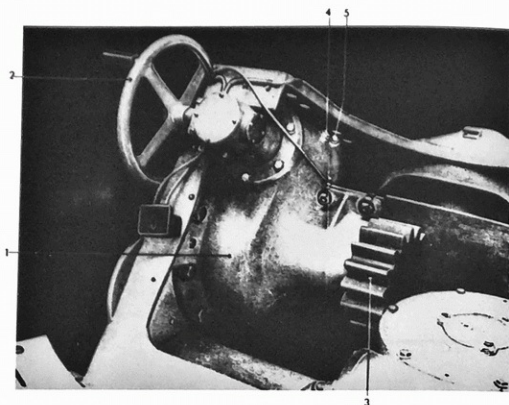
The barrel cradle: 1. cradle; 2. barrel brake; 3. pneumatic recuperator; 4. ring; 5. buffer; 6. holder for toothed arc of the elevating machine; 7. cylinder bearing; 8. shield pin; 9. bow.



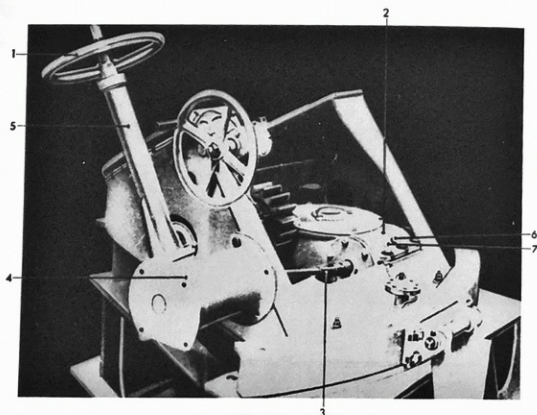
Upper mount with ball pin and traversing rail from left front: 1. mount; 2. ball (welded part), pin (welded part); 3. traversing rail (welded part), prion shaft with pin; 5. armor guide.



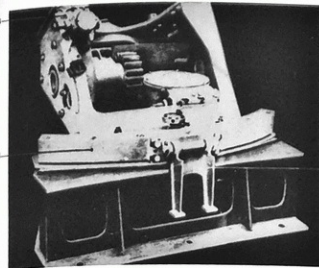
Ball pin and traversing rail: 1. ball (welded), pin (welded), bearing; 2. traversing rails (welded).



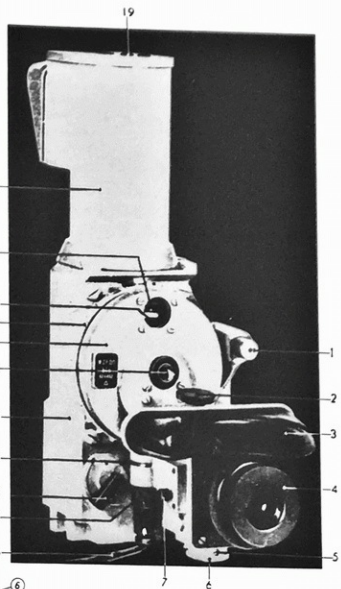
Elevating machine. 1. housing; 2. elevating handwheel, 3. pinion; 4. six-headed screw with pin; 5. brech screw with washer.



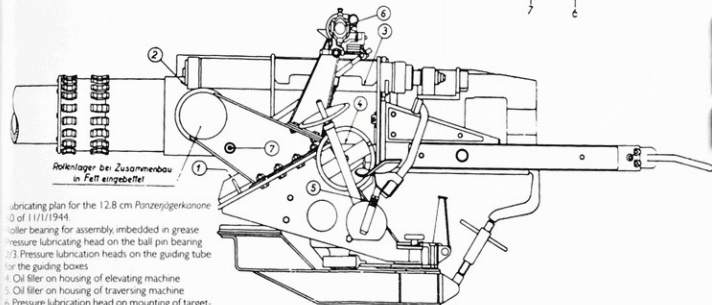
Traversing machine. 1. Traversing handwheel; 2. housing; 3. geared wheel; flexible shaft; 5. cover; 6. brech screw with washer; 7. six-headed screw with pin.



Traversing rail with lashing support. 1. traversing ring; 2. barrel lashing block and trap; 3. armor guide.



Angled periscope 2/1, viewer side. 1. mounting pin; 2. holding screw; 3. forehead support; 4. eyepiece; 5. securing screw; 6. setting panel for traversing; 7. button; 8. electric plug; 9. screw-in lamp; 10. switching lever; 11. blind cover; 12. lower part; 13. triangle screw; 14. lid; 15. setting ring; 16. reading window; 17. reading mark; 18. upper part; 19. drying cartridge in upper part.



Lubrication plan for the 12.8 cm Panzerjägerkanone  
 of 11/11/1944.  
 1. roller bearing for assembly imbedded in grease  
 2. pressure lubricating head on the ball pin bearing  
 3. Pressure lubrication heads on the guiding tube  
 or the guiding boxes  
 4. Oil filler on housing of elevating machine  
 5. Oil filler on housing of traversing machine  
 6. Pressure lubrication head on mounting of target  
 ring device  
 7. impact oiler

Here are the measurements, weights, and performance figures for the 12.8 cm *Panzerjägerkanone* 80.

<b>Barrel</b>	
Caliber	12.8 cm
Barrel length	7020 mm
Barrel length in calibers	55 cal.
Distance from breech surface to attachment of forward wedge-hole surface	400 mm
Length of the bore	6610 mm
Length of rifled part	5533 mm
Length of rifled part in calibers	43 cal.

<b>Riflings</b>	
Number	40
Depth	1.7 mm
Width	6.05+0.6 mm
Field width	4.0-0.6 mm

<b>Loading Chamber</b>	
Diameter of rear wedge part, back	176.4+0.2 mm
	front

162.8+0.2 mm	
Diameter of front wedge part, back	162.8+0.2 mm
	front

133.4+0.2 mm	
Length of loading chamber	1077 mm
Volume of loading chamber	2.88 liters
Pitch, constant (27 caliber)	6 deg 38 min 13 sec
Center of gravity from rear end of barrel with breech lock	1830 mm
Without breech lock	1920 mm

<b>Mount Dimensions</b>	
Elevation field	+15 to -7 degrees
Traversing field to right & left	10 degrees each
Firing height	2150 mm

<b>Barrel Brake</b>	
Median braking power	ca. 33,000 kg
Fluid contents	12.25 liters

Recoil length, normal	870 mm
Barrel length, maximum, "firing pause" 900 mm	

<b>Pneumatic Recuperator</b>	
Initial air tension	50 kg/cm
Fluid contents	11.6 liters

<b>Angled Periscope 2/1</b>	
Setting range for 12.8 cm PgGr 43	0 to 4000 meters
Setting range for 12.8 cm SprGr L/5.0	0 to 8000 meters
Line intervals	0 to 176 lines

<b>Weights</b>	
Barrel, complete with breech	3300 kg
Full barrel	2200 kg
Breech without lock	810 kg
Tension screw	84 kg
Locking wedge with inside parts	192 kg
Pneumatic recuperator	121 kg
Barrel brake	121 kg
Total weight of gun	7000 kg
Weight including vehicle	74,000 kg

<b>Performance Figures</b>		
Shot types	12.8 cm	12.8 cm
	Pz Gr 43	Spr Gr L/50
Shot length mm	496.5	623
Shot weight kg	28.3	28.0
Explosive charge kg	0.55	36.0
Muzzle velocity m/sec	920	750
Maximum range m	12,200	
At 15-degree elevation		
Muzzle weight mt	1270	800
Design gas pressure kg/cm <sup>2</sup>	3700	3700
Usual gas pressure kg/cm <sup>2</sup>	3000	2500
Burning chamber length mm	967.5	967.5
Burning chamber volume l	20.4	20.4
Charge weight kg	15.0	12.2
Casing weight kg	11.6	11.6
Length of casing mm	870	870
Casing rim diameter mm	192	192
Casing contents l	18.24	18.24

### Measurements

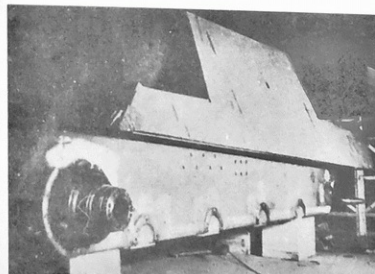
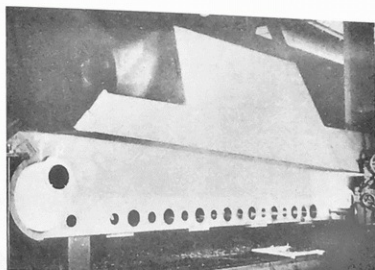
Gun without vehicle	8000 mm
Greatest length	1600 mm
Greatest width	1390 mm
Greatest height	
Vehicle with gun	10,500 mm
Greatest length	3270 mm
Greatest height	2945 mm
Barrel overhangs front end of vehicle by	3050 mm
Weight of loaded ammunition	
12.8 cm Pz Gr 43	
Shell with packing	31.8 kg
Cartridge with packing	36.6 kg
12.8 cm Spr Gr L/50	
Shell with packing	31.5 kg
Cartridge with packing	33.8 kg

The 12.8 cm Pak 1944 (later renamed 12.8 cm *Panzerjägerkanone* 80) was an armor piercing weapon. The gun fired armor piercing and explosive shells in separate form. The breech was a shearing-handle flat-wedge type, which opened to

the right and was operated by hand. The electric firing was on the left side of the upper mount by the handwheel for the elevating machine.

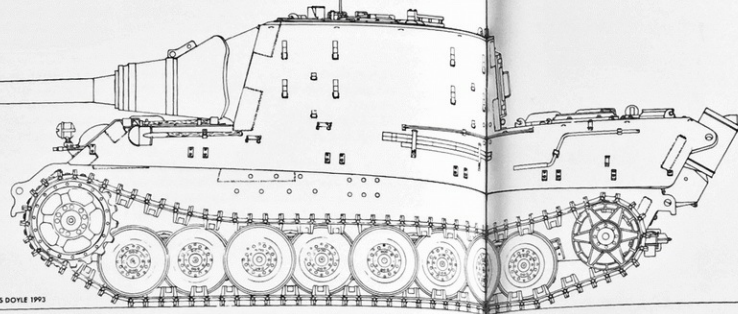
For direct aiming, the *Winkelzielfernrohr 2/1* was used. Indirect firing was not planned.

By January 1944, Professor Dr.-Ing. h.c. Ferdinand Porsche convinced Hitler of his idea of a simplified running gear for the Tiger II. The design showed road wheels in pairs on wheel trucks, suspended from longitudinal 1075 mm long torsion bars. This design was similar to the layout of the Ferdinand *Jagdpanzer*, and had been proposed before by Porsche for his VK 4501 design, the Porsche Tiger. Since all four road wheels on each side were screwed to the outside of the hull with only nine screws, these wheel trucks could be exchanged without difficulty in case of damage. Compared to the Henschel design, with its transverse torsion bars and overlapping road wheels, this was significant progress. Porsche's suggestion promised a weight decrease of 1200 kg, the saving of 450 hours of work time, a square meter more space inside the vehicle, 100 mm more ground clearance, and savings of RM 404,000 by shortening the production time. These advantages could not simply be ignored, and the order was given to accept the Porsche running gear in the production.



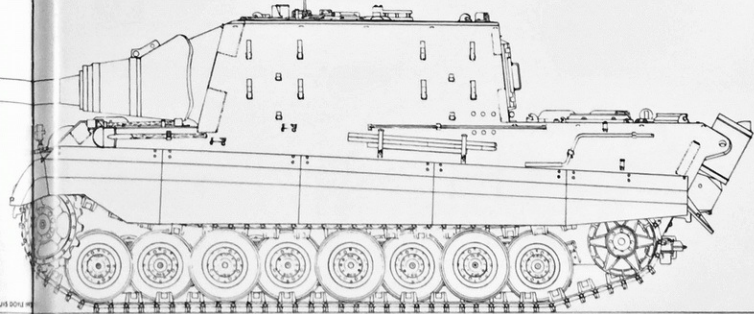
The Porsche firm, as opposed to Henschel, presented a suggestion for the running gear of the *Jagdiger* for debate, which promised considerable savings in material and work compared to the Henschel design. The upper picture shows the Henschel type with a multitude of exact holes to take the transverse torsion bars. At right is the Porsche solution, with attachment points for screwing on the wheel trucks with longitudinal torsion bars. There were, though, only ten *Jagdiger* built with the Porsche running gear.

Jagdtdiger (Porsche running gear)  
(Chassis no. 305004)  
(Compared to the Tiger II tank, lengthened hull—roof of driver's area lowered to allow greater gun elevation—storage on left side includes 50 mm diameter towing cable)



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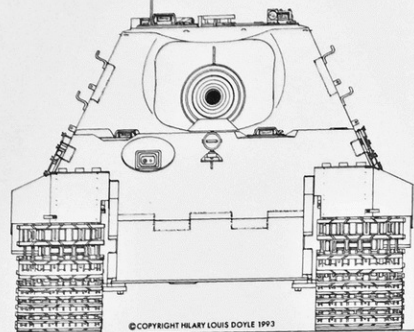
The vehicle shown above, with side skirting plates.



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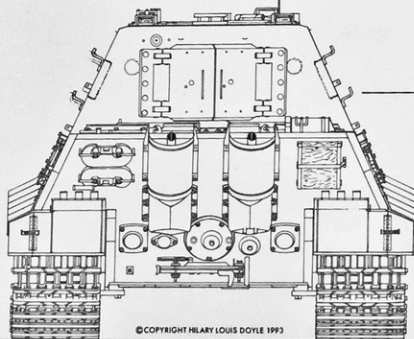


Front view (Tracks, Type Gg 24/800/8300—decreased headroom for driver)

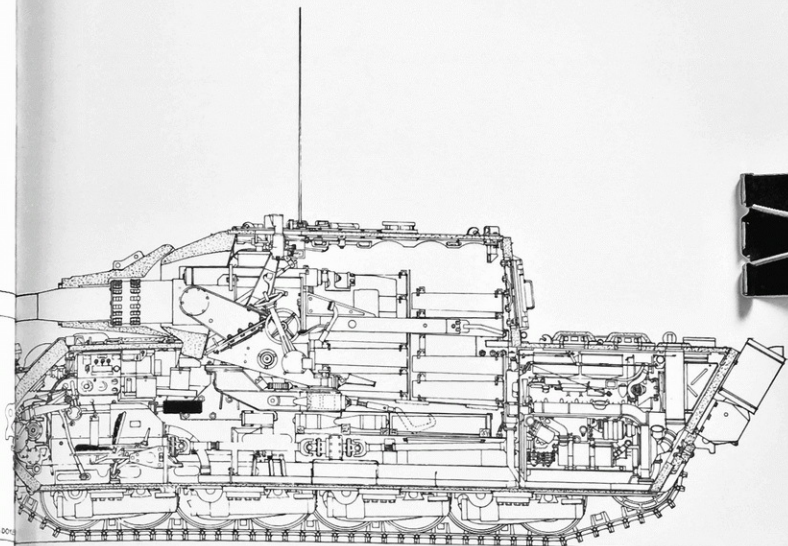


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Rear view: Sheet-metal cover for exhaust pipes



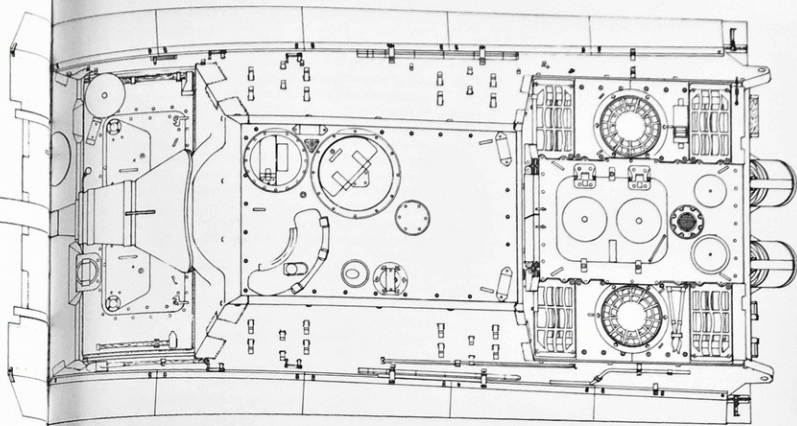
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Cutaway side view: (Ready for action: longitudinal torsion-bar suspension of the road wheels—separated ammunition stored on the fighting compartment walls and under the floor in the rear part of the fighting compartment, as well as under the gun mount—Maybach HL 230 P 45 motor—Driver's seat height adjustable)

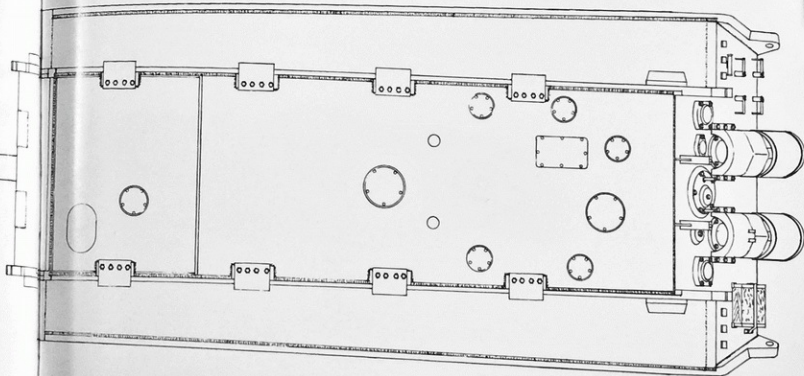
Top view: (The large cover in the roof of the fighting compartment was originally to be turnable, but was installed rigidly).

