

**Group-Build
References Keyed
to
Instruction Steps**

**Part 2 of the Group-Build
Special Supplement**

Reference Illustrations Keyed to the Part Number and / or Step

Out of the box, the kit builds up into one of the StuG IV's manufactured between Dec. '43 and about Apr. '44. It does require Zimmerit, which was applied to all the StuG IV run until mid-late Sep. '44.

The first major modification to the StuG IV occurred around Apr.-May '44 when the driver's periscopes were re-angled to eliminate "dead-space" in his view when using them. This change apparently allowed the driver's hatch to be enlarged and simplified. Sometime soon thereafter, the rain deflector / gutter behind the driver's compartment was added.

Later, in the May-Jun timeframe, the external MG (*Rundumfeuer* MG) and close-defense weapon (*Nahverteidigungs Waffe*) mounts were added. This necessitated a rearrangement in the loader's hatches to avoid a clearance problem with the new MG. However, because of shortages, the weapons were not universally installed until sometime later. (As far as I can tell, they appear consistently on vehicles photographed after the Summer of '44.)

In Jun '44, the sockets for the maintenance *Pilzen* began to be installed. There were a couple of variations in the layout of these mounts. Also, units in the field were authorized to install these on earlier vehicles, so some of the variations seen in locations might be because of where the units and not the factories welded them on.

The next major change in appearance was the adoption of the *Flammvernichter* exhausts. These began to be installed in Aug '44.

As I said earlier, in Sep '44, the Zimmerit was no longer applied to the StuG IV (in fact this change applied to all German armored vehicles after that date).

At some, unspecified date (i.e. a date not recorded in any of my references), a "hold-open" latch was installed on the driver's hatch. This change was also authorized for retroactive installation by units in the field.

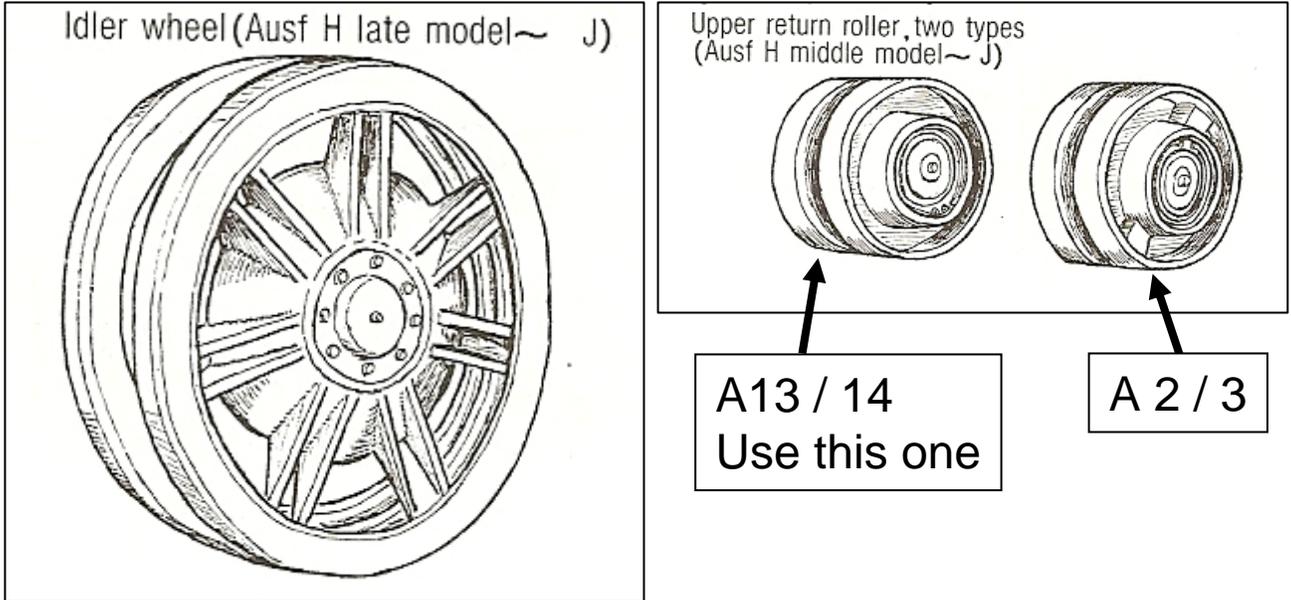
A very late change was the modification of the ring around the top of the commander's cupola to allow his hatch to lay flat.

Finally, those very-late Pz IV J modifications, like the late convoy tail light and three, vice four, return rollers, extended hull side plates drilled for towing, etc. were incorporated in the StuG IV production. Just like these changes were not universally adopted for the Pz IV, they also don't seem to appear universally on the StuG IV. I couldn't find any photos of the *von Thoma* (wire mesh) *Schurtzen* installed on a StuG IV. This doesn't mean that it never was, just that I couldn't find any photos of it.

The kit provides several building options for the basic, out-of-the-box subject. I'll address those next.

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 1: The first options in the instructions are either the cast or welded, tubular idler wheels. The StuG IV initial / early production vehicles all seemed to have to cast idler, parts A11/7 + MA9. However, the evidence is clear that both types of idler wheels were used on Pz IV H~J and on the StuG IV.

