

= Heuschrecke 10 =

The Heuschrecke 10 (English : Grasshopper 10) was a prototype self @-@ propelled gun and Waffenträger (English : " Weapon carrier ") developed by Krupp @-@ Gruson between 1943 and 1944 . The official designation of the vehicle was 105 mm leichte Feldhaubitze 18 / 1 L / 28 auf Waffenträger Geschützwagen IVb and was to be built in Magdeburg , Germany . The Heuschrecke featured a removable turret which could be deployed as a pillbox or towed behind the vehicle as an artillery piece .

Krupp produced only three prototypes from 1942 ? 1943 . The Heuschrecke initially made use of a shortened Panzerkampfwagen IV (Panzer IV) chassis , but it was later switched to the Geschützwagen IV chassis , developed for the Hummel self @-@ propelled gun . Mass production of the Heuschrecke 10 was scheduled to start in February 1945 , but never occurred .

= = Development = =

= = = Precursor = = =

Towards the end of September 1939 , Krupp designed the " first real self @-@ propelled artillery piece " , the Sonderkraftfahrzeug 165 / 1 (Special Purpose Vehicle 165 / 1 , abbreviated Sd.Kfz. 165 / 1) . The Sd.Kfz. 165 / 1 was similar in design to the Heuschrecke , but did not have the chassis @-@ mounted launching mechanism to remove the turret . After a series of tests , the Sd.Kfz. 165 / 1 was accepted by the Wehrmacht in early January 1940 . In 1941 , Krupp built prototype vehicles armed with the 105 mm leichte Feldhaubitze 18 / 1 L / 28 (light field howitzer 18 / 1 L / 28 , abbreviated leFH 18 / 1 L / 28) cannon based on a modified Panzer IV chassis . The prototypes were fitted with a smaller six @-@ cylinder Maybach HL66P engine , which had a power capacity of 188 hp (140 kW) . Although 200 vehicles were ordered , Krupp completed only 10 prototypes in the final four months of 1942 . These saw service on the Eastern Front .

= = = Prototypes = = =

The design phase of the Heuschrecke began in 1942 , when Krupp conceived a new type of self @-@ propelled artillery . In 1943 , Krupp produced three prototypes , with serial numbers from 582501 to 582503 , which were designated as either Heuschrecke 10 or Heuschrecke IVb .

The Heuschrecke designed by Krupp was similar in design to a vehicle built by Alkett and Rheinmetall @-@ Borsig , the 105 mm leFH 18 / 40 / 2 auf Geschützwagen III / IV , which was ready in March 1944 . The competing Rheinmetall @-@ Borsig model had overall slightly better performance than that of Krupps ' vehicle . It was decided , however , to utilize an alternate chassis on the Rheinmetall @-@ Borsig model , that of the Panzer IV . Production was to start in October 1944 , but the chassis choice was changed to that of the Geschützwagen IV in December 1944 . Production , in Magdeburg , was then intended to commence in February 1945 , but none were produced .

= = = Cancellation = = =

The Nazi high command thought that the production of the Heuschrecke would disrupt the production of the needed Panzers . The quantity of materials required for the construction of weapon @-@ carriers were so great that companies like Krupp were told to halt production . The majority of weapon @-@ carriers never left the production stage . The Heuschrecke was seen as interesting by the General Inspector of the Panzer Troops , Heinz Guderian , however , Guderian agreed that their development was not worth the disruption to tank production . The development of the Heuschrecke was therefore canceled in February 1943 .

= = Design = =

= = = Turret = = =

The distinguishing feature of the Heuschrecke was its removable turret . A lifting gantry attached to the chassis could remove the turret for use on concrete fortifications or the ground . Although the howitzer could equally be fired from the chassis , the vehicle was designed to carry the artillery piece to a firing emplacement for removal before usage . The turretless vehicle could be used as an ammunition carrier or recovery vehicle . The prototype turret was armed with the 105 mm leFH 18 / 1 L / 28 . The production models , however , were to have the 105 mm leFH 43 L / 28 .

= = = Chassis and Engine = = =

The Heuschrecke consisted of a welded steel hull , with thickness ranging from 10 to 25 millimeters , and sloped armour to deflect incoming fire more effectively . It had a large ammunition stowage , making it one of the chosen ammunition @-@ carriers to help alleviate losses of ammunition that could not otherwise be transported . The original prototype engine was the twelve @-@ cylinder Maybach HL90 , but for the production models , the twelve @-@ cylinder Maybach HL100 was chosen .

= = Surviving vehicle = =

It is believed only one Heuschrecke 10 survived the war . This sole survivor was originally on display at Aberdeen Proving Grounds . It was transferred from there to the Fort Sill Field Artillery Museum in Fort Sill , Oklahoma along with several other World War II self @-@ propelled guns . Shortly after its arrival at Fort Sill in 2012 , the Grasshopper 10 was restored by the Fort Sill Directorate of Logistics paint shop .

= = Specification comparison = =