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View from below (for better overview without running-gear components):  
(Added armor on front wall of hull—(Emergency exit hatch in floor at right front)

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## Development of Designations for the Jagdtiger

s.StuG mit 12.8 cm K Wa Prüf	2/21/1943
<b>12.8 cm Stu.K. auf Tiger H3</b> WaPrüf 6	2/22/1943
<b>Tiger II—Sturmgeschütz</b> Henschel & Sohn	3/22/1943
12.8 cm Pz. Jäger auf Fahrgestell Tiger H ( <i>Tigerjäger</i> )	
Wa Prüf	4/12/1943
Stu.Gesch. auf Tiger-Fahrzeug Ausführung B (früher Stu.G.H7)	
Henschel & Sohn	4/13/1943
<b>Tiger-Jäger (Tiger-Ausführung B)</b> and <b>Panzerjäger auf Tiger H2</b>	
Henschel & Sohn and Krupp	5/14/1943
<b>12.8 cm Panzerjäger</b> Wa Prüf	5/5/1943
<b>Panzerjäger</b> auf Fgst. Tiger II (mit 12.8 cm Pak43 L/55)	
"Overview of the Army's Armament State" Chief H. Rüst u.	
BdE/Stab Rüst III	7/15/1943 to 8/15/1943
The Führer had decided that the <b>Sturmgeschütz: 12.8 cm Kanone auf Fahrgestell Tiger</b> should be designated " <b>Sturmgeschütz</b> " and not Pak Sf.	
GenStdH/Org. Abt.	8/21/1943
<b>12.8 cm Pz.Jäg.44 (L/55) Tiger B</b>	
State of Development, chief H. Rüst u. BdE/Wa Prüf	9/15/1943
s.s.Pz.Jäger auf Fgst.Tiger II (mit 12.8 cm Pak43 L/55)	
"Overview" as above	9/15/1943 to 10/15/1943
<b>12.8 cm Pz.Jäger</b> WaA, Wa Prüf 6	9/24/1943 and 10/30/1943
<b>schwerer Panzerjäger mit 12.8 cm L/55 auf Tiger II</b>	
Führer's conference	9/30/1943
<b>12.8 cm Tiger-Jäger</b> WaA, Wa Prüf 6	10/2/1943
<b>Panzerjäger "Tiger"</b> für 12.8 cm Pak44 (St.) (Sd.Kfz.186)	
O.K.H. 9/Chef H. Rüst u. BdE) In 6	October 1943

s.s. <b>Panzerjäger</b> auf Fgst. Tiger II (mit 12.8 cm Pak44 L/55)	
"Overview" as above	11/15/1943 to 2/15/1944
s.s. <b>Panzerjäger</b> (Fahrgestell Tiger)	
Chief H. Rüst u. BdE, Wa. Abn.	1/2/1944 to 9/6/1944
Evocative name <b>Jagdtiger</b> for s.Pz.Jg. auf Fgst. Tiger	
GenStdH/Org.Abt.	2/27/1944
<b>Pz.Jg.VI</b> Gen.Insp.d.Pz.Tr.Akten	3/4/1944
<b>Jagdtiger</b> (12.8 cm Pak44 L/55 auf Fgst. Tiger II)	
"Overview" as above	3/15/1944 to 10/15/1944
<b>Jagd-Tiger 12.8 cm Pak44 L/55 auf Fgst. Tiger II</b>	
GenStdH/General der Artillerie War diary	4/8/1944
s.Pz.Jäger VI 12.8 cm Pak44 L/55 " <b>Jagdtiger</b> "	
Wa Prüf 6	5/1/1944
<b>Pz.Jg.Tiger II</b> Gen.Insp.d.Pz.Tr.Akten	6/26/1944
s.s. <b>Panzerjäger mit 12.8 cm Pak L/55 auf Fgst. Tiger II</b> as " <b>Jagdtiger</b> "	
Chief GenStdH/Org.Abt./Gen.Insp.d.Pz.Tr.	9/8/1944
9/11/1944	
Chief GenStdH/Org. Abt./Gen.Insp.d.Pz.Tr	
Name among the troops: <b>Jagdtiger</b>	
Name in specifications: <b>Jagdtiger Ausf.</b>	
<b>Jagdtiger</b> Gen.Insp.d.Pz.Tr.Akten	10/19/1944 to 4/6/1945
<b>12.8 cm Pz.Jäger-Tiger II</b> Armament List	Nov. 1944
<b>12.8 cm Pz.Jäg.K.80 in Jagdtiger</b> D1884	11/1/1944
<b>Jagdtiger, Panzerjäger Tiger</b> (m.c.12.8 cm Pak80 L/55) (Sd.Kfz. 186)	
"Overview" as above	11/15/1944 to 3/15/1945
<b>Pz.Jg.Tiger Manual</b>	11/28/1944
<b>Jagdtiger</b> (Porsche Laufwerk)	
Gen.Insp.d.Pz.Tr.Akten	2/25/1945

## Testing and Changes

The first *Jagdtiger* was to be finished in December 1943 at Steyr-Daimler-Puch, Werk Nibelungen GmbH, in St. Valentin, Austria. Just at that time, though, the Nibelungenwerk has been ordered to increase its production of *Panzerkampfwagen* IV drastically, so as to reach a production goal of 300 per month. This and other problems delayed the start of *Jagdtiger* production. The Ordnance Office reported the production of the first two *Jagdtiger* in February 1944. The first vehicle (chassis number 305001) was built with the Porsche running gear with eight road wheels per side (700 mm diameter), while the second vehicle (chassis no. 305002) used the Henschel running gear with nine road wheels (800 mm diameter) per side. Both vehicles were accepted by the Army Ordnance Office, in order to carry out extended testing and comparison testing.

During the running gear testing, which was carried out beginning on May 5, 1944, it became obvious that the Porsche running gear could not provide the prescribed performance. Both *Jagdtiger* were equipped with the two-part, 800 mm wide tracks, Type Gg 24/800/300. The diagram of the spring-graph lines showed an evenly running shaft line, while the Porsche running gear showed an almost unbearable acceleration of the nodding movement. Attempts were made to present the 300 mm track division as the cause of this problem, and thus equipped the *Jagdtiger* (chassis no. 305004) with the Type Kgs 62/640/130 tracks of the Ferdinand *Jagdpanzer*. The ensuing tests showed the same unacceptable shaking of the suspension, which lasted until the Porsche running gear attained a speed of 14 to 15 km/h on a flat road. As a result of these tests, the decision was made to continue the production of the *Jagdtiger* only with the Henschel running gear.



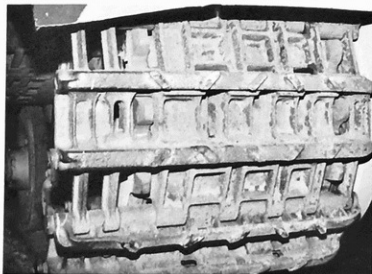
The first two *Jagdtiger* were finished in February 1944. The first vehicle (chassis no. 305001) was built with the Porsche running gear of eight road wheels (700 mm diameter) on each side.



The second vehicle, which was produced at the same time (chassis no. 305002) had the Henschel running gear with nine road wheels (600 mm diameter) on each side.



Both vehicles were tested thoroughly by the Army Ordnance Office, beginning on May 5, 1944. The Porsche running gear could not provide the required performance. Both vehicles were just painted. Zimmer was not yet applied. The racks for tools and equipment were also missing.



The problems with the Porsche running gear were originally ascribed to the Type Gg 24/800/300 tracks.

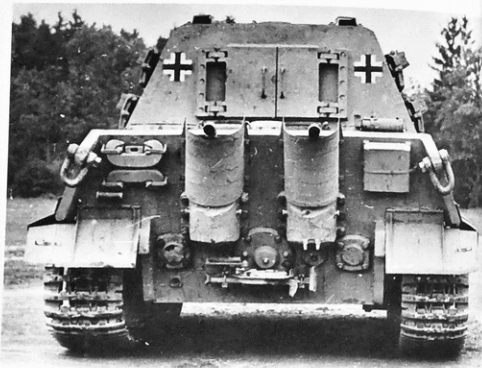


In the course of these tests, the *Jagdtriger* (chassis no. 305003) with Porsche running gear was fitted with Type Kps 64/640/130 tracks from the Eifelort. They did not help. The pictures show both sides, fully equipped, with spare track links on the sides of the fighting compartment. This vehicle was turned over to the Panzertruppen School in Mieland. It was the school's first *Jagdtriger*.





A front view of the vehicle, seen from above. The driver's hatch is open. The paint is dark yellow, with RAL shade 7028. The "Zimmerit" coating was applied only as high up as a man could reach.



The rear view shows the shields around the exhaust pipes, to make the glowing of these pipes unseen.

The Eisenwerke Oberdonau in Linz, Austria, which manufactured the armored hulls, followed this order in May 1944, but also used it as an excuse for reducing hull construction in May and June 1944. The Nibelungenwerk had to change its production setup to be able to take on the production of the Henschel running gear, and in the meantime they finished ten *Jagdpanzer* with the Porsche running gear, before switching to the Henschel running gear in September 1944.

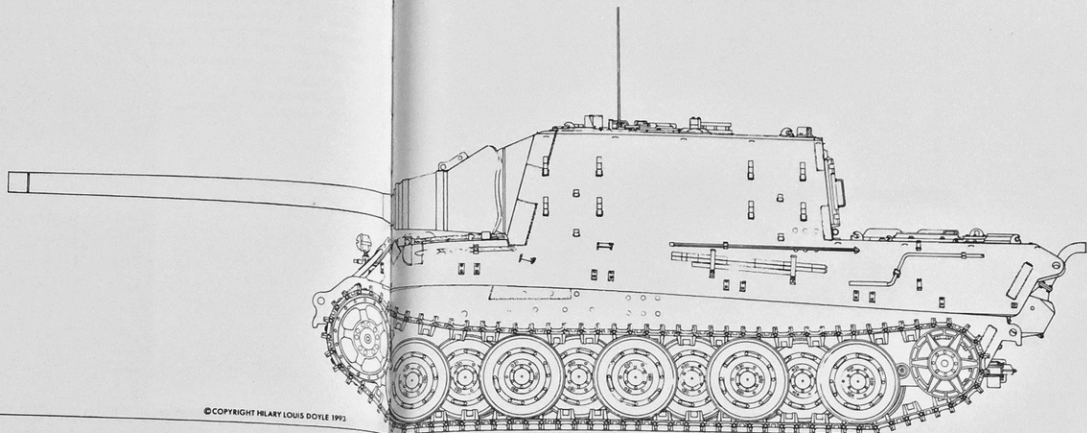
In a discussion (Wa Prüf 6 and Nibelungenwerk) about the *Jagdiger* on July 31, 1944, the following changes were discussed thoroughly:

1. The Device no. 305005, whose front body is not of full value in putting materials together, will be used, in agreement with In 6, only as a homeland device. It is to be marked accordingly.
2. The Ni-Werk pointed out that the cast front walls of the body were delivered imprecise, beyond the allowable tolerances. To allow the installation of the gun, up to 40 mm of wall thickness had to be machined off the inside of the wall. In the same way, the cradle armor had to be cut down in front in order to attain the necessary lowering of the gun. The cradle armor, because of the excess dimensioning of the front wall, had to be moved farther forward, and thus its front edge struck the upper edge of the lower wall. To avoid oversize reworking, Wa Prüf 6 agreed to accept these devices with a 6.5% lowering of the gun. In the interest of the troops, though, this absolutely had to be stopped.



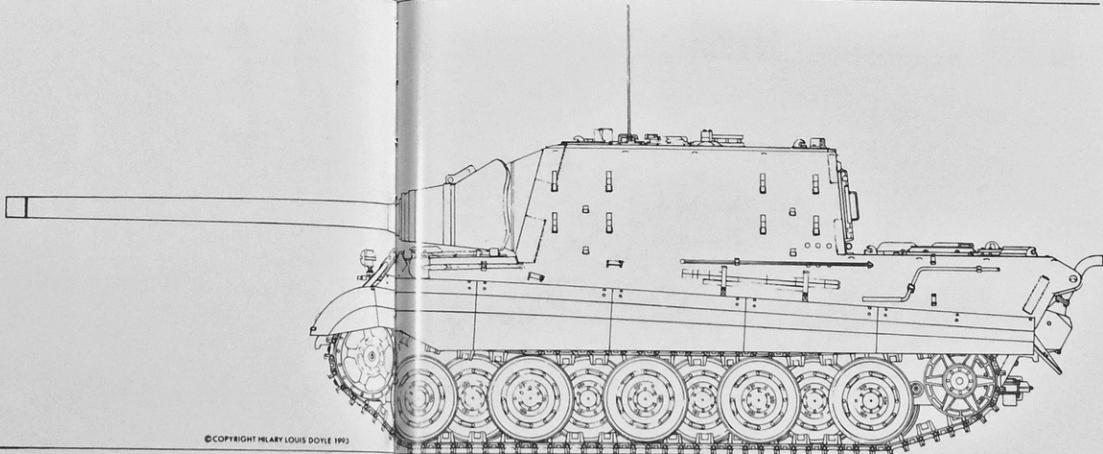
These two pictures show details of the new tracks (Type Kf 73/880/152) that were to be introduced toward the war's end for the Tiger II and *Jagdiger*. For these tracks, the old drive wheels with 18 teeth had to be used.

Jagdtriger (Henschel running gear)  
(Chassis no. 305020)  
(Changes cast armor piece on the front of the fighting compartment—changed arrangement of hanging spare track links on both sides of the fighting compartment—shields around the exhaust pipes eliminated)



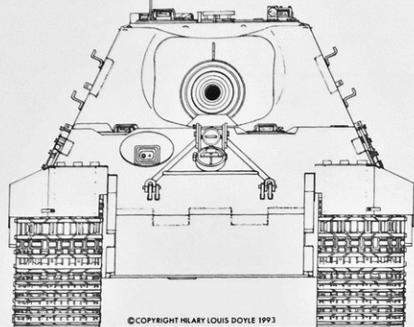
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The vehicle above with skirting plates.