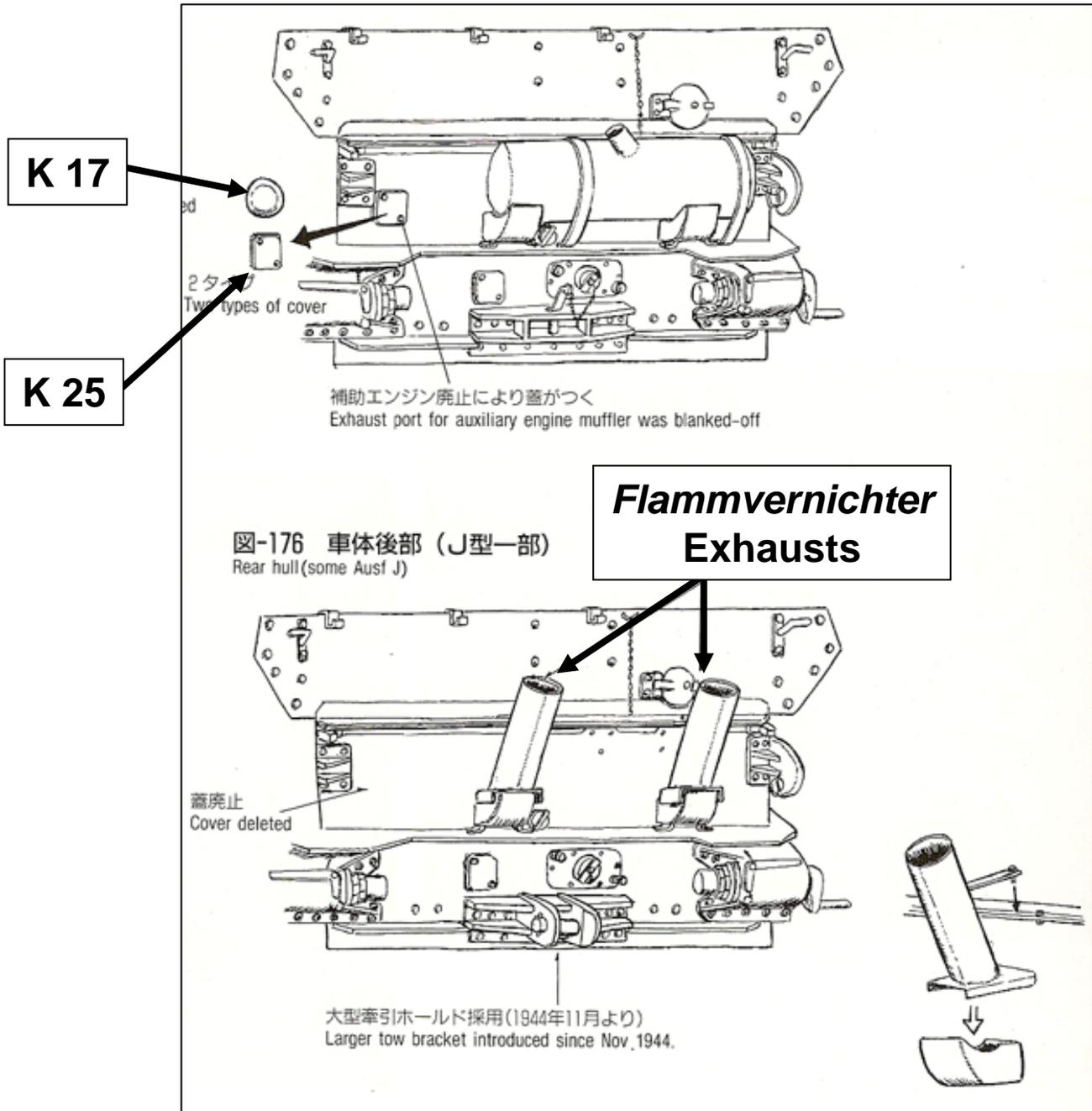


Step 1 also offers the options of two kinds of all-steel return rollers: A14/13 or A 2/3. I looked through all of my references and could only find the A 2/3 option in use on the two *Hummel*, 15cm museum exhibits at Samuer and the *Wehrtechnische Sammlung*. I could not find a single operational photo of its use on any Pz IV variant, much less on a StuG IV.

In Step 2, you have the option of parts K 17 of K 25. K 25, the bolted on auxiliary muffler exhaust hole cover is correct for the initial – early StuG IV. As production went along, the hole was welded shut with a circular piece like K 17, and then finally, the opening was no longer made in the Pz IV-series hulls.

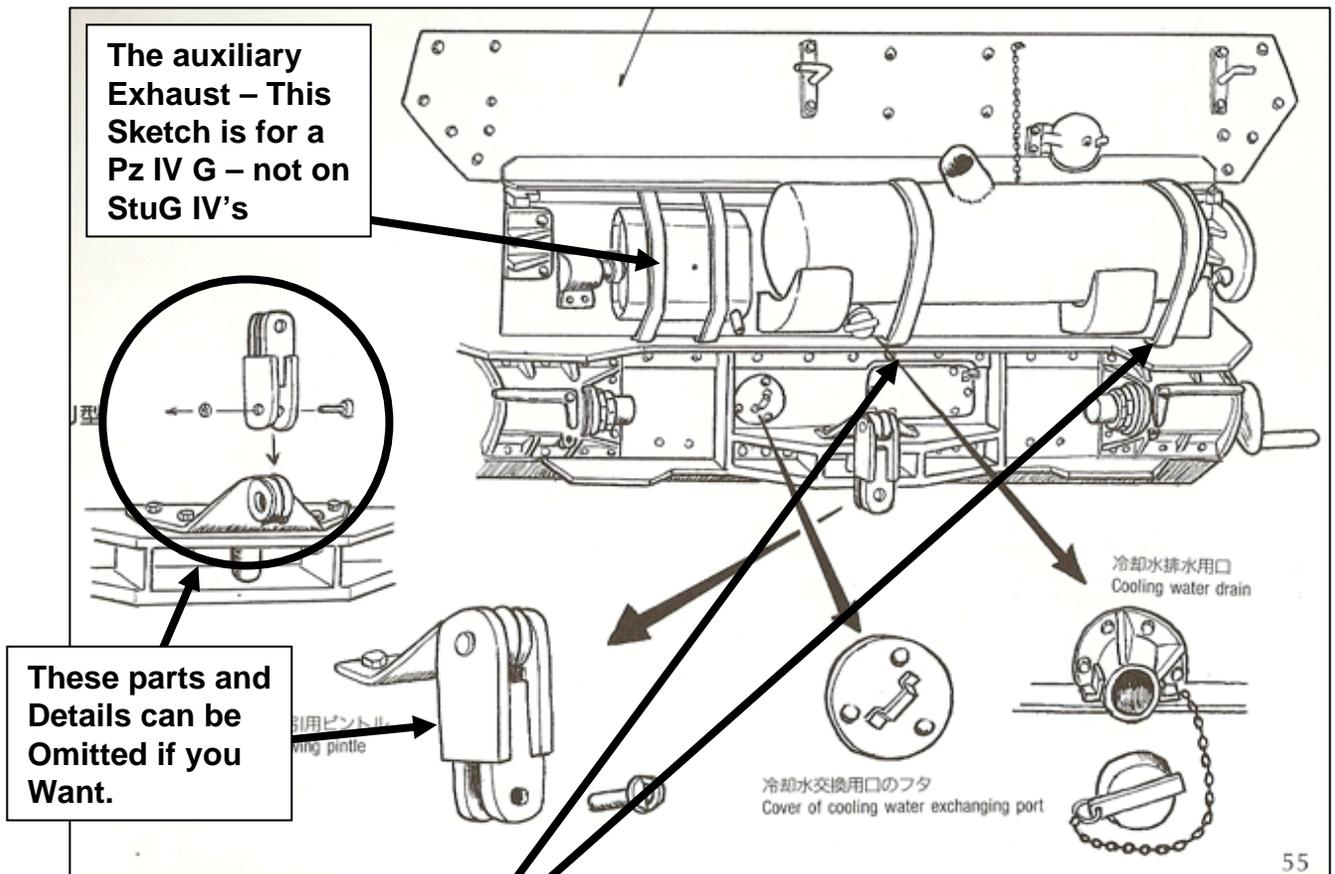
Reference Illustrations Keyed to the Part Number and / or Step (cont.)

