

## Heavier armor

In keeping with his typical thought patterns, Hitler was bent on increasing the defensive capabilities of Assault Guns so that they could be deployed as mobile pockets of resistance. On May 7, 1942 he gave the order to investigate whether the frontal armor of the Assault Gun could be increased to 80 mm.<sup>24</sup> Implementing this idea was not so easy as the hull manufacturers needed a lead time of several months ahead of the assembly plants. Hitler, however, did not let up and repeatedly insisted:

»The Führer demands again accelerated investigation into the extent to which the bow of the Assault Gun can be reinforced to 80 mm, initially by welding on frontal armor. He emphasizes that, even if the added weight of around 450 kg affects speed somewhat, this is not so serious. The Assault Guns are to be gradually withdrawn from the tank units and, in their intended role with the infantry, greater speed is not required.«<sup>25</sup>

»Reinforcing the Assault Guns and Tank Mark IV to 80 mm frontal is to be accelerated. The mid-July deadline is too late.«<sup>26</sup>

Indeed, towards the end of June 1942 the first eleven Assault Guns with welded-on 30 mm plates were delivered. The entire July contingent was equipped accordingly<sup>27</sup> and promptly as shown by the following schedule:<sup>28</sup>

	Out- put May	-3.	-8.	-13.	June			sum	-8.	July		sum	Out- put Aug.
					-18.	-23.	-28.		-18.	-28.			
50 mm Frontal	79	3	12	14	10	10	10	59	-	-	-	-	-
80 mm Frontal	-					5	6	11	16	18	21	55	70

Hitler was convinced of the value of Assault Guns and, as a result, demanded in September 1942 a new version with a yet more powerful gun, greater chassis clearance, wider tracks and even stronger frontal armor.<sup>29</sup> His demands were met

<sup>24</sup> Führerprotokoll, 7.5.1942, Pt. 39

<sup>25</sup> Führerprotokoll, 13.5.1942, Pt. 27

<sup>26</sup> Führerprotokoll, 4.6.1942, Pt. 12

<sup>27</sup> OKH, Anlage zu Wa Stab 1441/42 g.Kdos. : Liste der abgenommenen Waffen und Geräte im Berichtsmonat Juli 1942 (abgeschlossen am 31.7.1942) : [8.1942] und OKH, Beauftragter des WaA für das Panzerprogramm, 800/42 g.Kdos. : Termin-Befehl Nr.8 (Stand vom 15.6.42) : 20.6.1942

<sup>28</sup> RMinfBuM [vermutlich], Geheime Reichssache : Ausstoss-Übersicht : 5.6.1942

<sup>29</sup> Führerprotokoll, 9.9.1942, Pt. 10

at least partially from 1944 onwards with the appearance of the Jagdpanzer IV and the »Jagdpanther«.



StuG III Ausf F (L/48) / Troops believed that additional spare tracks on the bow would reinforce the armor / Alkett, 6.1942

The code name for the StuG with 50 mm frontal armor was »Oswald a«, while that with 80 mm armor (50 mm basic armor and 30 mm added) was »Oswald b«.<sup>30</sup> Beginning in October 1942, additional plates were bolted onto the basic armor as this made assembly easier than by welding. However, the tapered studs on the bow were so weak that when hits were taken in combat, substantial portions of these supplementary plates were lost.<sup>31</sup>

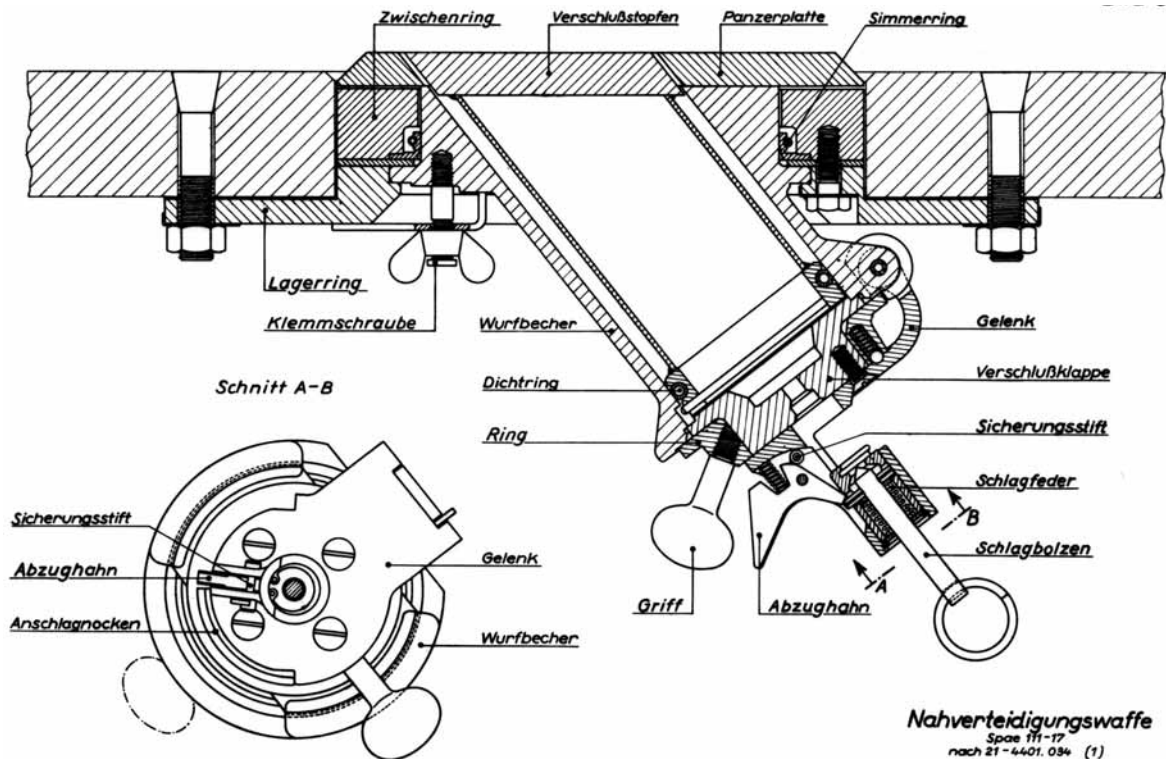
Effective May 1943, StuG hulls supplied by Alkett had 80 mm basic armor; from July onwards the same applied to vehicles from the »Mühlenbau und Industrie AG« (Miag) company. Secondary armor was no longer needed.