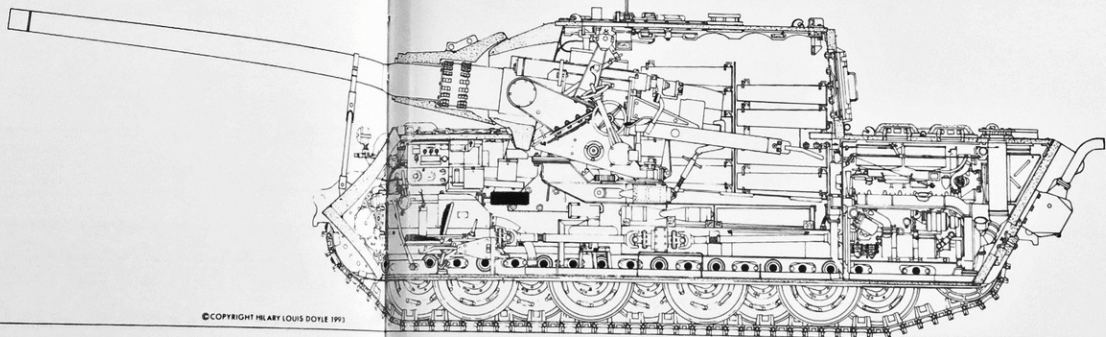
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Front view (New double-link type of marching tracks—changed attachment points for the rain waning on the roof of the fighting compartment)



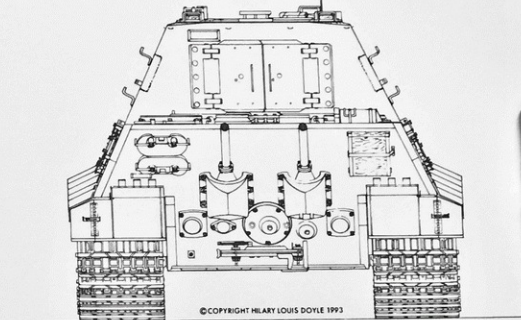
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Side view (Vehicle in marching trim—cannon lashed in brackets—periscopes packed away—transverse torsion-bar suspension)



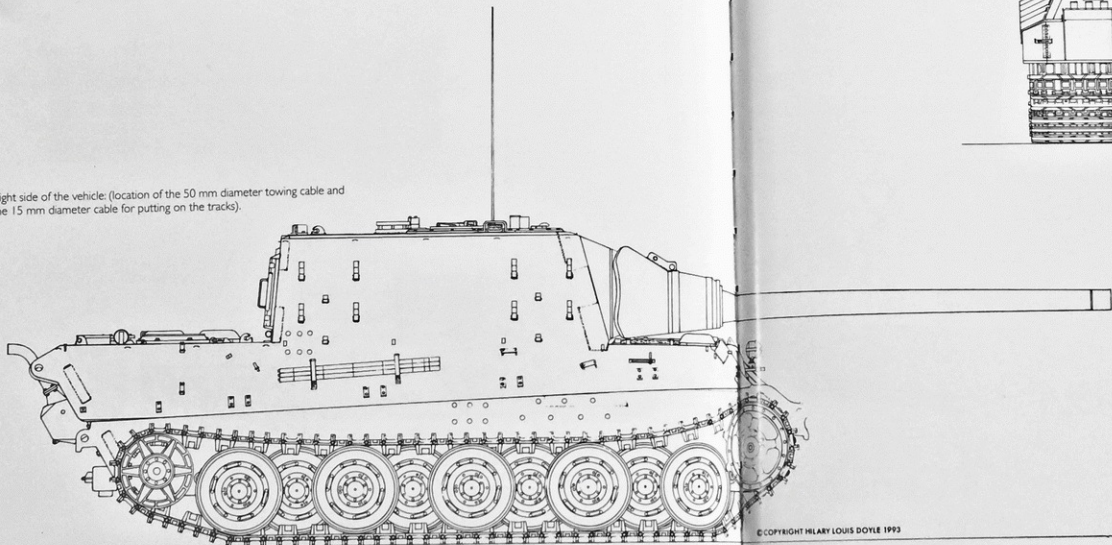
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Rear view. (Upper corners of the fighting compartment armor removed to improve periscope view—coverings on the openings for antennae)



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Right side of the vehicle. (location of the 50 mm diameter towing cable and the 15 mm diameter cable for putting on the tracks).



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3. At the farthest traversing of the gun to the right, the housing of the elevation machine hits the gun bridge, causing a traversing loss of about half a degree. The change is caused by the Ni-Werk at the Krupp firm. For the finished guns, the error is accepted.

4. The arrangement of the barrel brace sent by the Henschel firm does not meet the requirements of the troops, and is therefore rejected. Until final regulation, the devices will be equipped with the barrel braces with folding upper part, developed by the Nibelungenwerk.

5. To be able to test the rigidity of the gun bridge, it was decided to urge Wa Prüf 4 and the Krupp firm to undertake firing the gun at Krupp with the gun bridge delivered there by the Ni-Werk.

6. The racks of the standing shells do not meet the requirements in every way. Changes as discussed at the Nibelungenwerk on 31 July.

7. To guarantee the uniformity of the devices and use up the parts already made by the Ni-Werk, the inner furnishing will be carried out at first in the earlier form developed by the Ni-Werk. The parts developed by the Henschel firm can be used only at a later time, when it appears necessary in terms of space formation and utility.

8. Because of the narrow space conditions for the gunner, it can only be requested that the gunner's seat be in a 12:00 position on the wall past the ammunition storage.



The first Jagdtiger with Porsche running gear (chassis no. 305001) was reequipped by Verskraft in Kummersdorf. Now twelve hooks for spare track links are welded onto each side of the fighting compartment. A barrel brace for the cannon was mounted on the upper bow plate.

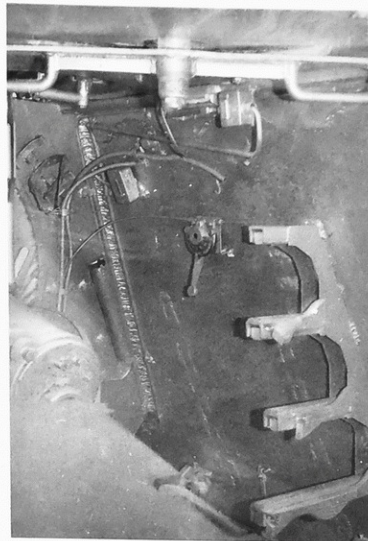
Significant changes that influenced the performance of the Jagdtiger, and likewise affected its outward appearance, were:

**July 1944:**

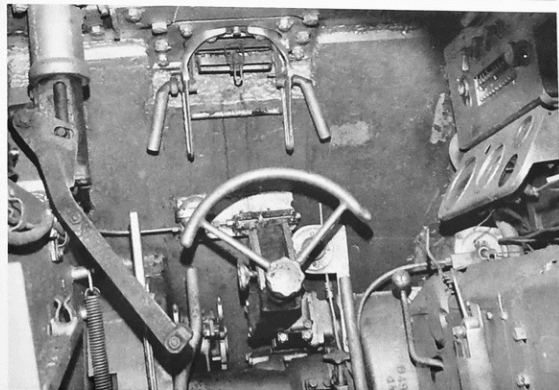
The large sheet-metal shields on the exhaust pipes were omitted in production.

**August 1944:**

A barrel brace for the primary weapon was attached to the upper bow plate.



Jagdtiger (chassis no. 305004). The commander's machine telegraph was mounted on the right body side. It was connected by cable to an indicator by the driver and allowed, by automatic operation, communication between the driver and commander. Indications such as backward (left or right), stop or tank march (left or right) were possible. For Jagdpanzer this equipment was especially important, since the whole vehicle had to be turned to aim at a target.



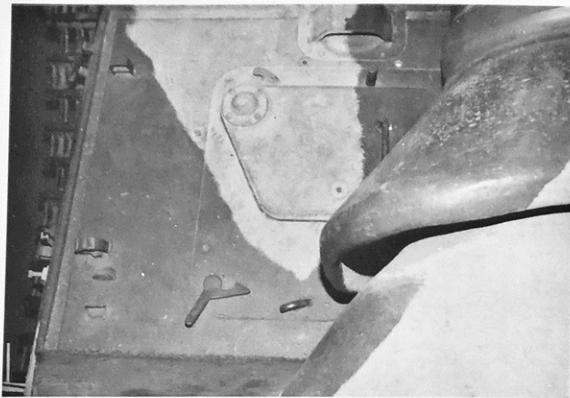
The other position by the driver was to be found behind the steering wheel, right in the driver's field of vision. It consisted of an indicator and a bell, to make the driver aware that the commander wanted to communicate with him.

September 1944:

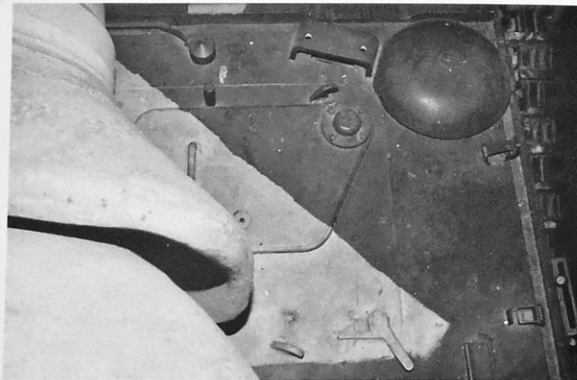
Production was changed to the Henschel running gear with transverse torsion bars and overlapping road wheels. The track type that was introduced for the Tiger II was now also used on the *Jagdtiger*. Since the connecting track links were made stiff, every

other tooth on the drive wheels could be omitted, which reduced the number of teeth from eighteen to nine. Because of difficulties in track production, some *Jagdtiger*, which were assigned to *Panzerjägerabteilung 512*, received old type tracks in March 1945

On September 9, 1944, the OKH gave the order to apply "Zimmerit" coatings to all armored vehicles.



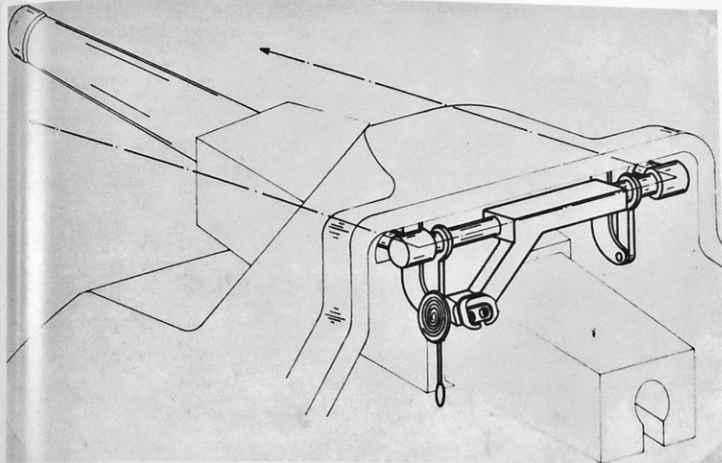
The driver's hatch with visor. At right is the shield for the primary weapon.



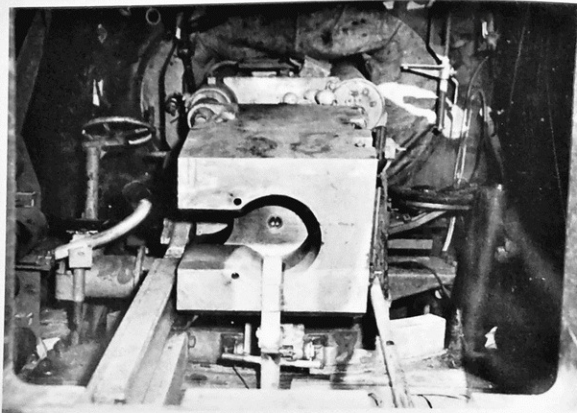
The driver's hatch, with the added ventilator for driver and radioman at the upper right.



The roof of the *Jagdtiger* fighting compartment. The bolt in front of the commander's hatch is an attachment for the planned range finder.



Schematic drawing of the range finder.

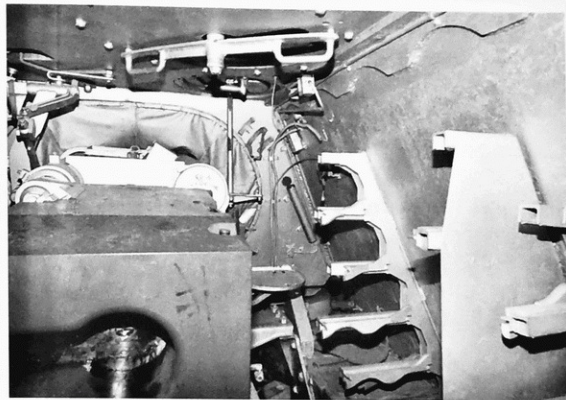


A look into the fighting compartment from back to front. In the center is the breech of the 12.8 cm cannon.

November 1944:

The racks for the 20-ton winch and the wooden block to put under it to form a base for the winch were no longer attached, since the winch had proven to be too weak for the 75-ton vehicle.

Interior views of the Jagdtiger fighting compartment.



Left side: The commander's battle station and the racks for 6 + 8 cartridges.



Storage of the separated ammunition, cartridges lying, shells standing (chassis no. 305058).



Left rear: Rack for six cartridges. Traces of welding on the sidewall indicate the position in the prototype.

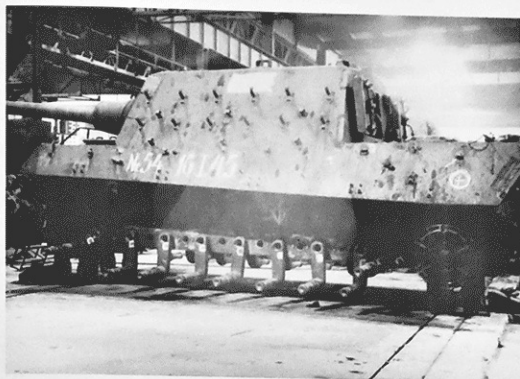


## Production

Despite the usual initial difficulties brought on by a year's gap between the first design and the start of series production, the Nibelungenwerk delivered three *Jagdtiger* in July, three in August, and eight in September 1944. After successfully changing the factory setup to produce the Henschel running gear, and with the experience in the production of heavy vehicles gained in the interim, it was possible for the Nibelungenwerk to fill the foreseen

production quotas, until 143-ton explosive bombs hit the works during an air raid on October 16, 1944. Thus, the October production dropped back to nine units, with another six following in November, and only in December did it reach the highest production until then of twenty *Jagdtiger*.

During a conference on October 12, 1944, the decision was made to build just one more series of 150 *Jagdtiger*. After they were built, the freed production capacity would be made available for increased production of the Panther tank. At a later conference on January 3, 1945, though, Hitler requested that under no circumstances should *Jagdtiger* production be halted after 150 vehicles. On the contrary, every effort should be made to increase



The Henschel running gear can be seen well in this picture. The carrying arms of the road wheels are already installed; next will be the torsion-bar suspension. (Chassis no. 305054, date of finishing 1/16/1945).



The Nibelungenwerk was hit by 143-ton explosive bombs during an Allied air raid on 10/16/1944. The considerable damage to the heavily armored *Jagdtiger* bodies came as a surprise.



*Jagdtiger* on the assembly line at the Nibelungenwerk in St. Valentin, Austria.



Jagdtiger with Porsche running gear (chassis no. 305009) and loading tracks.



Jagdtiger with Porsche running gear, being loaded in Fallingb. in September 1944.

production, keeping in mind the capacities of the manufacturers of thick armor plates. The Army Ordnance Office presented the production plans for 1945 on January 30, 1945. The Nibelungenwerk was required to produce another 100 *Jagdtiger* (10 in January, 40 in February, 25 in March, and 25 in April), and then to switch at once to producing 25 Tiger II tanks in May, with a progressive monthly quota rising to 60 Tiger II by August, and remaining there until the end of the year. The production of *Jagdtiger* should be transferred in May 1945 to the Jung firm in Jungenthal, a firm that until then had not built a single armored vehicle. The suggested production for Jung began with five in May, then 15 in June, and 25 per month from July to December 1945. But reality caught up just a few days later with the publication of the "Need Program," bringing out the fact that it was planned to use still available means for the production of the most effective weapon system. The production of *Jagdtiger* was again foreseen as 25 in February, 40 in March, and the last 27 in April 1945. Personnel shortages, electric power outages, and transport problems allowed the production of only ten *Jagdtiger* in January and 13 in February 1945.