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Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 2: Here you also have the possibility of adding or omitting the towing shackle added to some Pz IV G~H hulls. The kit parts H 27, 26, 23, B 9, and B 13 are correct for at least some of the initial – early StuG IV. However, they were not universal even on the Pz IV. You can omit the parts H 26 and H 13 and remove the details from the top of part H 23 for variation. Alternatively, as shown on the previous page, you can add the late bracket for a tow-bar.



Step 5: These are the straps that hold the exhaust on. In **Step 5** they are represented by parts H 34 and H 35. Note that the real thing was a metal strap that was bolted on the rear hull at either end. The kit parts do not represent the under-cuts and open space of the actual straps and can easily be modified by replacing the strap portions.

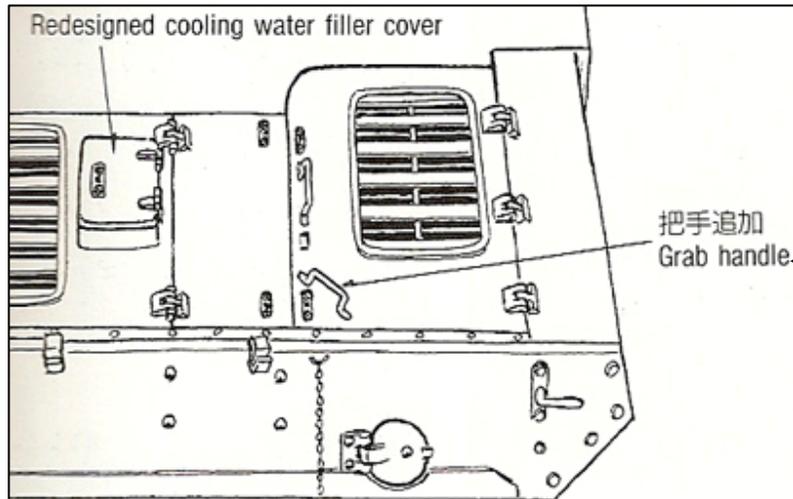
Steps 3 and 4: There are no real options here. Just build as per the instructions. (You could add keeper-chains on the ends of the towing clevis pins, A 30, if you want.)

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 5 (cont.): You can refer to the drawings on the previous two pages for other small details that you could add to the hull rear. The *Flammvernichter* exhausts are a necessity if you build a vehicle produced after Aug. '44.

Step 6: No additional info not already covered earlier.

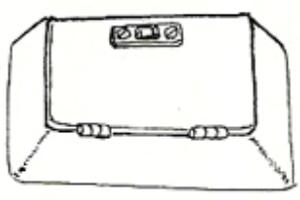
Step 7: Note that later vehicles (I couldn't find a dated change) used the square edge vice the slanted edge radiator filler cover box, part H 42.



I couldn't confirm this addition for the StuG IV.late models

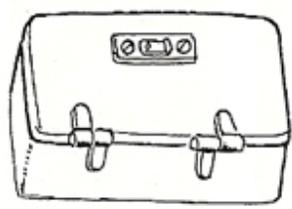
部

図-174 冷却水注入口カバー
Cooling water filler cover



A~H型
Ausf A~H

H 42

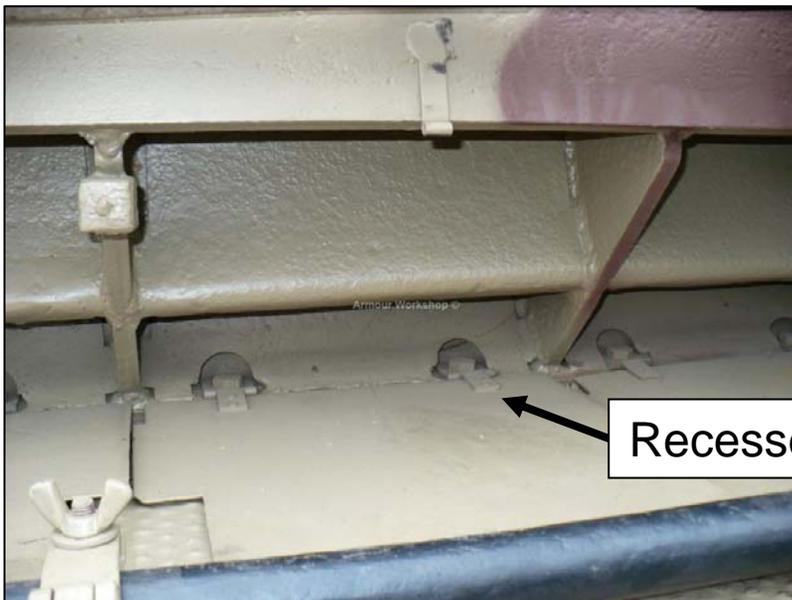


H型後期~J型
Ausf H late model~J

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 7 (cont.): This step also gives you the option of parts H 44 / 48 or H 36 / 40. These are two different designs on the bottom bolted edge of the cooling air outlet louvers.

I could only find photos of the recessed bolt head option, parts H 36 / 40. I found a good photo of these on a Pz IV G, and here are photos of the same parts on a StuG IV (late model) in the museum in Poznan, Poland.



Note that the “recessed” look on the bolts is really because of a sheet metal air Deflector, and so the kit option, H 44 / 48, might simply represent missing parts.

(Photos courtesy of Anthony Swards)