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<sup>30</sup> OKH, Anlage zu Wa Stab 1441/42 g.Kdos. : Liste der abgenommenen Waffen und Geräte im Berichtsmonat Juli 1942 (abgeschlossen am 31.7.1942) : [8.1942]

<sup>31</sup> StuG Abt 177, Abt Ic, 277/43 geh. : Erfahrungsbericht 26.3.-31.8.1943 : 28.8.1943

were ready on time, or in sufficient quantities. By July 1944 there were still no mounts available for the rotating machine gun;<sup>58</sup> even after that and right up to the end of the conflict there were never enough mounts to match Assault Gun output. As late as October, there were insufficient point defense weapons to equip all StuG. Where necessary, the corresponding apertures in the roofs were closed off with bolted down plates. Hence, Hitler's hustling had achieved a result, albeit a negative one.



Cross-section and view of the controls of the point defense weapon / This illustration is taken from drawings of the PzKpfw »Maus«. On the StuG the weapon was installed without the spacer ring [Zwischenring] as its superstructure roof was much thinner than that of the »Maus«.

## Development trends

By the end of 1943 it had become evident that existing Assault Guns would soon no longer be able to match the requirements of the forces operating them. At the turn of the year 1943/44 there were still plenty of ideas around and several options available to improve the weapons system. Germany's economic strength was still great enough in 1944 to massively increase the output of existing de-

<sup>58</sup> Nachrichtenblatt der Panzertruppen, Dezember 1944, S. 21

## Development trends

signs, but its development potential was already close to exhaustion. Consequently, many of those ideas could not be developed to maturity or implemented.

Yet another boost in weaponry effectiveness was achieved in 1943 by a further lengthening of the 7.5 cm barrel and a still larger round. This 7.5 cm KwK 42 L/70 was used with considerable success in the PzKpfw »Panther« battle tank; it represented the achievable optimum at the time. Another derivative was the 7.5 cm StuK L/70, but the StuG III was never equipped with it because lack of space in the fighting compartment and the weight of the weapon prevented it from being installed. In January 1944 a decision was taken:<sup>59</sup>

»7.5 cm L/70 is to be installed in the Pz.Jäg. Vomag and the new model Assault Gun.«

This new weapon was installed in the Jagdpanzer IV from August 1944 onwards.

In the military staffs, thoughts were turning to the future. At the turn of the year 1943/44 the Chief of General Staff of the Army ordered his Organization Branch to produce a »Study on Armaments 1944«. <sup>60</sup> This stated among other things that two models should be deleted from the increasing number of Assault Gun types. A listing of current and future models was set out:

»Item No.	Current Equipment	Remarks	Item No.	Future Equipment	Remarks
1	Stu.Gesch. 7.5 k III		1	Stu.Gesch. 38(t)	Under developm.
2	Stu.Gesch. 7.5 l III				
3	Stu.Gesch. 7.5 l IV (stop-gap)				
4	Stu.Gesch. n.A. (7.5 L/48 IV)		2	Stu.Gesch. n.A. (7.5 L/48 III/IV)	Later Stuka L/70
5	Sturmhaubitze 10.5 L/28 III		3	Stu.Haubitze 10.5 cm L/28 IV	
6	Sturmpanzer 15 cm L/12		6	Sturmpanzer 15 cm L/12«	

Chronological remarks on those visions for the future:

1. Although no longer being produced for some considerable time, there were still a number of StuG III with the short-barreled gun in reserve.

<sup>59</sup> OKH, WaA, Wa Prüf : Ergebnis der Besprechung beim Führer am 26.1.44 über s.Pak und Artillerie : 26.1.1944

<sup>60</sup> OKH, Org.-Abt. (IIIa), 1183/44 g.Kdos.Chefs. : Studie über Rüstung 1944 : 26.1.1944