On February 26, 1945, the Führer ordered an immediate application of forced measures to increase the production of *Jagdtiger* to its highest level in the shortest possible time. Since the production problem in March was the lack of 12.8 cm guns, the Führer ordered that immediately, wherever such guns were available, and—if possible—also barrels stored from the captured mounts of 12.8 cm cannons, must be delivered immediately for this purpose. Transportation was to have priority. If full production

should be possible, then the additional possible production capacity should be equipped with 8.8 cm L/71 guns at once.

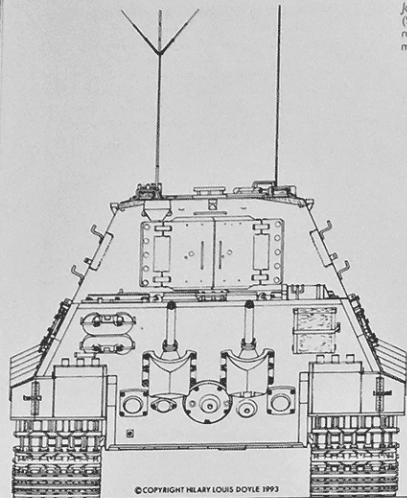
On October 25, 1944, Hitler had already ordered mounting 52 12.8 cm antitank guns from the *Jagdtiger* program on captured Russian and French gun mounts. Since Krupp in Essen had produced two 12.8 cm guns in December 1943, 118 in 1944, and 30 more in January 1945, enough 12.8 cm Pak were available to equip the three *Jagdtiger* that were finished at the Nibelungenwerk in March 1945. An air raid on March 23, 1945, in which 258 tons of explosive bombs were dropped on the Nibelungenwerk, delayed further *Jagdtiger* production.

The damage to the works was repaired and further production went on, as reported on April 29, 1945, by the *Arbeitsstaffel / Abt.Org.K* (Gen.Insp.d.Pz.Tr.):

1. Panzer delivery in the southern area since 4/15:  
**4 Jagdtiger 12.8 to Panzerjäger Abteilung 653**
2. Further Panzer deliveries by the end of April:  
Approximately 4 *Jagdtiger* (8.8)
3. Prognosis for May:  
17 *Jagdtiger* (8.8)

On May 2, 1945, it was ordered that the already supplied crews be kept constantly ready to pick up *Jagdtiger* in Linz. As members of Heavy *Panzerjäger Abteilung 653* remember, the last *Jagdtiger* made at the Nibelungenwerk no longer saw service. The *Jagdtiger* were supposed to be blown up on 4 May. The Red Army occupied the works in the Herzograder Wald on May 9, 1945.

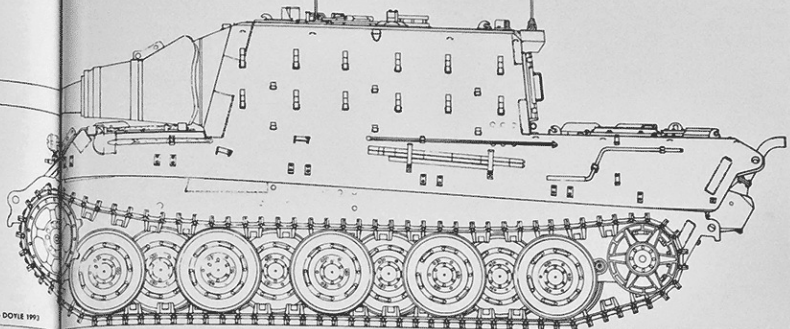
*Jagdtdiger* as Command Vehicle (1945)  
 (Star Antenna D for additional FuG 8 radio in all command vehicles—"mushrooms" on the sides, front and rear of the roof of the fighting compartment—changed attachment of the side skirtsings)



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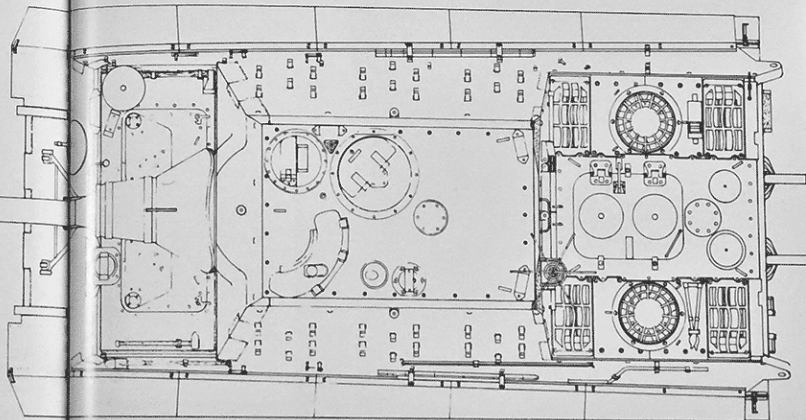
Rear view: (Further cutting back of armor-plate corners at the back of the fighting compartment to improve sight from periscopes—handholds over the rear body plates—"mushrooms" for the crane)

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Top view: (Cover over central air outlet—secure fastening to hold the engine compartment flap open)



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## Action

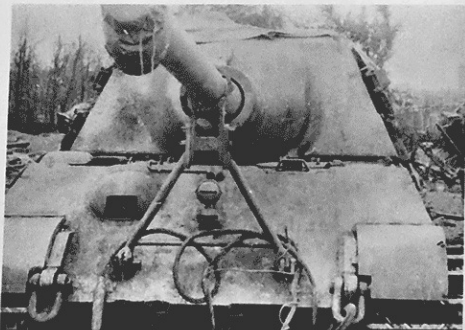
The 3<sup>rd</sup> Company of *Panzerjäger Training Abteilung* 130 of the Panzer Training Division was to be the first unit of the *Wehrmacht* to be supplied with *Jagdtiger* in March 1944. Fourteen *Jagdtiger* were foreseen: two for the Company Staff, and four for each of the three platoons. Production delays prevented this from taking place, and the company went into action in June 1944 with nine *Jagdpanzer* IV.

The first unit that was actually supplied with *Jagdtiger* was the Heavy Army *Panzerjäger Abteilung* 653. It had already fought for a year with the *Elefant* on the eastern front and in Italy, and was therefore a logical choice. After all, the still usable *Elefant* were gathered in the 2<sup>nd</sup> Company (s.Pz.Kp. 614), while the *Abteilung* consisted at first of only two companies. Because of continuing production problems, the time for the 653<sup>rd</sup> *Abteilung* was delayed again and again. By the end of November 1944, only 16 *Jagdtiger* had been supplied to the *Abteilung*.

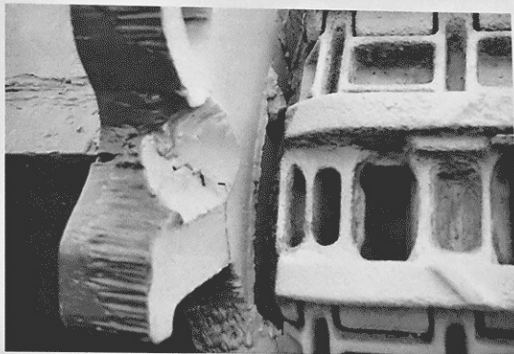
It was originally planned to use Heavy *Panzerjäger Abteilung* 653 in the Ardennes Offensive in December 1944. The 1<sup>st</sup> Company, equipped with 14 *Jagdtiger* in all, was sent by rail from the troop



The first front unit that received *Jagdtiger* was Heavy *Panzerjäger Abteilung* 653. Here the vehicles are loaded for service in the Hagenauer Forest (chassis no. 305032).



*Jagdtiger* (chassis no. 305032) before loading. It still has marching tracks on.



*Jagdtiger* (chassis no. 305020), finished in October 1944, was assigned to PzJgAbt. 653. Its tactical number was 31. The vehicle took several hits, but they did not penetrate. One shot hit the rear's head mantlet, another the front corner of the hull side plate. This damage blocked the left reduction gear (see small picture). The vehicle turned with its side to the enemy, and the crew left it without destroying it.



training camp at Döllersheim to the western front. Two of the trains were unloaded in Wittlich-Wengerohr (50 km behind the front of Army Group B). These and one other train that had meanwhile arrived were unloaded on December 12, 1944.

To carry out the order to move forward into the assembly area for the Ardennes offensive, three trains were required to move the 653<sup>rd</sup> to Kall behind the center of the 6<sup>th</sup> Panzer Army. Only one train was available and, loaded with six *Jagdiger*, left Wittlich-Engerohr on December 19, 1944, to be unloaded in Blankenheim on December 21, 1944. These six *Jagdiger* stayed in Blankenheim (18 km behind the main battle line), and were not used during the offensive. On December 23, 1944, the 653<sup>rd</sup> received the order to support the planned Operation "Nordwind" with Army Group G. Three trains were ready to transport the 653<sup>rd</sup> to Zweibrücken (the concentration area for the offensive), 13 km behind the battle line.

The transfer was to begin on December 26, 1944, but obvious problems, such as the readiness of special SSyns railroad cars, could not be solved, as the rail lines had suffered from air raids. Since trains were not available, the 653<sup>rd</sup> was instructed to set out with eight *Jagdiger* on the road from Wittlich-Wengerohr to Boppard, and send the six *Jagdiger* from Blankenheim to Reifsdorf, near Bonn. The eight *Jagdiger* (most of them with Porsche running gear) did not reach Boppard, but were still scattered around the Moselle valley with mechanical problems on February 5, 1945. Two of the *Jagdiger* from Blankenheim also dropped out; the other four made it to Reifsdorf, were loaded on the train there on December 31, 1944, and reached Zweibrücken on January 2, 1945. Three more *Jagdiger* that had been sent on the march from Döllersheim, Austria, reached Zweibrücken by train on December 30, 1944. On December 30, 1944, Hitler ordered the

653<sup>rd</sup> to be subordinated to the 17<sup>th</sup> SS *Panzergranadier* Division "Götz von Berlichingen" within the 1<sup>st</sup> Army of Army Group G. At the beginning of the offensive on the last day of 1944, only 3 *Jagdiger* were available. No information on the action of these vehicles in Operation "Nordwind" has been found. This operation showed only limited initial success, and disbanded on its own after a few days. After this offensive, the 653<sup>rd</sup> reported on January 4, 1945, a combat strength of 6 *Jagdiger*, one being repaired. On December 25, 1944, the High Command of Army Group G had called the Commander of the First Army's attention to the following qualities of the *Jagdiger*:

#### Re Heavy Panzerjäger Abteilung 653

The following notice about the action of *Jagdiger* is absolutely to be noted:

Armament and mobility of the *Jagdiger* require firm, level open country.

*Jagdiger* is dependent on bridges, since deep ravines and brooks strain the chassis and drive too much (gearbox, weight 80 tons).

Particular difficulties with the Porsche running gear (*Abteilung* has seven

*Jagdiger* Porsche, the others have Henschel chassis):

1. Strong jolts from two-part tracks, with the cannon thrown out of adjustment. The running gear was suspended too stiffly.
2. Track ground contact of the box running gear with simple road wheels causes lateral overburdening of the tracks in rough (stony, rutted, winding roads) terrain, and leads to bending of tracks or breaking of track bolts.
3. Special running-gear parts, as well as our own offroad or loading tracks, make maintenance and repairs difficult.

Action: Slow rate of fire (shells and cartridges, necessity of zero setting after every shot for reloading) requires great numbers of *Jagdiger* for an attack.

Strength: Cannon with penetrating power at 3500 meters. Attack depends on firm ground, far sight. Breakdowns about 40%, thus action only with full *Abteilung*, otherwise defensive power against enemy counterattacks is too meager.

Oberkommando H.Gr.G Der Chef des Generalstabes  
(signed) Staedke, Major General

On 13 December a new company was to be established in Döllersheim. This newly formed 2<sup>nd</sup> Company began as of January 23, 1945, to arrive at the *Abteilungen* on the front. In addition to the 33 *Jagdiger* that were assigned directly to the unit, there came another eleven *Jagdiger* (seven of them with Porsche running gear) to the 653<sup>rd</sup> from the Replacement Army. These eleven *Jagdiger* had originally been sent to Mielau and Döllersheim for training. After all the *Jagdiger* had arrived at the front, the s.Pz.Jg.Abt. 653 consisted of three companies, each with 14 *Jagdiger*.

The *Abteilung* Staff received three m.SP.W (Sd.Kfz. 251/6), since command *Jagdiger* were not available. Additional support vehicles of the 653<sup>rd</sup> were assembled in an Armored Reconnaissance Platoon with seven SP.W (Sd.Kfz. 251).

The Engineer Platoon received three m.SP.W (Sd.Kfz. 251/7), the Anti-Aircraft Platoon three 2cm four-barreled Flak (Sd.Kfz. 7/1), and an Armored AA Platoon with four 3.7 cm Flak on Panzer IV, plus four 2 cm four-barreled Flak on Panzer IV. The Recovery Squad had 4 *Bergepanther*.

Because of the high value that was placed on *Jagdiger*, and the resounding success to be expected from this secret weapon, the fate of the s.Pz.Jg.Abt. 653 was followed almost daily in the following situation report to the Inspector-General of the Armored Troops and Supreme Commander.

On January 9, 1945, from General of the Armored Troops West, Re: s.Pz.Jg.Abt. 653 (*Jagdiger*): There are two *Jagdiger* ready for action in the Boppard area. After conferring with the Gen.d.Trp.W., their loading is ordered for the evening of 1/9/1945.

Two *Jagdiger* in Emmelshausen, 12 km west of St. Goar, both with motor damage, too little oil pressure.

Two *Jagdiger* in Godenroth, 15 km southwest of St. Goar, one with steering damage, one with broken ventilator drive.

Three *Jagdiger* in Briedel, on the Mosel, one with motor damage, too little oil pressure, one leaks cooling water and has defective electric system, and one with motor damage, defective valves, and connecting rods.

Three *Jagdiger* in Wengerohr, two with motor damage, too little oil pressure, one with gearbox damage.



The *Jagdiger* (chassis no. 305004) was also sent to the proving grounds of the Army Ordnance Office, and was captured by British troops at a training camp. It was sent to Bovington, where it is still to be seen in the museum. The barrel brace was not yet installed, and the third wheel track of the Porsche running gear is missing. It broke off during driving tests. Next to it is a Tiger tank, Type B, with the early turret.

The Workshop Company of Z.Pz.Jg.Abt. 653 is working at this time on the three *Jagdiger* in Wengerohr. The work there is made difficult because the Workshop Company has no crane trucks available. The Workshop Company is depending on a railroad crane in Wengerohr.

The further arrival of two *Jagdiger* from the repair shop in Boppard can be expected by evening on 1/12/1945.

The following orders had rerouted two *Jagdiger* that were on the way to s.Pz.Jg.Abt. 653:

Army Group G, January 10, 1945, 20:45 Ob. West on order of the Führer the two *Jagdiger* in transit are to be sent under all conditions to the 10<sup>th</sup> SS Panzer Division, since they are especially suitable for fighting against bunkers.

Army Group G, Jan. 10, 1945, 21:15 Army Group passes on to XXXIX Pz.K. and Commander of s.Pz.Jg.Abt. 653 the order about the delivery and subordination of the two *Jagdiger*. It is ordered that both *Jagdiger*, under all conditions, must have arrived in the area SW of Lauterburg, and be ready for action and loaded with ammunition.