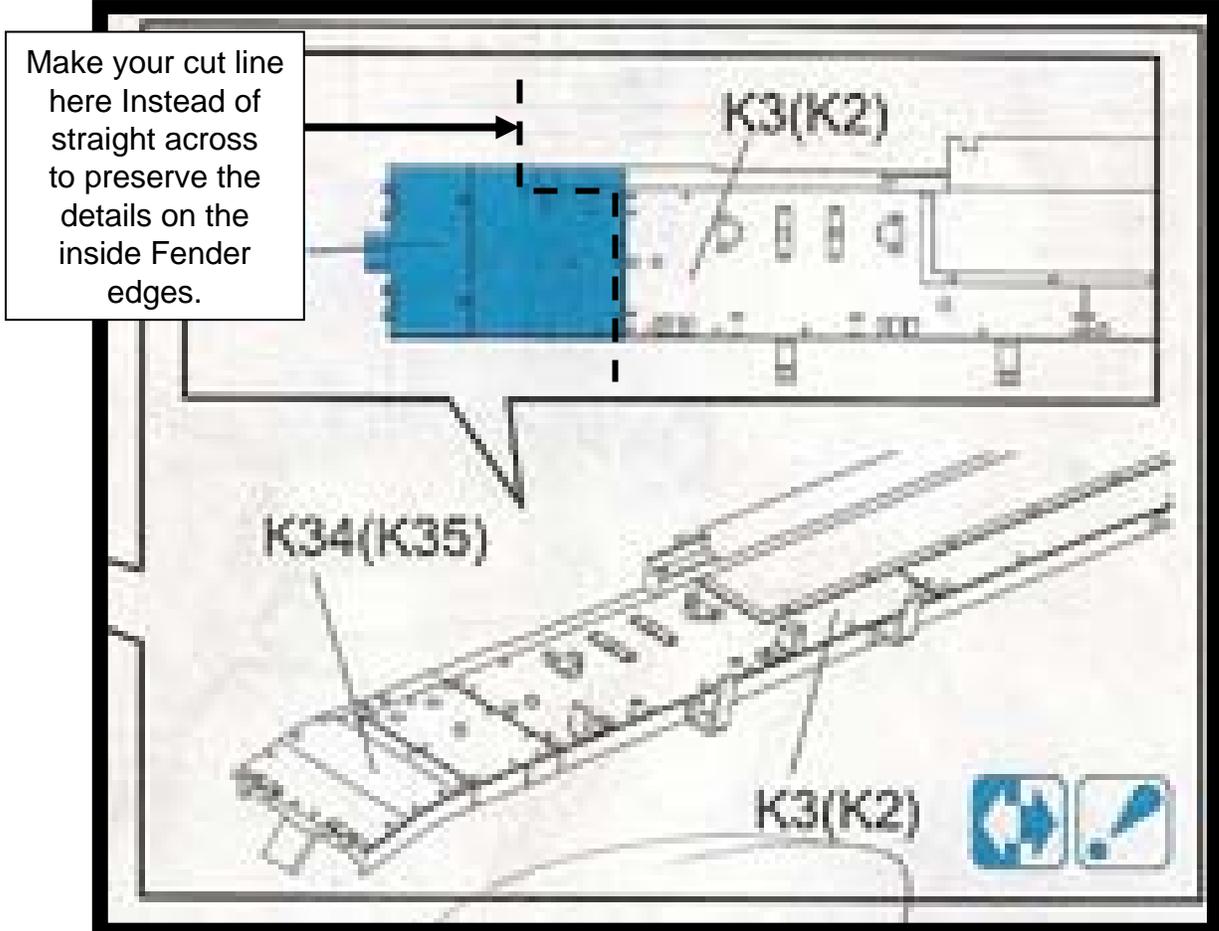
Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 8: There are a lot of things going on here in **Step 8**. One option is the replacement of the front end of each kit fender (parts K 2 and K3). The kit fenders represent one of two Pz IV H~J variations. They have angled bends going down to the folding flaps (parts H 10 and H 11) and no tread pattern on the last portions.

The optional part are K 34 and 35 which represent the standard Pz IV front fender ends which curve down to the front flaps and have tread pattern on the last portions.

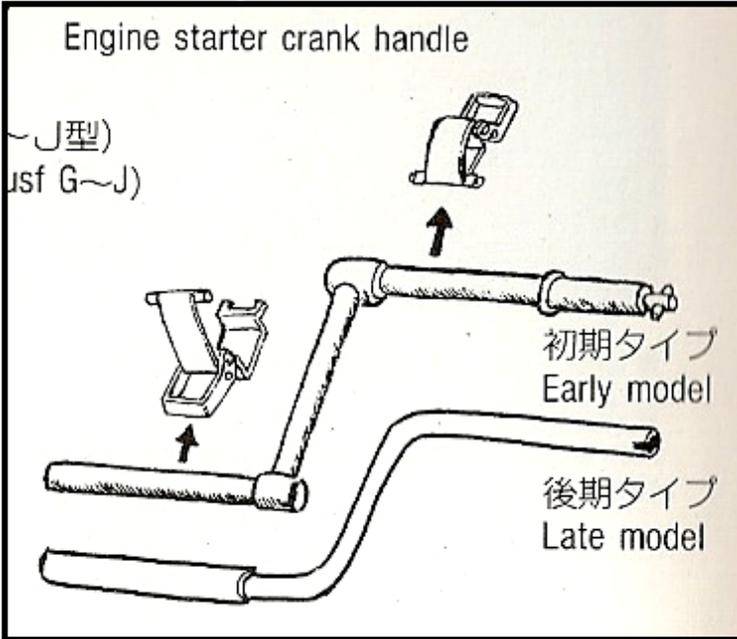
As far as my research could prove, either fender variation was used on Pz IV based vehicles from about Dec. '43 until the end of the war. My guess is that these differences are just minor sub-contractor variations, and whether a Pz IV based vehicle has one or the other simply depended on what parts were on-hand when it rolled down the assembly line. (I could easily be wrong about this, but I simply couldn't find any discernable pattern on which vehicles had the angled fenders and which had the curved ones.)

Having said all of the above, the StuG IV's seem to have predominantly the angled fenders as represented by the un-modified parts K 2 and K 3. If you want to add the curved fender ends, don't make a straight cut across the fenders, but rather make "L-shaped" cuts following the "panel lines" in the fenders and matching cuts on the replacement parts K 34 and K 35. This will preserve the details on the parts.