On January 16, 1945, *Oberstleutnant* Johanns, Leading Vehicle Officer of the Inspector-General of the Panzer Troops, reported:

Re: *Jagdiger* with z.Pz.Jg.Abt. 653:

On orders from General Thomale, I visited the broken-down *Jagdiger* of the Heavy *Panzerjäger* *Abteilung* 653 on 1/13 and 1/14/1945, along with two firm specialists (from Henschel and Maybach firms), to determine their problems.

**Found:** Ten of 16 *Jagdiger* that set out from the Wittlich area (Moselle) on a transfer march to Boppard, on the Rhine (90 km road march), broke down. Six of them have severe damage (four with motor big-end bearing damage (chassis no. 305010, 305014, 305017, and 305031), two with gearbox damage (chassis no. 305012 and 305025), and four with minor damage (chassis no. 305011, with electric short circuits as result of an engine fire, no. 305022 with damage to the valve control of the motor, no. 305009 with broken ventilator drive, and no. 305019 with gearbox oil leak resulting from piercing of a gasket).

**Repairs:** Needed spare parts have been ordered immediately from the repair shop and are on the way.

General of the Panzer Troops West has meanwhile sent a crane truck with three armorer blacksmiths on the march for support. A gearbox specialist has also been sent to the *Abteilung*.

The four slight cases can be finished in 1 to 2 days after arrival of the parts, the six serious cases in 1 to 2 weeks.

**Reasons for the unusually high breakdowns on the march:**

- 1.) The *Jagdiger*, because of its great weight (10 tons more than the Tiger II), is considerably more sensitive and ponderous than the Tiger II. The chassis is overstrained, and thus breaks down easily.
- 2.) The training of the drivers and technical personnel was insufficient, although they had been sent to the Nibelungenwerk. The Ni-Werk, that obviously regards the Henschel chassis as repugnant and strange, has, for example, instructed the drivers very insufficiently about the Olvar gearbox, so that complete helplessness dominates with the smallest disturbances.

Therefore it is suggested:

- a. Immediate sending of a specialist from the Henschel firm who knows the entire chassis, including motor and gearbox, well, to instruct the drivers and technical personnel of the s.Pz.Jg.Abt. 653. Extent of the instruction about two weeks.
- b. Training of *Jagdiger* drivers also at the Henschel firm, plus establishment of *Jagdiger* units only in the Kassel area.
- 3.) The s.Pz.Jg.Abt. 653 had no special tools, and therefore could not help in many cases. In 6 has initiated a search for the whereabouts of the tools.
- 4.) There is lacking among those in command (*Oblt.* Haberland, *Chef* 1.Kp./653, and *Baurat* Jörger, *stellv.* *Abt.* *Ing.*), as well as among the drivers, the natural urge to make their vehicles ready for action as soon as possible, or at least to prepare the necessary repairs to the last. Most vehicles stood for five days without any determination of the cause of damage, or preparation for repairs, being done. The impossibility of this attitude has been made clear to the involved. In addition, the General of the Panzer Troops West has been asked to keep an eye on the *Abteilung*.
- 5.) The divided action of the *Abteilung* (some vehicles in the Wittlich area, the others in the Zweibrücken area) makes the repair servicing of all vehicles impossible, what with the most meager supplying with J-service devices (at the time only one crane truck on hand!). Also for this reason, closed action of the *Abteilung* is to be striven for.

6.) All the J-services of Abt. 653 were in the Zweibrücken area, no J-service in the Wittlich area. The J-services must not be loaded later than or separated from the combat units.

**General Findings:**

1. Through Company Chief, *Abt.* *Ing.*, Storekeepers and Drivers of the 1<sup>st</sup> and 3<sup>rd</sup> Companies, 653, a marching performance of 30 to 40 km per day was described as good. For the Wengerohr-Boppard stretch (ca. 90 km) the *Abteilung* had at first foreseen three marching days. The covering of this stretch by several *Jagdiger* in two days was regarded as a noteworthy result!

Apparently this is the result of training at the Ni-Werk, which aims at the most extreme sparing of the device. Abt. 653 was not clear about the fact that in such marching performances the sense of motorization has come to nothing.

2. At the Henschel firm I was informed by General Manager *Dr.* *Ing.* Stielor von Heydekampf, Director Petrus, and others that the *Jagdiger* proves itself best at the front, and should have had great success. Therefore, the suggestion is made to build not only the originally planned 150 *Jagdiger*, but even more.

I explained that nothing is known to date of the good performance and success of the *Jagdiger* by the Inspector-General of the Panzer Troops. According to *Oberleutnant* Haberland, Company Chief, 1.Kp./653, to date only a few *Jagdiger* have seen service as artillery in the Zweibrücken area. One Sherman was shot down, and one *Jagdiger* was a total loss from explosion (cause not known).

To Inspector-General of the Panzer Troops, re: s.Pz.Jg.Abt. 653 (*Jagdiger*):

- A) Condition of the Vehicles (1/22/1945)
1. At the bridgehead of the XXXIX Panzer Corps, 5 *Jagdiger*, 4 ready for action, 1 in long-term repairs.
2. In the Buehl area, 8 *Jagdiger*, 4 ready for action, 2 each in short- and long-term repairs.
3. In transport from Saarpfalz, 5 *Jagdiger*.
4. Zweibrücken area, not yet loaded: 4 *Jagdiger*, 3 ready for action, 1 in short-term repairs.
5. Moselle-Rhine area, 10 *Jagdiger*, all being repaired.
6. In Buehl area, 8 Fla-Pz.IV, in Zweibrücken area 3 Berge-Pz.V, in Moselle area 2 Berge-Pz.

## B) Combat Experience

Two *Jagdiger* used by XIV SS Army Corps saw action against a bunker line near Auenheim on 1/17/1945 for fire support of the infantry. Shooting good. 6 explosive shells. On January 18, 1945, action against 4 shot-secure bunkers. Firing accuracy at 1000 meters excellent. Armored cupola of a bunker burned out after 2 shots. Bunker loophole fire had good success. A Sherman applied in a counterthrust was set afire by explosive shells. Ammunition used: 46 explosive shells and 10 antitank shells. No losses.

## C) Particular Difficulties

Supply and repair services, including cranes, plus towing vehicles, are still lacking at the site of action. A whole workshop platoon is still working on the Moselle. Lack of spare parts, especially gearboxes, delays repairs. Command vehicles (9 SPW) underway from Spandau since 12/5/1944 have not yet appeared. Ammunition is still lacking in the ammunition dumps. All vehicles not yet arrived: 7 Sd.Kfz.10, 1 Le.Lkw, 3 m.Lkw, 1 Berge-Panzer, 1 Sd.Kfz.200, 22 s.Lkw, 1 Kfz.42, 2 Sd.Kfz.9/1, and 1 arc welding apparatus.

Berge-Panzer V insufficient, also with cable winch. On main roads, *Jagdiger* can be towed with a Berge-Panzer V and 2 18-ton Zgkw.

In January 1945 the first total loss of a *Jagdiger* was reported, which was probably the reason for the following report:

## To Gen.d.Pz.Truppen West, February 5, 1945:

Report over 10. SS z.Div. "Frundsberg." The enemy has surprisingly attacked in the Drusenheimer Forest in the last few days, supported by tanks. There were definitely one *Jagdiger* captured by the Americans and several Panthers identified."

On February 1, 1945, the 653 reported 22 *Jagdiger* ready for action, plus 19 vehicles that were being repaired. The unit served as a mobile armored reserve behind the left flank of the First Army under Army Group G.

A detailed situation report of February 5, 1945, gives information on the number of vehicles and locations of the scattered unit:

- 1) *Abt.* in Landau area in assembly. In assembly area found 1 *Jagdiger* (10 ready for action, 1 short-term repairs).
- 2) In the Moselle valley—between Boppard and Briedel—8 *Jagdiger* (1 ready for action, 4 short-term, 3 long-term repairs.)

- 3) 1 *Jagdiger* (ready for action) in St. Ingbert area.  
 4) 19 *Jagdiger* (9 ready for action, 4 short-term, 6 long-term repairs) between Buehl and assembly area, being transported to assembly area.  
 5) Two *Jagdiger* being sent from Döllersheim.  
 On March 21, 1945: The Führer has ordered that the fuel supply of the *Jagdiger* Abt. 653 is to be assured by special shipment under all conditions.

The Chief of the High Command of the *Wehrmacht*  
 Keitel

On March 23, 1945, to Inspector-General of the Panzer Troops: Re: s.Pz.Jg.Abt.653, Panzer situation, as of 3/2/1945 (8:00 P.M.):

1<sup>st</sup> 31 *Jagdiger*, fully ready for action 203, being transported by rail 9 (some in short-, some in long-term repairs). 1<sup>st</sup> supply can have decreased to 2 vehicles during the night of 3/22-23 through explosion. Report is still lacking. Major Grillenberger urgently needs two weeks of technical overhauling for all the vehicles.

And further, on March 23, 1945, to Inspector-General of the Armored Troops:

The officer sent by Ob West to s.Pz.Jg.Abt.653, *Oberstlt.* (Ing.) Meyer reports the following on the loading of the *Abteilung*: 1. The 1<sup>st</sup> supply of the *Abteilung* was 41 *Jagdiger* before 3/18/1945. In the transfer moves out of the main battle line, 7 *Jagdiger* had to be blown up in the forefield of the West Wall, since towing was not possible.

On 3/18/1945 the 1<sup>st</sup> supply was 34 *Jagdiger*, of which there were from 3/18-21/1945:

A) 18 *Jagdiger* ready for action, 5 in rail transport, and 13 on land march to the new combat area.

B) 16 damaged Panzer on the march in rail transport or on tow to the new repair area at Bellheim, near Germersheim. One *Jagdiger* blown up at the last minute because of enemy approach after removal of optics and other valuable equipment.

2. The damaged Panzer and damaged vehicles being taken back to the Bellheim area, including 4 Flak-Panzer IV and 2 18-ton towing tractors, were loaded in the night of 3/21-2 at Bellheim and Rheinzabern for transport to Graben-Neudorf. Railroad cars were made ready.

3. Fuel difficulties have not appeared in all the loading work. Fuel supplying of the 18 *Jagdiger* used in combat was not banned during the presence of *Oberstlt.* Meyer. With a consumption of 1 cbm per *Jagdiger*, the total consumption of the *Jagdiger* in action is only 18 cbm. The *Abteilung* had about four supplies through sending of the first 90 cbm of gasoline. Through the further sending of 125 cbm, the *Abteilung* is able to fulfill its assigned tasks fully.

To Inspector-General of the Panzer Troops, March 30, 1945, (1910),(19.10) Panzer Situation of s.Pz.Jg.Abt.653:

Total 28 *Jagdiger*, ready for action, 6 short-term repairs, 12 long-term repairs 10. Newly out of action since 3/25/1945 are 6 *Jagdiger*. At the Workshop Platoon is one *Jagdiger* ready to drive, another ready to be picked up.

On 3/29/1945 early, 10 long-term damaged *Jagdiger* were sent by rail to the workshop company in the Stuttgart area. On 3/29/1945, 1 truck with 4 Porsche wheel trucks arrived in Bretten from the Ni-Werk. 1 truck with side drives from Cannstadt broke down.

To Inspector-General of the Panzer Troops, Panzer Situation of s.Pz.Jg.Abt.653 on 4/3/1945:

Total 23. Ready for action 1, short-term repairs 11, long-term repairs 11. Newly out of action since 4/1/1945 5, total out of action since 4/1/1945 is 5. Finishing dates could not be given at this time, a Workshop Platoon is moving and having troubles with towing. Last spare parts from Ni-Werk arrived on 3/30/1945.

Panzer situation of the s.Pz.Jg.Abt.653, as of 4/9/1945: 10 ready for action, 7 long-term repairs (over 5 days), readiness for action in the *Abteilung* is again in doubt because of fuel situation. Again, request has been made for special assignment of 50 cbm fuel to be sent at once.

Panzer Situation of s.Pz.Jg.Abt.653 on April 14, 1945 (11:00): Total 17, ready for action 5, short-term 6, long-term 5, newly out of action since 4/10/1945 5.

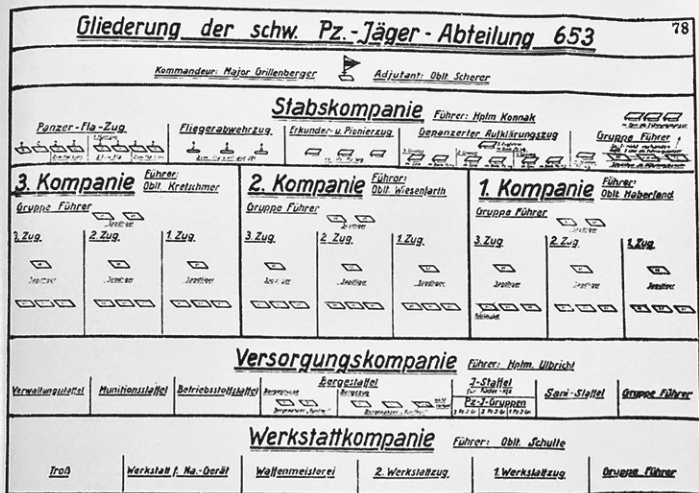
On 4/14/1945 again one truck was sent on march to Ziesar to Ni-Werk to pick up track bolts, since readiness for action is endangered by lack of track bolts.

To Inspector-General of the Panzer Troops, April 15, 1945:

1. Panzer situation of s.Pz.Jg.Abt.653: Total 17, ready for action 5, short-term 6, long-term 6
2. Towing vehicle situation (armored): Total 4, ready for action 1, short-term 2, long-term 1
3. As result of fuel lack, setting readied columns in march to Ziesar and to Ni-Werk was not possible until 4/15/1945.
4. Immediate urgent new needs:
  - 3 sets of tracks for Panzer V tank
  - 3 sets of tracks for *Jagdiger* II (Henschel running gear)
  - 2 sets of tracks for *Jagdiger* II (Porsche running gear)

**Jagdiger Situation of the S.PZ.JG.ABT.653**

Date	Total	Ready	Repairs
12/30/1944	5	2	
1/23/1944	6	1	
1/9/1945	16	2	14
1/22/1945	32	16	16
2/1/1945	41	22	19
2/5/1945	41	21	20
2/9/1945	41	32	9
3/1/1945	41	31	10
3/15/1945	41	38	3
3/18/1945	34	18	16
3/22/1945	33	2	31
3/26/1945	28	9	19
3/30/1945	28	6	22
4/3/1945	23	1	2
4/9/1945	17	10	7
4/10/1945	17	10	7
4/14/1945	17	5	12
4/26/1945	14	1	13



Structure of the s.Pz.Jg.Abt. 653 as of 3/11/1945.



The war is over: Near Amstetten, in Austria, Americans and Russians meet. In this confusion is what remains of Heavy Panzerjäger Abteilung 653 with the remaining Jagdtiger.



This Jagdtiger (chassis no. 3050580) was finished in January 1945, and sent to Heavy Panzerjäger Abteilung 653 in March 1945. Captured by the US Army in Germany, the vehicle shows the six sets of spare track links attached at the factory since December 1944. The driver's and radoman's hatches each had two handholds.

As ordered on April 16, 1945, the 3 (4) *Jagdtiger* at the Army Arsenal in Linz (Ni-Werk) were sent to *Jagdtiger Abteilung 653*. OB West is asked to approve their taking over and being shipped from Army Arsenal Linz. The last combat unit that still received *Jagdtiger* was a collecting command of the 653<sup>rd</sup>, which went to Linz in late April 1945 and took over four *Jagdtiger*. In action east of Linz, the battle group surrendered where Americans and Russians met in the vicinity of Amstetten on May 5, 1945. One of these four *Jagdtiger* is now at the Russian Tank Museum in Kubinka.

To increase the number of armored vehicles available for the Ardennes Offensive, plans were made on November 3, 1944, to assign 14 *Jagdtiger* to the 3<sup>rd</sup> Company of Heavy SS Panzer Abteilung 501. This decision was revoked by Hitler the very next day, when he ordered that *Jagdtiger* should not be taken in the establishing of *Tiger Abteilungen*.

Because of the low production rate, it would not have been possible anyway to set up another company with *Jagdtiger* for the Ardennes Offensive.

The only other front unit that was to be fully supplied with *Jagdtiger* was the Heavy Army *Panzerjäger Abteilung 512*. Their organization was ordered in Döllersheim on February 6, 1945. Personnel were to be made available by Heavy Panzer Abteilung 424 (formerly S.Pz.Abt. 501) and Heavy Panzer Abteilung 511. Each of the three companies was to receive ten *Jagdtiger*, plus one *Jagdtiger* for the company chief and for each of the three platoons. The planning foresaw that the 1<sup>st</sup> Company would be ready for action in mid-February, the 2<sup>nd</sup> at the end of February, and the 3<sup>rd</sup> at the beginning of March 1945.



Further improvements to all *Jagdtiger* made since December 1944 were carried out by attaching a covering plate for the deep-fording air intake, and omitting the winch and ground plates.

As reported below, the completion of the *Jagdtiger* was delayed because of faults in the steering gear:

Office for Panzer and Motorization/Prüf.Pz.  
Kummersdorf H. Colonel Crohn  
Re: Damage to steering gear of *Jagdtiger*  
As to the report of Colonel Crohn, Prüf Pz. On 2/16/1945, about series-production steering-gear damage which appears after *Jagdtiger* have been driven 250 to 400 km, the Inspector-General has decided:

1. *Jagdtiger* not yet delivered to the troops are to be delivered only after the installation of the changed steering gear.
2. *Jagdtiger* already in action with the troops will be withdrawn individually for rebuilding, when an exchange steering gear is ready at the Workshop Company of the applicable Abteilung.

Gen.Insp.d.Pz.Tr./Lt.Kf.Offz.  
Bd.Nr. 3570/45  
Geh.v.2/16/1945  
The Chief of Staff  
Major General Thomale

Re: Readiness for action of s.H.Pz.Abt. (Jagdtiger) 512

1. In the action of the *Jagdtiger* of the s.H.Pz.Jg.Abt.653, series production damage to the steering gear had resulted (design weakness).
2. Change of form is necessary for all *Jagdtiger*.
3. Carrying out the change of form is to be done first to *Jagdtiger* of new production in the homeland war zone.
  - a) 5 *Jagdtiger* of s.Pz.Jg.Abt.512, Döllersheim
  - b) 6 *Jagdtiger* in the Army Arsenal, Linz
4. The readiness for action of s.Pz.Jg.Abt.512 is hereby delayed. The time of readiness will be announced as soon as the time for the change of form is definite.

Gen.Insp.d.Pz.Tr./Lt.Kf.Offz.  
Abt.Org.IINr.746/45 of 2/16/1945

The Chief of Staff  
Major General Thomale

Contrary to the plans, none of the companies was ready for action by the first of March. On March 5, 1945, the following report was made on the state of establishment of the 512<sup>nd</sup> Abteilung:

- 3<sup>rd</sup> Company: 5 *Jagdtiger* on 3/3, 12:00, sent out from Linz to Sennelager.  
5 more *Jagdtiger* sent out from Linz on 3/5 at 12:00/  
Transport time: about three days.
- 1<sup>st</sup> Company: 3 *Jagdtiger* are finished at the Arsenal/Cannons  
5 *Jagdtiger* ready at the factory, without tracks (not yet)  
2 *Jagdtiger* ready at the factory about 3/8 /fired
- 2<sup>nd</sup> Company: 1 *Jagdtiger* ready at the factory about 3/8  
6 *Jagdtiger* ready at the factory about 3/10

The combat tracks for all these *Jagdtiger* were to be delivered directly to Sennelager by the firm of August Engels, Völbort, Ruhr District. The Heavy *Panzerjäger* Anteilung 512 was supposed to see action against the Allied bridgehead at Remagen, which had been reached after the conquest of the Rhine bridge there on March 7, 1945.

If the *Jagdtiger* companies had been ready for action a month earlier, the operation could have had prospects of success. Now it was too late, and the companies were thrown into battle bit by bit, as this note for the Führer's speech on 26 March shows:

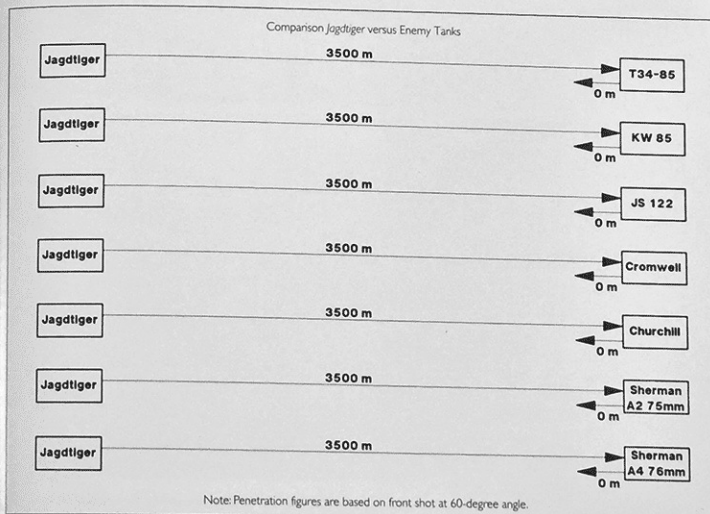
- 3<sup>rd</sup> Company with 10 *Jagdtiger* transported from Sennelager on 3/14, of which 5 *Jagdtiger* arrived in the Gummersbach area and saw action. Panzer situation, 3/25: 3 ready for action, 2 short-term repairs  
5 other *Jagdtiger* unloaded in Olpe area on 3/26.
- 1<sup>st</sup> Company with 10 *Jagdtiger*, along with Staff, parts of Staff Company, and parts of Supply Company transported from Sennelager on 3/19 and 20. On 3/26 arrived in Olpe area. Rest of Staff Company, Supply Company, and Workshop Company without commissary and repair services. Two companies ready to load in Sennelager. Transport report not yet here.

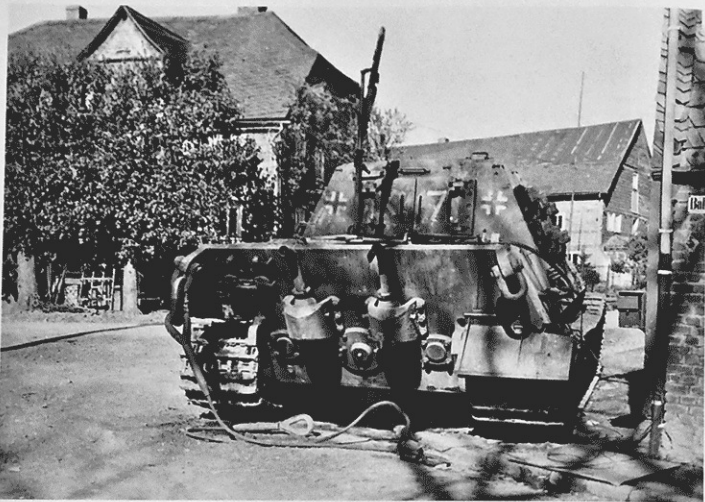
2<sup>nd</sup> Company with 5 *Jagdtiger* arrived at Sennelager, 3 *Jagdtiger* in St. Valentin ready to transport as of 3/27. One *Jagdtiger* was slightly damaged in a bombing raid on 3/23. Repairs presumably finished by 3/26.

And on March 31, 1945:

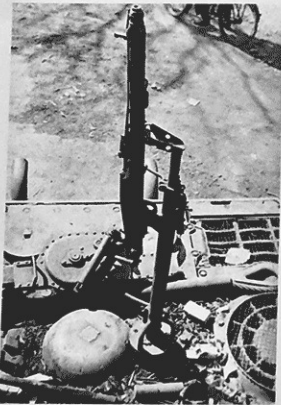
2<sup>nd</sup> Company, *Jagdtiger* Abteilung 512 in Sennelager with 5 *Jagdtiger* released by OKH for action in Ob. West. Three more *Jagdtiger* underway from St. Valentin to Sennelager since 3/23/1945. One *Jagdtiger* being repaired at St. Valentin since 3/31/1945.

On March 31, 1945, the Army High command cleared the 2<sup>nd</sup> Company with five *Jagdtiger* for immediate action. This order became necessary, since the Sennelager area was threatened by the 1<sup>st</sup> and 9<sup>th</sup> U.S. Armies with thrusts toward Paderborn. The five *Jagdtiger* had, naturally, no chance of holding up the Allies and preventing the closing on the Ruhr pocket. Under the numerous German troops who were surrounded there were the 1<sup>st</sup> and 3<sup>rd</sup> Companies of Heavy *Panzerjäger* Abteilung 512, who surrendered to the Allies on April 16, 1945, with the last combat ready *Jagdtiger*.





A good view of the MG 42 attached to the engine compartment cover for anti-aircraft defense.



Although the winch was officially not delivered anymore, this crew was able to get one and adopt it for new uses.



One of the last Jagdtiger, made in February or March 1945 and turned over to s.Pz.Jg.Abt. 512. The vehicle has the four "mushrooms" for attaching the two-ton crane. The vehicle was hit several times by KE shells, or the tracks were damaged and finally blown up by the crew.



This picture, taken on 4/16/1945, seems to attest to the rumor that track supplies were not assured. The Type Cg 24/660/300 tracks of this vehicle were loading tracks for railroad transport; they were not to be used offroad. The ground pressure was much too high.



The last act. The last parts of Heavy Panzerjäger Abteilung 512, with combat ready Jagdtiger, surrender to the U.S. Army in Iserlohn. Most of the Jagdtiger of the 512<sup>nd</sup> scarcely saw service, and were constantly in retreat. The last finished Jagdtiger left the factory in March 1945. It was sprayed a red color with dark yellow spots.



This Jagdtiger (chassis no. 305020) was shipped to the USA for examination, and was taken by rail to the Aberdeen Proving Ground in Maryland. Since the left drive wheel was jammed, it was removed along with the track. The chassis number was on the upper bow plate in black numbers 9.5 cm high. The tactical number 331 and the German cross, in black with white borders, were painted on both sides of the fighting compartment.

## Delivered Jagdtiger

Month	Shipped out	Reached troops
<b>February 1944</b> Army Ordnance Office	2 (1 Henschel, 1 Porsche running gear)	
<b>June 1944</b> Panzerjäger School, Mielau	1 6/30 Porsche running gear	
<b>August 1944</b> Replacement, Mielau	3 8/28 Porsche running gear	
<b>September 1944</b> s.Pz.Jg.Abt. 653 Repl. Army, Döllersheim	1 10/6 3 10/5	1 8/10 Henschel running gear 3 7/10 Porsche running gear
<b>October 1944</b> s.Pz.Jg.Abt. 653	1 10/23 1 11/18 3 11/18	1 10/23 Henschel running gear 1 11/18 Henschel running gear 3 11/24 Henschel running gear
Pulos Replacement Army Replacement Army	1 10/14 Porsche running gear 3 10/23 1 11/8 Porsche running gear	3 10/23 Henschel running gear
<b>November 1944</b> Pz.Jg.Abt. 653	4 11/24 3 12/7 1 12/7 1 12/8	4 12/11 Rest Henschel running gear 3 12/11 1 12/1 1 12/11
<b>December 1944</b> s.Pz.Jg.Abt. 653	1 12/8 12/29 1 4 1/2 4 4 1 1/13	1 12/12
<b>January 1945</b> s.Pz.Jg.Abt. 653 Pulos	1 1/13 1 1/25	(complete with 42)
<b>March 1945</b> s.Pz.Jg.Abt. 512 5 5 3/9 5 3/10 6	5 3/3 3/5  3/14	
<b>April 1945</b> s.Pz.Jg.Abt. 653	4 (no day listed)	

## Addendum

### Disagreement on the Control of Jagdpanzer and Naming of Devices

After the naming of *Generaloberst* Heinz Guderian as Inspector-General of the Panzer Troops, a long disagreement developed between him and the generals of the OKH. One of the basic points of contention was the control of the assault-gun units, and the further production of the Panzer IV tank with a turret instead of assault guns on Panzer IV chassis. The Service instructions of February 28, 1943, for the Inspector-General of the Panzer Troops included, among others, *Panzerjäger* troops and heavy assault gun units. The other assault-gun units remained under the control of the Artillery.

The apparently harmless correspondence on the designations of armored combat vehicles as *Sturmgeschütz*; or *Panzerjäger* had the greatest significance. As a *Sturmgeschütz*, it would belong to the Artillery; as a *Panzerjäger* to the tank destroyers. The appropriate service arm controlled the production, distribution, and tactical use of these combat vehicles.

A look into the history of this disagreement is afforded by the following excerpts from relevant files:

#### Addendum 1

Gen. Insp. d. Pz. Tr.  
Notes for Führer's Speech (9/5/1943)  
1. *Panzer IV* or *Sturmgeschütz*?

Superiority of the assault gun over Panzer IV despite opposing reports actually not given, since the assault gun:

- has no swiveling cannon, thus has a one-sided effect to the front, and must make time consuming moves to fire on flank and rear targets (24 degrees versus 360 degrees).
- is helpless against close attacks (no built-in MG), and thus depends on constant protection by infantry.\*
- is somewhat less offroad capability (1.5 tons heavier than the Panzer IV).

These tactical and technical disadvantages of the assault gun are not equalled by its advantages compared to the Panzer IV (less height, 80 rather than 50 mm front armor on the turret). The assault gun lacks the decisive, lightning fast effect to all sides, plus the ability to fight without other weapons if necessary. The Panzer IV can do both.

The Panzer IV, when the situation compels it to be, is also usable as an assault gun, but the assault gun is never usable as a tank. Imagining it as a Panzer IV means trying to make a many-sided weapon into a one-sided one.

Front reports that speak of the superiority of the assault gun over the Panzer IV are subjective. The assault gun remained with the infantry, while the tank was often used for other tasks. Thus, the greater sympathy for the assault gun.

The switch in production means, aside from unavoidable delays, a measure that, as soon as it is carried out, cannot be reversed at will.

Suggestion: no switch in manufacturing; rather, in times of need, use tanks as assault guns.

#### Addendum 2

The Inspector-General of the Panzer Troops  
HQ OKH, 10/19/1943

My Führer:

In the General Staff, as has become known to me, ideas are going around about breaking up the armored division into so-called "battle groups."

The future formation of the armored weapon therefore requires a clear decision.

The fast rebuilding of combat strength by the armored divisions requires a sufficient supply of weapons and men. Especially urgent seems to be the assignment of the mass of production to tanks to refresh the armored divisions. Here a quick buildup of the weapon is possible, at least if the production of the Panzer IV carries on according to past planning, or if it is not increased.

\* Excerpt from design of Gen. d. Inf./Gen. d. Art. Pamphlet "Guidelines for the use of assault guns in connection with the infantry": The assault guns cannot be used as tanks. They are slower and less offroad capable. For close range defense they are only suitable to a limited degree, since the rotating gun turret and the rear armor are lacking, the side armor is meager, and the entry hatch is open. Close cooperation with infantry is thus necessary. When used in armored bands, the assault guns work closely with armored grenadiers for the same reasons.