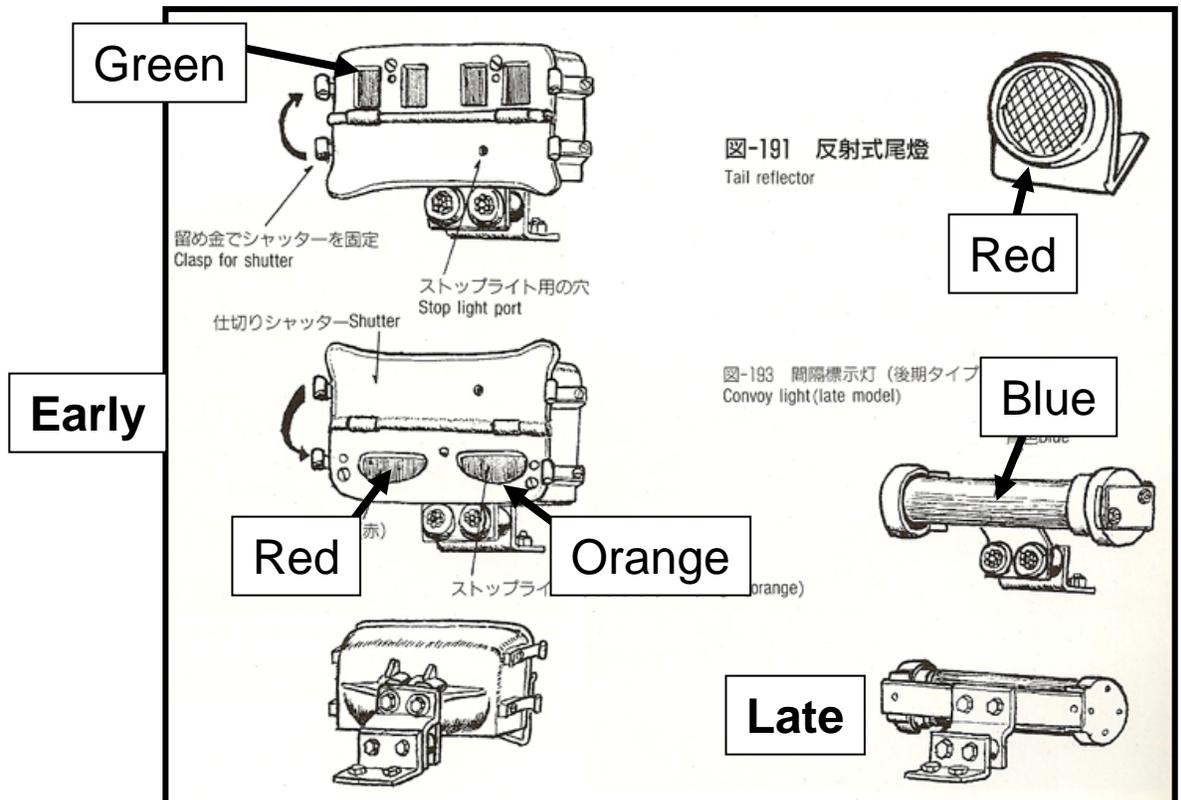
Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 8 (cont.): Another **Step 8** option is the early or late engine starter crank handle. Kit part N 5 is the early version and part M 13 is the late one. Frankly, none of my references were clear enough to show a pattern of use on one or the other.



Yet another **Step 8** option is the early or late tail lights. Actually, the late parts, even though they're shown on the instructions, are not included in the kit. Again, my references show the "early" light in use on "late" vehicles, so the option is yours for a late vehicle. For an out-of-the-box build, go with the early light. The early light can also be shown in "normal" or "black out" configurations. Most photos show the lights were usually just left in the "black out" setting (the flap in the down

position). This is represented by kit part K 4, or you could use kit parts K 3 and MA 18 and build it either way.



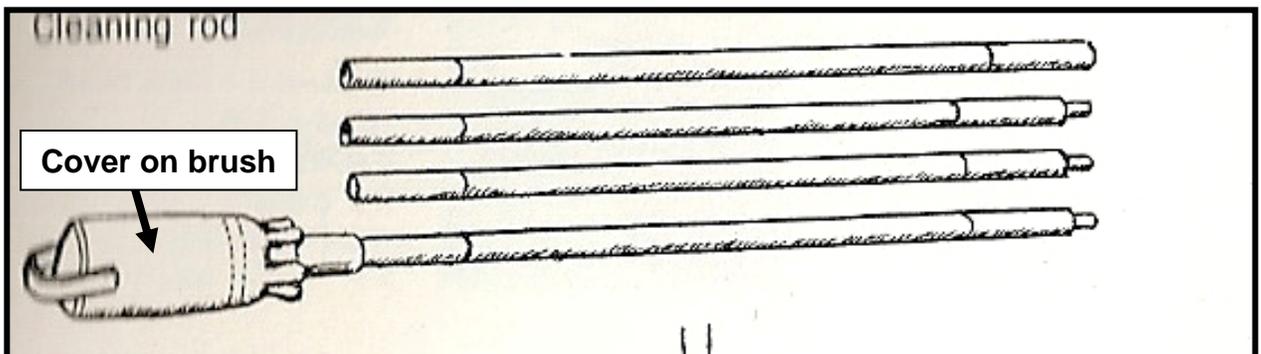
Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 9: I had originally thought that the fighting compartment floor, part K 32, should have tread pattern added to it. I now know this is wrong. The floor, as illustrated below, was smooth. Counter-intuitive, but that's the way it was, at least on the late StuG IV's on display at the museum in Poznan, PL. It could be that earlier ones had a non-slip tread pattern on the floors, but in the absence of evidence to the contrary, I'm going with the kit part as is.



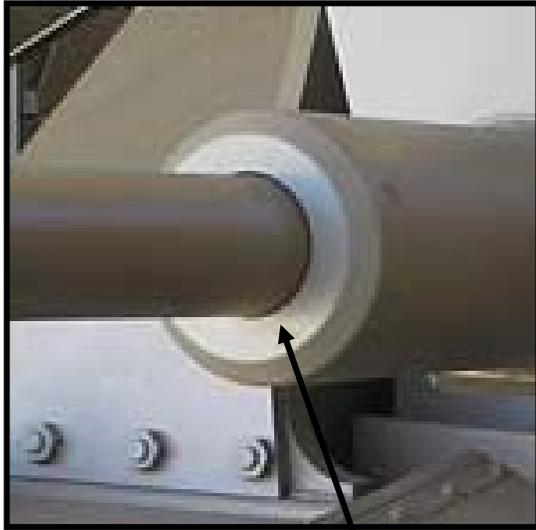
(Photo courtesy of Anthony Sowards)

Another **Step 9** detail you could add easily is the texture to the fabric cover on the gun cleaning rod brush.



Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 10: In this step, I have recommended “relieving” the end of the kit mantlet to allow the gun barrel to appear to go “into” the mantlet rather than being glued “onto” it. Here are a couple of photos to show the effect I want to achieve on my model – a nice shadow line around the barrel – mantlet joint.



Shadow lines around the gun barrel where it enters the end of the mantlet.

I haven't figured out exactly how I'm going to do this. One method would be to hollow out the end of the mantlet slightly (i.e. “relieve” its face slightly). A second method might be to add a thin disk of plastic with a hole for the end of the gun barrel to the face / end of the mantlet. The edges of this piece would then be puttied / blended into the mantlet.