The cry for the assault gun, which is understandable from the needs of the present, must not conceal the fact that this proven and necessary weapon only has limited possibilities of use, and cannot stand comparison with the tank. When in numerous areas the superiority of the assault gun over the tank is spoken of this is a subjective judgment, which represents the degree of popularity in the infantry, but not the actual capability. The limited swiveling ability of the weapon (24 degrees against 360 in the tank), the vulnerability in the sides and rear, the very much inferior possibility of vision, and its lack of a machine gun make the assault gun an infantry support weapon, and its use dependent on constant support by infantry. The fewer losses of assault guns compared to tanks are explainable by their stronger front armor and their careful and covered use, yet this weapon lacks the maneuverability and quickness, especially in open country, and thus the ability to fight amid the enemy independently of the infantry. Now that the Panzer IV has the same (80 mm) front armor as the assault gun, it is clearly superior to it on the basis of its other qualities, in that the fighting of the armored weapon in open country, as is the rule in the southern sector, develops more and more into a battle at long ranges, in which maneuverability plays a decisive role. The tank can replace the assault gun, but the latter cannot replace the tank. The assault gun meant help on the spot for the infantry, while the tank brings its relief through closed action against the deep flank or the back of the penetrating enemy, and creates the conditions for a retaking of lost ground by the infantry. The level of development and refined production of the Panzer IV make it indispensable among armored units at this time. Reducing the production of the Panzer IV in favor of the assault gun, that never lets itself be turned for a short time in one direction or another, would mean a weakening of the tank weapon and lead to disadvantageous results.

From the organic structure of the 1<sup>st</sup> *Panzerjäger* and assault guns in the infantry division, I promise myself a decisive increase in defensive capability, and thus also of the fighting spirit of the infantry. The disadvantage of an only transitory lowering of the numbers of army assault artillery and *Panzerjäger* units, on the other hand, must be taken in the bargain, and is also bearable with the maintenance of the tank divisions.

In the future, new *Panzerjäger Abteilungen* will constantly be made with heavy *Panzerjäger* on the basis of the Panther and Tiger chassis, as well as the Hornisse, so that the mentioned disadvantage will be wiped out again.

## Addendum 3

General of the Artillery HQ, 10/19/1943  
At the Chief of the Army General Staff

Has the *Panzerjäger* weapon as a weapon genre still a right to exist? - Conclusions.

Original purpose of the weapon genre:

Creation of mobile *Panzerjäger* units as specialized? Antitank defense. The specialist role went so far that the 3.7 cm Pak did not even have explosive shells at the beginning of the war.

How does antitank defense look on the battlefield today: Everything fires at tanks; from the infantry's cup discharger to the 21 cm mortar. Antitank defense is no longer a matter of one specialized weapon genre just for that, the tactical prerequisite for the existence of such a weapon genre is thus declining.

As a tank destroyer in the true sense only assault guns, tanks, and self-propelled artillery can be seen. The mounted guns of the *Panzerjäger* are too unwieldy to deserve this designation; this is especially true of the 8.8 cm Pak.

The taking over of the *Panzerjäger Abteilung* (except in *Panzer* and *Panzergrenadier* Divisions) in the artillery would mean:

- that the **dismountable Pak** could be made a part of the Artillery as **cannon batteries** wherever a lack of material makes it necessary. Its main task: now, as then, antitank defense.
- that the thus released personnel units of the *Panzerjägerabteilung* can be armed with assault guns for the formation of assault gun units.
- Uniformity of gun development and relief of our highly stressed armament industry.**

The assault artillery is, by the unanimous vote from the front, the most effective helper of the infantry. The assault gun has become the most proven weapon of the war of all modern weapons conceived in peacetime. Examples of successful action:

July 1943: 1880 tanks, 101 of our own losses.  
August 1943: 423 tanks, 18 of our own losses.

For the fighting morale of the Artillery as a weapon genre, it is essential that this specialty—developed as elite—is reserved for them.

(signed) Lindemann



#### Addendum 4

General of the Artillery  
At Chief, Army General Staff  
To the Chief of the General Staff  
Re: Development of Assault Artillery

#### 1. Tactical Significance of Assault Artillery

The assault artillery is actually the backbone of our infantry, which is often set scarcely soluble tasks; as a rule, it brings, wherever it appears, the decision of the battle. Its role cannot be overvalued at all. The verdicts of the commanders of all weapon genres agree here. The effectiveness of the assault artillery depends on:

- a) a technically outstanding weapon, which has been developed by the artillery from the beginning, since 1936, as an armored vehicle for direct support of the infantry.
- b) the fact that the assault artillery personally represents the elite of the great weapon genre of the artillery (1.3 holders of the Knight's Cross per *Abteilung*).
- c) thorough firing training on an artillery basis.
- d) exhaustive evaluation of all tactical and technical combat experience, wherein the assault artillery school at Burg is to be recognized for decisive service.

The Panzer Officer with the Chief of the General Staff has, in his message of 12/6/1943, absolutely determined on the basis of exhaustive statistical documents that the assault gun:

- a) scores the highest enemy losses of all armored vehicles,
- b) has the lowest losses of all armored vehicles,
- c) has the highest percentage of combat ready vehicles of all armored vehicles.

The assault gun developed by the artillery has thus proven itself, corresponding to its original purpose, as the most effective armored weapon in the realm of the infantry.

The assault artillery has already shot down over 12,000 armored vehicles to date.

How the Russians evaluate our assault artillery is shown by an order of the Marshal of the Artillery of 7/2/1943, in which it is said:

The fighting of the enemy assault guns is to be given the greatest importance, and all means are to be used in order to defeat them. It is ordered:

1. Officers and men are to be taught about the assault guns. They must be in a position to distinguish them from tanks.
2. The *Panzerbüchse* riflesmen must be trained particularly in fighting against the assault guns.

3. In fighting against enemy tanks with artillery, whenever possible, the accompanying assault guns are to be spotted, and from the first, fire must be directed at them.

4. The guns used for direct fire must, as long as they do not have to defend themselves, take the assault guns under fire from the start.

#### II. Conclusions

Increasing the production of assault guns—already ordered by the Führer's command.

Tactically, the gun is and becomes divided, for according to the state of 12/1/1943 (total):

54% are in the assault artillery,  
25.3% in the armored forces,  
5.5% are with the tank destroyers in the infantry divisions,  
2.2% are in the *Luftwaffe* field divisions,  
13% are in the *Waffen-SS*.

The weapon recognized as the most effective in the realm of the infantry is organizationally divided up, instead of being kept most strictly together, and being trained uniformly on the basis of gained war experience of the assault artillery. The most effective weapon in the battle of our hard fighting infantry is tactically divided among many weapon genres, and goes without the uniform tactical training and the uniform action in combat, despite all personnel and material prerequisites given for it. It cannot be expected that the greatest possible use is thus derived from it.

In the technical development there is a dualism, since the "heavy assault gun units" are subordinate to the Inspector-General of the Armored Troops, according to his service instructions, but not the light ones. It is to be urged that the entire technical development of the assault artillery remains in one hand. The opposite is partially the case.

It remains to be assured that the assault artillery at this time is to be defined:

- a) in its technical development, since a clear boundary between it and the tank is lacking,
- b) in its organizational structure, since the production is divided.

Therefore, I must suggest the organizational development of a uniformly trained assault artillery:

1. through limiting the amount of assault-gun production that is assigned to the tank and armored grenadier divisions,
2. through transferring the tank-destroyer units, which are free to be rearmed with assault guns to the assault artillery.

3. through clear division of the technical development and responsibility between:

- a) The tank weapon: Tanks (with turret) in Panzer and *Panzergranadier* Divisions for independent tactical and operative action.
- b) the assault artillery: Assault guns (without turret) of all calibers in *Sturmgeschütz Abteilungen* as Army troops for direct cooperation with the infantry.

(signed) Lindemann

Distributor:  
Chef Gen.Stab  
Op.-Abt.  
Org.-Abt.  
Pz.Offz./b. Chef Gen.Stab  
Ausb.-Abt.

#### Addendum 5

General of the Artillery HQ, January 8, 1944

Beim Chef Gen.St.d.H.

Re: Evocative naming of weapons

To Chief Gen.St.d.H./Org. Abt.

Chef H. Rüst und BdeE/AHA In 4

In the armament book, on page G.233, the *Sturmgeschütz* auf Fgst. Pz.Kpf.Wg.IV mit 7.5 cm StuK. 40 L/48 is designated as le.Pz.Jäger, and on page G.241,

*Panzerjäger* auf Fgst. Tiger (P) mit 8.8 cm Pak 43 (Ferdinand) is designated as a *Sturmgeschütz*.

There is a mix-up here. Both designations are confusing, and do not represent the actual nature and tasks of these weapons.

The concept "*Sturmgeschütz*" has become historical. Gen.d.Art. requests that the correction of the designation and rectification in the Armament Book be undertaken.

#### Addendum 6

The Inspector-General of the Panzer Troops HQ, OKH, 1/28/1944

Abt. Ord. No. 250/44 g/Kdos

Re: Memorandum of 1/26/1944

To OKH / Wa Prüf

With the memorandum about the results of the discussion on 1/26/1944, I am in agreement with the following point:

I request that instead of "*Sturmgeschütz* neuer Art", the designation of le.*Panzerjäger*"—le. Pz.Jäger IV and le.Pz.Jäger 38(1)—be used. Since with this designation the main combat task is clearly determined, for:

1.) this weapon, at the Führer's command, will be included in the *Panzerjäger Abteilungen* of the Infantry, Mountain, and Rifle Divisions.

2.) The main combat task is determined by the choice of the caliber length—L/48 or L/70.

(signed) Guedirian

#### Addendum 7

Ob. *Wehrmacht* February 1, 1944

Re: Evocative names for new weapons  
In reference to the Führer-WSTF/Wpu/FuSt No. 193-43 of 11/29/1943.

The Führer has accepted the following evocative names for the Army and *Luftwaffe*:

8.8 cm *Sturmgeschütz*: Porsche *Elefant*  
s.Pz.Jg. auf Fgst. Tiger *Jagdiger*  
s.Pz.Jg. auf Fgst. Panther *Jagdpanther*

The Chief of the *Wehrmacht* High Command

(signed) Jodl *Generaloberst*

#### Addendum 8

General of the Artillery HQ, February 2, 1944

Beim Chef Gen.St.d. Heeres

No. 300/44 g/Kdos

Re: Memorandum of 1/26 and position taken by the Gen.Insp.d.Pz.Tr. Org. No. 250/44 g/Kdos. Of 1/28/1944

To OKH Wa Prüf

Adj. Chef Gen.St.d.H.

Inform: Gen.Insp.d.Pz.Tr.

Gen.d. Inf.

Org.-Abt.

RM für Rüst.u. Kriegspod.

Chef Heeresstab/OKW

Gen. b. Chef H. Rüst und BdeE

I am in agreement with the memorandum of 1/26. As for the position taken by the Inspector-General of the Panzer Troops, may I remark:

The standpoint of the Chief of the General Staff in the question of naming the

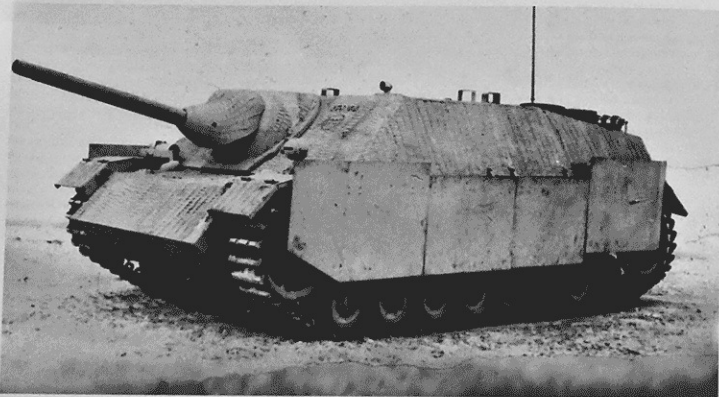
*Sturmgeschütz* n.A. has been expressed in the memorandum Gen.St.d.H./Org. Abt. I/III 18844/43 of 11/13/1943, and is definitive for the Artillery. Objectively it is to be determined:

- a) The *Sturmgeschütz* n.A. is a technical further development of the old *Sturmgeschütz*. By the *Sturmartillerie-Lehrabteilung*, on the basis of the combat experiences of the *Sturmartillerie*, the recommendations for the new design of the *Sturmgeschütz* were turned in to AHA/In 4 and Wa.A. on 10/5/1942, thus months before the creation of the service position of the Inspector-General of the Panzer Troops.

b) On the basis of this line of technical development and the fact, always stressed from the front, that the assault gun—with a record of shooting down over 13,000 tanks—is the most effective armored vehicle in combat, I regret to have to reject the efforts to want to remove from the Assault Artillery its further developed Assault Gun by renaming. This weapon has not deserved this.



Sturmgeschütz IV (assault gun)



Jagdpanzer IV (tank destroyer)

c) As opposed to the ammunition supplying of the front, according to which assault guns have fired 25% of their ammunition at tanks and 75% at other targets of the most varying kind, the designation of "tank destroyer" for an assault gun would concern only a part of its actions.

d) For the infantry, the designation "Sturmgeschütz" is a firm concept: Gen.d.Inf. is therefore for maintaining this designation.

e) It may be assumed with certainty that with greater production, the *Sturmgeschütz* n.A. will also be used in the *Sturmartillerie*, so that it does not appear purposeful to designate such a usable weapon for *Sturmartillerie* as well as for *Panzerjäger* units as "Panzerjäger."

The 7.5 cm L/48 on 38(t) I likewise request to be designated "ie. *Sturmgeschütz*," since in its entire structure and tactical use it is a characteristic assault gun, for which the standpoints c) and d) likewise apply.

It cannot otherwise be comprehended that the Führer as well, at the discussion on 1/26, has decided permanently that the 7.5 cm Pak was to be installed in a 38(t) vehicle similar to an assault gun.

(signed) Lindemann  
General of the Artillery

#### Addendum 9

The Inspector-General of the Panzer Troops 3/23/1944

#### Führer's speech on 3/27/1944 (Part D)

#### Sturmgeschütz equipping

I ask for a decision as to whether the impression is correct that all Infantry Divisions are to be supplied, with priority, with one assault-gun battery each, and that the number of Assault gun Brigades of the Artillery, that was set at 45, is sufficient.

It was reported to me that according to your order, 54 brigades were to be established.

Further, I ask for an order that all armored vehicles, including spare parts and means of recovery, in closest agreement with the Reich Minister for Armament and War Production, are exclusively my subjects.

#### Addendum 10

The Inspector-General of the Panzer Troops 3/31/1944

#### Speech Notice

About the discussion with the Führer  
With *Generaloberst* Jodl and *Generaloberst* Zeitzler  
On March 27 and 28, 1944  
*Sturmgeschütze*

The Führer stressed again his full agreement with the standpoints of the Inspector-General of the Panzer Troops, that the *Panzerjäger Abteilung* of the Infantry Divisions are to be the first to be supplied with assault guns. The Führer considers the number of 45 Assault Gun Brigades to be sufficient.

#### Addendum 11

Excerpts from the War Diary of the General of the Artillery at the Chief of the Army General Staff  
June 4, 1944 Gen.d.Art.b. Chief Gen.StdH

Name giving for Assault Gun new type is again advocated by Org. Abt.

#### Addendum 12

The Inspector-General of the Panzer Troops 6/26/1944  
Note re Führer's speech on 6/26/1944  
Reclassifying *Or.Kpfw.IV* as *Sturmgesch. L/48* or *L/70*.

1) All troop experience reports on hand express uniformly in agreement that the *Panzerkampfwagen* with turning turret be preferred to the Assault Gun for action in the armored units within the Panzer Regiments. No report is known that expresses the opposite.

2) All enemy tank and assault gun types that have appeared to date can be shot down with our present armor piercing weapons, including the 7.5 cm L/48.

3) A switching of Panzer IV production to assault guns would result in the supplies for the existing Panzer IV *Abteilungen* consisting of assault guns, in order to prevent an increase of the units. This would result in our having to unite within the Panzer IV *Abteilungen* again two different types of vehicles, whose combat qualities are basically different.

Therefore, the Inspector-General of the Panzer Troops suggests that the production of Panzer IV tanks, which is just enough at this time to cover the losses of the field *Abteilungen*, be allowed to continue until the production of Panzer V (Panther) is so great that a start can be made on equipping the 2<sup>nd</sup> Panther *Abteilung* within the Panzer Regiments.

As the final goal, Panther production must be raised to approximately 900 Panthers per month.