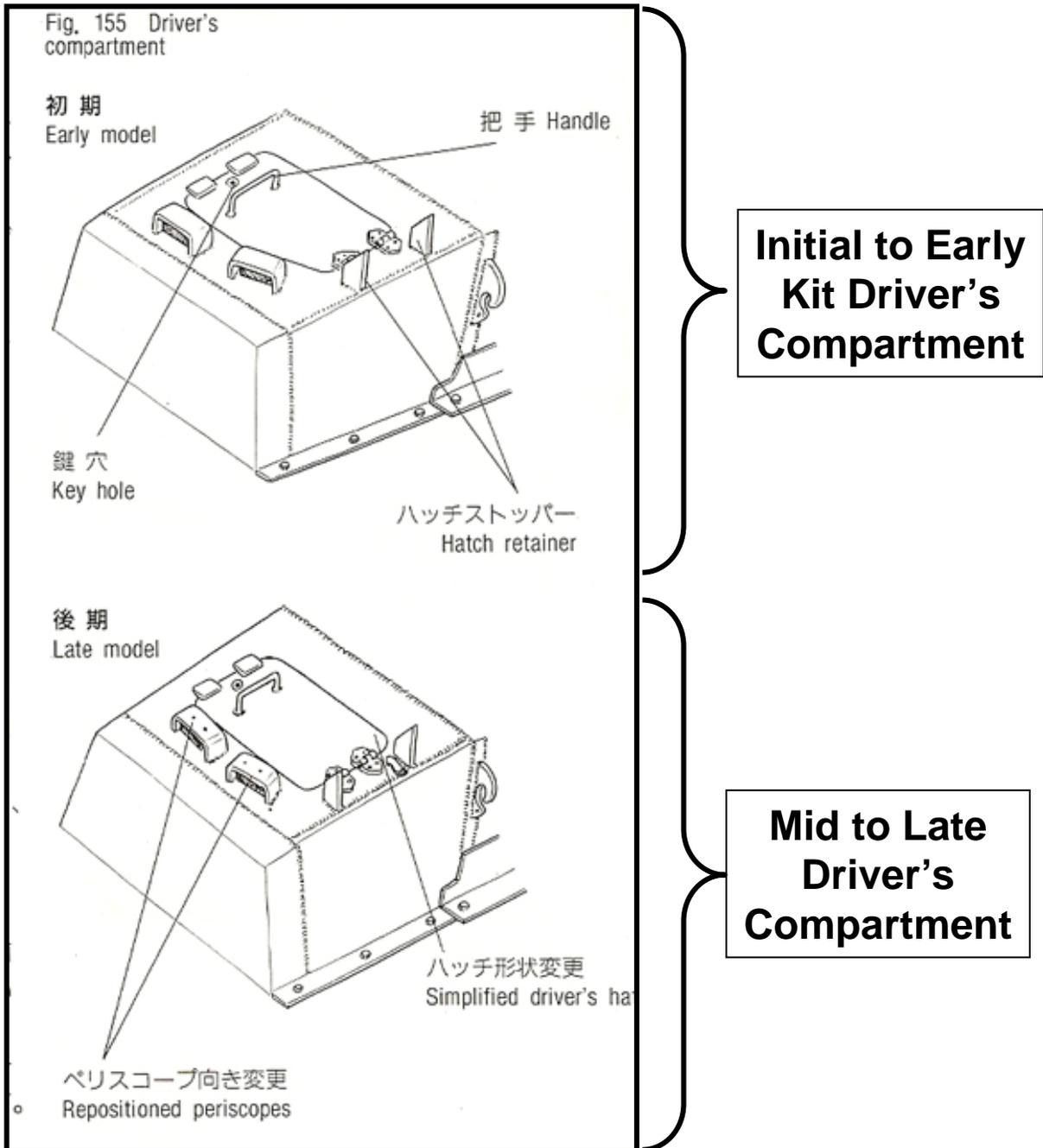
I'm probably going to go with method two, but it's still an open question.



Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 11: I haven't found any particularly hard to answer StuG IV reference questions in this step. However, the radios can be detailed out quite a bit using pretty common StuG III references. If I'm going to leave the hatches open on my StuG IV, I'll give the radios the "Full Monty."

Step 12: Here's where things get tough if you want to model a mid to late version of this vehicle. The driver's compartment roof must be completely re-built. So, the next couple of pages will show the things that must be changed here for a mid to late version.



Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 12 (cont.): Mid to late version driver's compartment details.

Note the driver's hatch hold-open latch.

Also note the angles of the periscopes

(LATCH)

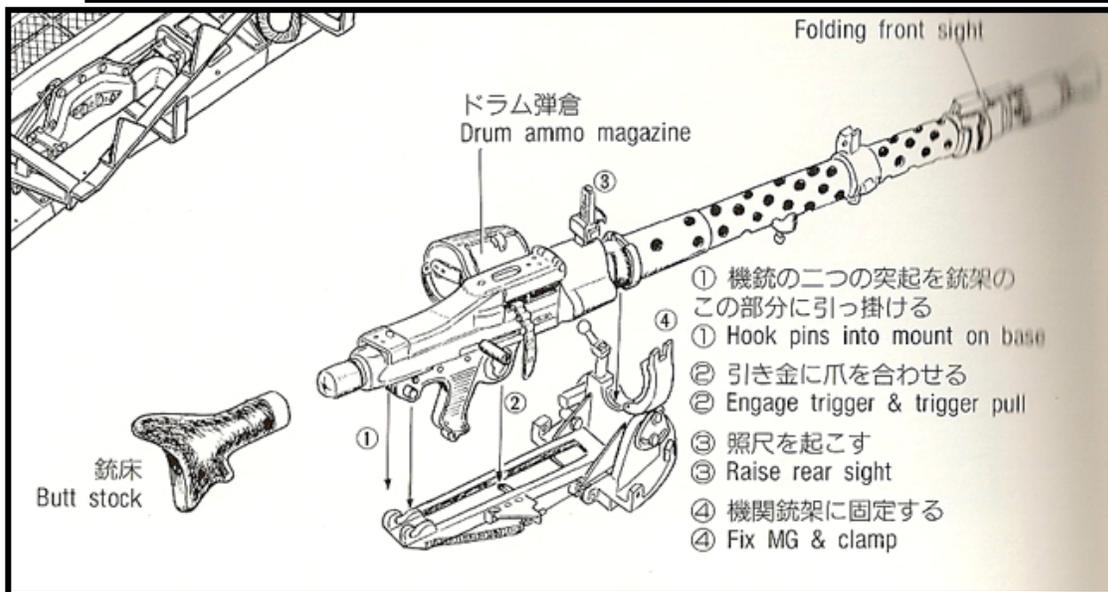
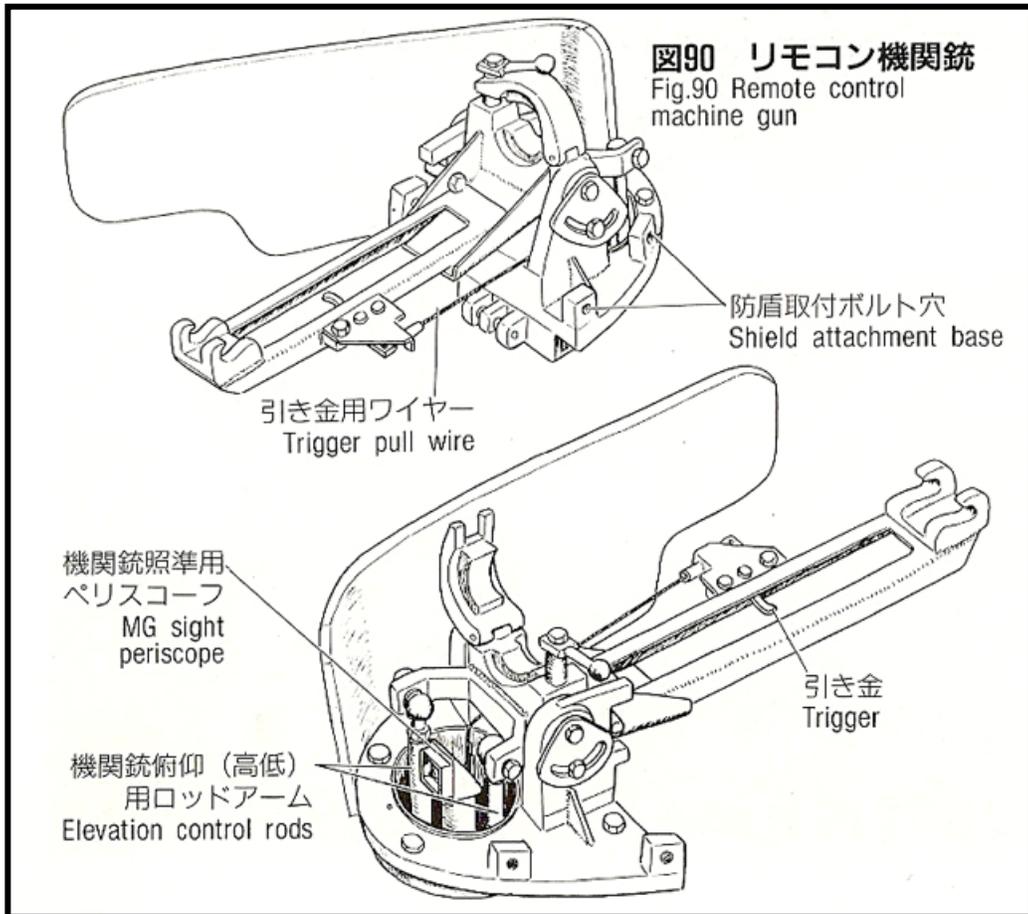


There were rain shields added to some of the periscope armored covers. These are shown in several of the extra photos in the separate files. These shields were authorized for retro-fitting by units in the field, but are not evident in all of the photos of late StuG IV's.

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

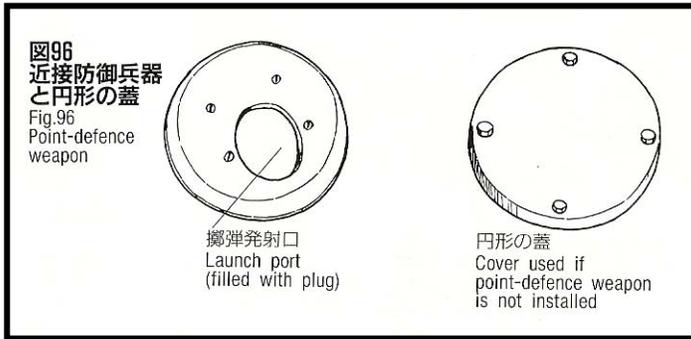
Step 13: This step continues the changes that must be made if you want to model a mid to late version. These changes are for the *Rundumfeuer MG*, *Nahverteidigungs Waffe*, and the loader's hatch. There are also some details that you could add to the commander's cupola and hatch.

**Rund-
Umfeuer
MG**

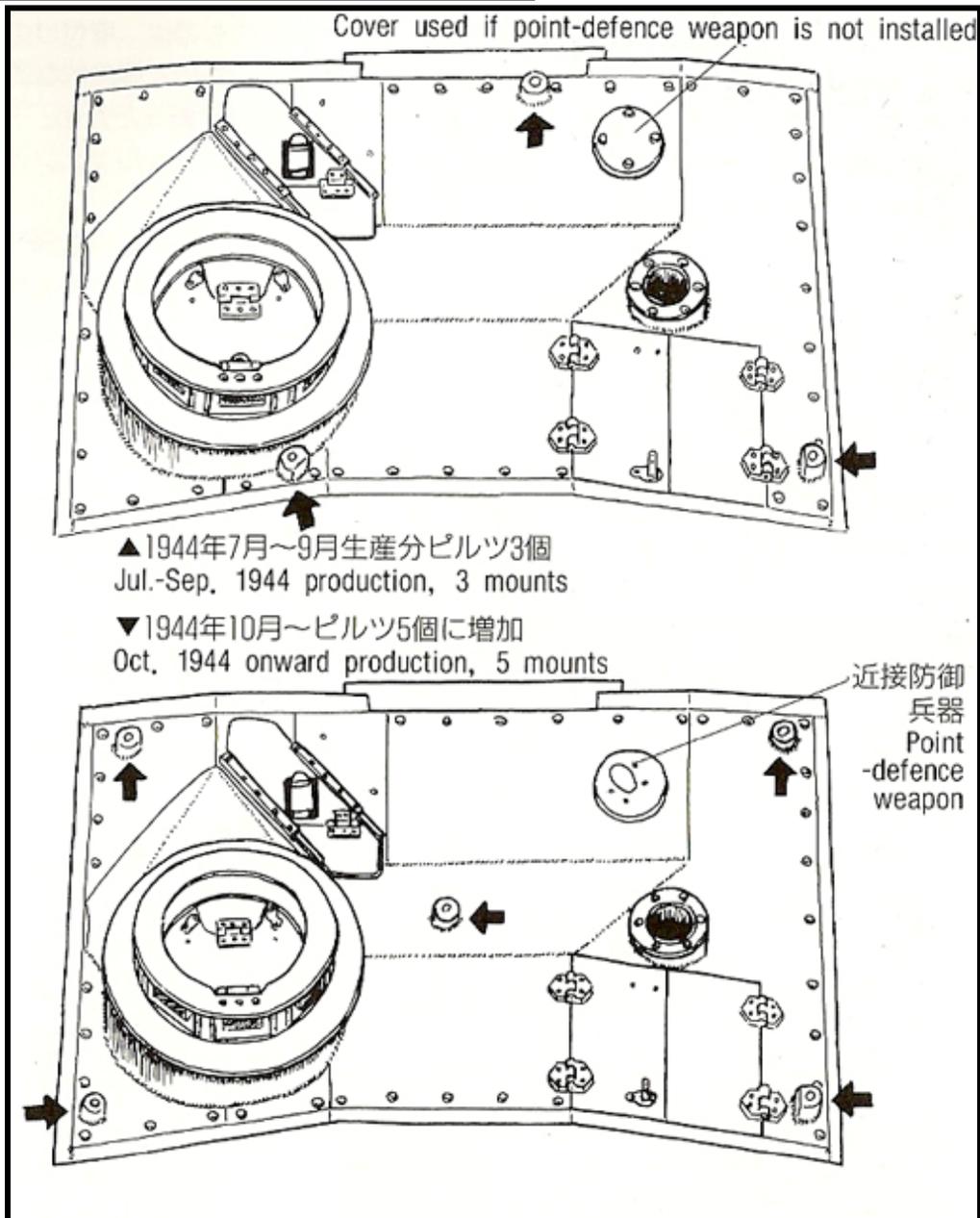


Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 13 (cont.): Mid to Late version fighting compartment changes and roof details.