In addition, it is suggested that as of August, beginning after the supply of the 7.5 cm Cannon L/70 to the Light *Panzerjäger* IV, and as of November, all *Panzerjäger* III/IV (uniform chassis) be armed with the 7.5 cm Pak L/70.

#### Addendum 13

The Inspector-General of the Panzer Troops 6/27/1944  
Decision on Führer's Speech

On the question of changing the Panzer IV to an assault gun, the Führer has decided as follows on the suggestion of *Generaloberst Guderian* and *Hauptdienstleiter* Saur:

The *Panzerkampfwagen* IV will be produced with 300 examples per month until further notice regarding the Fla-Panzer.

All additional *Panzerkampfwagen* IV falling out of production will immediately, beginning with the introduction of troop testing, be armed with 7.5 cm KwK L/70 without turning turrets.

*Hauptdienstleiter* Saur promised to show a rearmed vehicle to the Führer within two weeks. The vehicle shall also, additionally to the tank gun, be equipped with a vertically standing M.P. for all-around fire.

After carrying out the troop testing, a final decision shall be made on the entire question.

*Hauptdienstleiter* Saur promised that by the end of August 75 light *Panzerjäger* IV Vorgang with L/70 will be produced; likewise, by the end of August the first rearmed Panzer IV with L/70.

(signed) Guderian

#### Addendum 14

Excerpts from the War Diary of the General of Artillery as the chief of the Army General Staff  
July 13, 1944

Gen. d. Art. b. Chef Gen. St.H  
Consultation with Chief and *Generalmajor* Polack with Chief of the Inspection-General of the Panzer Troops, *Generalmajor* Thomale, about basic questions on both weapons. Herby it

happens again, the Inspector-General of the Panzer Troops spoke of the promised totality of assault guns, in all questions of the disputed naming, "Sturmgeschütze" or "Panzerjäger," now as before, advocated the designation of "Panzerjäger."

#### Addendum 15

Chief of the Army General Staff Berlin, August 8, 1944

Org. Abt./Gen.-Insp. d. Pz.Tr.

To: Chef H.Rüst u. BdE

Re: Designation of Panzer, *Sturmgeschütz*, and *Panzerjäger*

Gen. St. d. H. requests as a matter of principle the use of the following designations (including listing in "Overview of the Army's Armament State" and in the "General Army Information"):

#### 1 Panzerkampfwagen

- a) Panzer IV with 7.5 cm KwK L/43 and L/48 on Panzer IV chassis as "Panzer IV"
- b) Panzer IV with 7.5 cm KwK L/70 on Panzer IV chassis as "Panzer III/L (A)"
- c) Panzer V with 7.5 cm KwK L.70 as "Panther"
- d) Panzer VI with 8.8 cm KwK L/56 as "Tiger I"
- e) Panzer VI with 8.8 cm KwK L/71 as "Tiger II"

#### 2 Sturmgeschütze und leichte Panzerjäger

- a) StuG with 7.5 cm StuK L/43 & L/48 on Panzer III chassis as "Sturmgeschütz III"
- b) StuG with 7.5 cm StuK L/48 on Panzer IV chassis as "Sturmgeschütz IV"
- c) *Sturmhaubitze* with 10.5 cm StuH L/28 on Panzer III chassis as "Sturmhaubitze"
- d) *Sturmpanzer* with 15 cm StuH 43 on Panzer IV chassis as "Sturmpanzer"
- e) le. Pz.Jg. Vorgang with 7.5 cm Pak L/48 on Panzer IV chassis as "le. Panzerjäger IV"
- f) le. Pz.Jg. Vorgang with 7.5 cm Pak L.70 on Panzer IV chassis as "Panzer IV/L (V)"
- g) le. Pz.Jg. 38(t) with 7.5 cm Pak L/48 on Panzer 38t chassis as "le. Panzerjäger 38t"

#### 3 Schwere Panzerjäger

- a) s. Panzerjäger with 8.8 cm Pak L/71 on Panther chassis as "Jagdpanther"
- b) ss. Panzerjäger with 12.8 cm Pak L/55 on Tiger II chassis as "Jagdtiger"

(signed) Guderian

## Technical Data

### Manufacturer

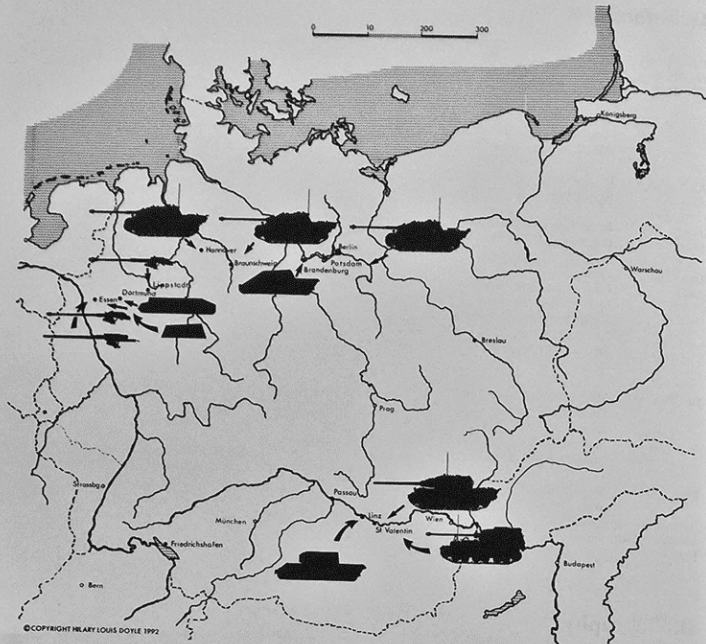
*Jagdpanther*  
1944-45  
D 655/60, 11/1/1944  
Maybach HL230FP3 2  
V-12  
130 x 145  
23095  
2500/3000  
600/700  
drop  
7+1 roller  
4 Solex 52 IFF 40  
12-11-8-5-10-3-  
7-6-11-2-9-4  
Bosch BPD 6/24  
Bosch GTLN 700  
2/12/150  
Pumps  
Liqud  
Dry plate  
ZF AK 7-200  
7/1  
tracks, front  
8.4  
55  
road 250, off 100  
Single radius  
10.0  
torsion bars, transv.  
mech., hydr. suppt.  
Argus disc  
Drive  
Box  
2610  
Kgs 64/660/150

**Track ground contact**  
Links per track 86  
Track width 660  
Ground clearance mm 560  
Dimensions mm 9870x3270x2715  
Ground pressure kg/cm<sup>2</sup> 0.87  
Fighting weight kg 45,500  
Load limit kg 2000  
Crew 5  
Fuel consumption road 280, off 700  
Fuel capacity liters 720  
Armor: hull front 80 mm  
Hull sides 45 mm  
Hull rear 40 mm  
Body front 80 mm  
Body sides 45 mm  
Body rear 40 mm  
Primary armament 8.8 cm Pak 43 L/71  
Other armament 1 MG 34  
Ammunition supply 57 rounds  
Grade climbing 30 degrees  
Step climbing 900 mm  
Fording 1550 mm  
Trench crossing 2450 mm  
Notes (Sd.Kfz. 173)

**Nibelungenwerk**  
*Jagdiger*  
1944-45  
D 656/1, 8/1/1943  
Maybach HL120TRM  
V-12  
105 x 115  
11867 x 2  
2600  
265 x 2 = 530  
drop  
7 roller  
2 Solex 40 IFF 11  
1-12-5-8-3-10-3  
6-7-2-11-4-9  
Bosch BNG 4/24  
Bosch GOL 300/12  
4/12/120  
Pumps  
Liquid  
Gas-electric  
Porsche-Siemens  
3/3  
tracks, rear  
16.75  
41.5  
road 150, off 90  
Electric  
Torsion bars, transv.  
Electric  
Porsche-Siemens  
Drive  
Steel road wheels  
2680  
Kgs 64/640/130

4175 mm  
109  
640  
480  
8140x3380x2970  
1.23  
68,500  
2000  
6  
1200 (Anhaltswert)  
540 x 2 = 1080  
100 + 100 mm  
80 mm  
40 mm  
200 mm  
80 mm  
80 mm  
8.8 cm Pak 43 L/71  
1 MG 34  
55 rounds  
2 degrees  
780 mm  
1000 mm  
2640 mm  
(Sd.Kfz. 184)

**Nibelungenwerk**  
*Jagdiger*  
1944-45  
D 656/1, 11/1/1944  
Maybach HL230FP30  
V-12  
130 x 145  
23095  
2500/3000  
600/700  
drop  
7+1 roller  
4 Solex 52 IFF 11 D  
12-11-8-5-10-3-  
7-6-11-2-9-4  
Bosch BPD 6/24  
Bosch GTLN 700/12  
2/12/160  
Pumps  
Liquid  
Wet plate  
Maybach OLVAR  
8/4  
tracks, front  
12.56  
41.5  
road 170, off 120  
Two-radius HS L-801  
4.16  
Torsion bars, transv.  
mechanical  
Argus disc  
Drive  
Stepped steel rd. wh.  
2790  
Kgs 73/800/300 (H),  
Gg 24/800/300 (P)  
4240 mm  
94  
800  
490  
10654x3625x2945  
1.06  
75,500  
2000  
6  
road 800, off 1100  
860  
150 mm  
80 mm  
40 mm  
250 mm  
80 mm  
80 mm  
12.8 cm Pjk 80 L/55  
1 MG 34  
40 (separated)  
35 degrees  
880 mm  
1750 mm  
2500 mm  
(Sd.Kfz. 186 with  
Henschel run-gear



Locations of manufacturers

## Manufacturing Firms

Components	Firm	Code	Components	Firm	Code
<i>Jagdpanther</i>	Mühlenbau und Industrie AG, (MIAG), Braunschweig	bal	Hull & body	Friedrich Krupp AG, Essen	bwn
	Maschinenfabrik Niedersachsen GmbH *MNK), Hannover	csH	Generators	Siemens-Schuckert AG, Berlin	azg
	Maschinenbau und Bahnbedarf (MBA), Potsdam-Drewitz	???	Electric motors	Siemens-Schuckert AG, Berlin	azg
8.8 cm PaK 43/3 L71	Dortmund-Hoerder Hüttenverein AG, Lippstadt works	amp	HL 120 TRM	Maybach-Motorenbau GmbH, Friedrichshafen	cre
<i>Jagdpanther</i> Hull	Brandenburger Eisenwerke GmbH, Brandenburg/Havel	cwb	<i>Jagdiger</i>	Steyr-Daimler-Puch AG (Ni-werke) Nibelungenwerk, St. Valentin	hhv
Gearbox AK 7-200	Zahnradfabrik Friedrichshafen AG, Friedrichshafen (ZF)	drb	12.8 cm PaK 44 L/55	Friedrich Krupp AG, Essen	bwn
	Lanz AG, Mannheim	bqk	12.8 cm PaK 44 mount	Krupp Bertawerk AG, Breslau	mrf
	Zahnradfabrik Augsburg, ex-Joh. Renk, Augsburg	amf	<i>Jagdiger</i> hull	Eisenwerke Oberdonau GmbH, Linz	kmy
	Steyr-Daimler-Puch AG, Graz	kur			
HL 230 P 30	Maybach-Motorenbau GmbH, Friedrichshafen	cre	Olvar gearbox	Zahnradfabrik Friedrichshafen AG, Waldwerke Passau	oap
	"Nordbau Bordsdeutsche Motorenbau GmbH, Berlin	nct	Adlerwerke AG, Frankfurt am Main	arh	
	Auto-Union AG, Chemnitz	aam	HL 230 P 45	Maybach-Motorenbau GmbH, Friedrichshafen	cre
Ferdinand	Steyr-Daimler-Puch AG Nibelungen Works, St. Valentin	hhv	Auto-Union AG, Chemnitz	aam	
8.8 cm StuK 42 L71	Krupp	???			

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## Abbreviations

a/A	old type	LHB	Linke-Hofman-Busch
AHFAg K	General Army Office	l. I. G.	Light infantry gun
AK (Krupp)	Artillery Design Bureau	Lkw	Truck
AOK	Army High Command	LWS	Amphibious tractor
ARW	Eight-wheel vehicle	m	Medium
A-typen	All-wheel drive types	MAN	Machine Factory Augsburg-Nürnberg
BMW	Bavarian Motor Works	MG	Machine gun
(DB)	Daimler-Benz	MP	Machine pistol, submachine gun
DMG	Daimler Motor Company	MTW	Personnel transport vehicle
E-Fahgestell	Uniform chassis	Mun.Pz.	Armored ammunition carrier
E-Pkw	Uniform personnel car	n	Revolutions per minute
E-Lkw	Uniform truck	n/A	New type
FAMO	Vehicle and Motor Company	NAG	National Automobile Company
Fgstr	Chassis	(o)	Stock, civilian model
FF-Kabel	Field phone cable	Ob. d. H.	Commander of the Army
FH	Field howitzer	O. H. L.	Highest Army Command
FK	Field cannon	O. K. H.	Army High Command
Flak	Anti-aircraft gun	O. K. W.	Military High Command
FT.	Radio-telegraph	Antitank gun	
Fu	Radio	Armored (Panzer) Division	
Fu Ger	Radio set	PF	Engineer vehicle
Fu Spr Ger	Radio speaker	Pkw	Car, personnel car
g	Secret	Pz. F.	Armored ferry
Gen. St. d. H.	Army General Staff	Pz. Kpfwg.	Tank, armored combat vehicle
Gengas	Generator gas	Pz. Spwg.	Armored scout car
g.Kdos	Secret command matter	Pz. Jg.	Tank destroyer (Panzerjäger)
gp	Armored	Pz. Bef. Wg.	Armored command car
g. RS	Secret government matter	(R)	Tracks, tracked vehicle
gl	Off-road capable	R/R	Wheeled/tracked vehicle
Gw	Gun vehicle	(RfB)	Rheinmetall-Borsig
(H)	Rear engine	RS	Tracked towing tractor
Hannomag	Hannover Machine Company	RSg	Mountain tractor
HK	Halttrack	RSO	Tractor East
HWA	Army Ordnance Office	RV	Targeting communication
HZA	Army Ordnance Dept.	Sankra	Medical corps vehicle
ID.	Infantry division	s	Heavy
I.G.	Infantry gun	sFH	Heavy field howitzer
In.	Inspection	schg.	Running on rails
In. 6	Motor Vehicle Inspection	Schlip.	Towing tractor
K	Cannon	schf	Amphibious
KD	Krupp-Daimler	Sd.Kfz.	Special vehicle
K. D.	Cavalry Division	Sf. St	Self-propelled gun mount
Kdt.	Strength Through Joy (Nazi club)	S-Typen	Rear wheel drive
K. d. K.	Commander of Motorized Troops	SnK	Pointed shot with core
K. Flak	Motorized anti-aircraft gun	SPW	Rifle troop transporter
Kfz	Motor vehicle	SSyms	Railroad transport car
k	Small	s. W. S.	Heavy military tractor
KM	Ministry of War	StuG	Assault gun
KP	Motorized limber	StuH	Assault howitzer
(Kp)	Krupp	StuK	Assault cannon
Krad	Motorcycle	Tak	Antitank gun
Kfz. Zgm.	Motor tractor	TF	Radio frequency
KS	Fuel injection	Tp	Tropical version
Kw	Motor vehicle, or tank	Verskraft	Vehicle testing dept.
KrKW	Motorized ambulance	ve	Fully desensitized
KOM	Motor bus	vimax	Top speed
ll	Extra-light	vo	Muzzle velocity [raised o]
L/	Caliber length	Vs.Kfz.	Test vehicle
le	Light	VK	People's tracked vehicle
le FH	Light field howitzer	ZF	Gear Factory, Friedrichshafen
le FK	Light field cannon	ZRW	Ten-wheel vehicle
l. F. H.	Light field howitzer	Zgkw	Towing vehicle
le. I. G.	Light infantry gun	WaPrüf., WaPw	Weapon testing dept.
le. W. S.	Light military tractor	wg	Amphibious