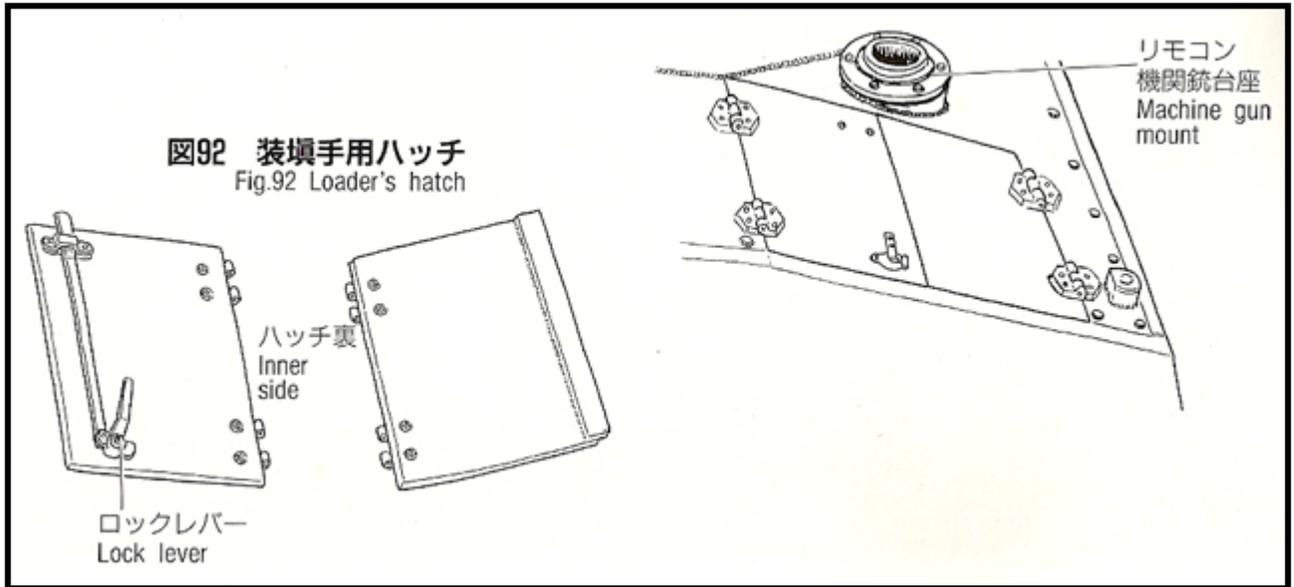


**Nahverteidigungs
Waffe**

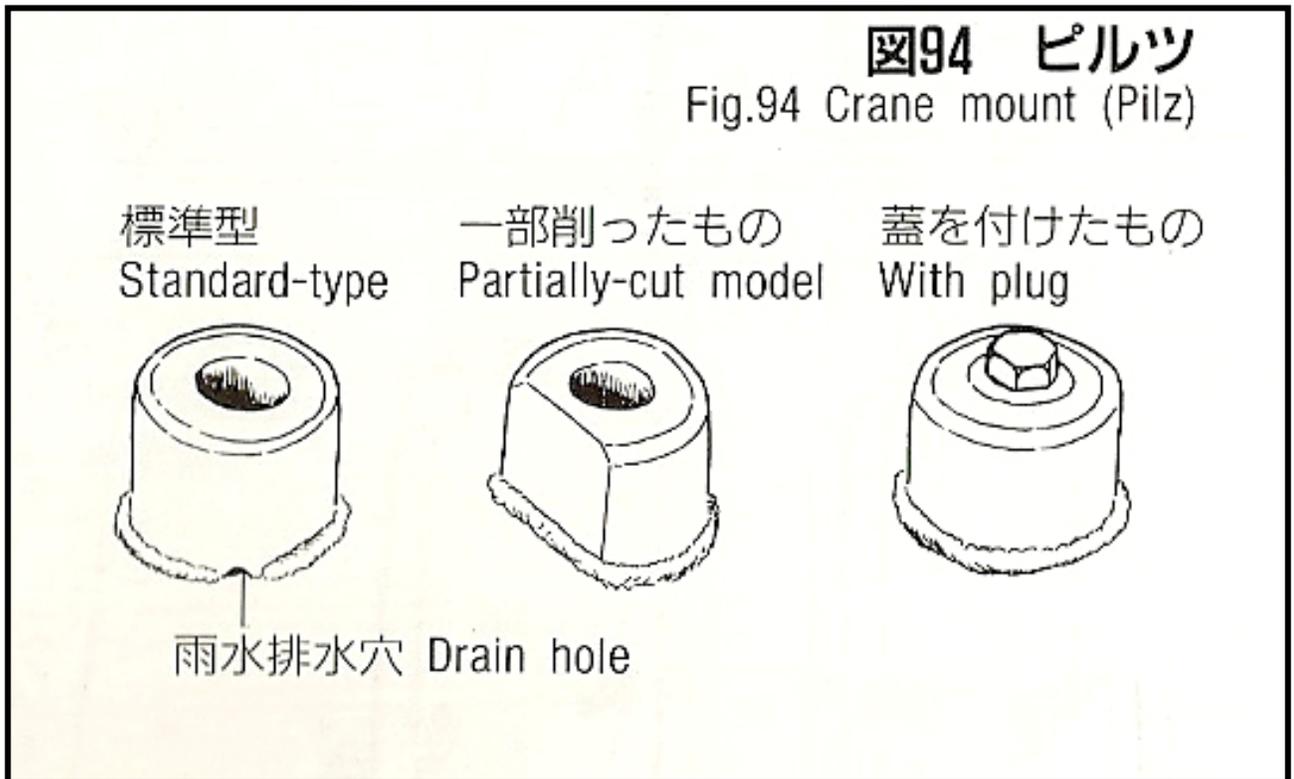


Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 13 (cont.): Mid to Late version fighting compartment changes and roof details.



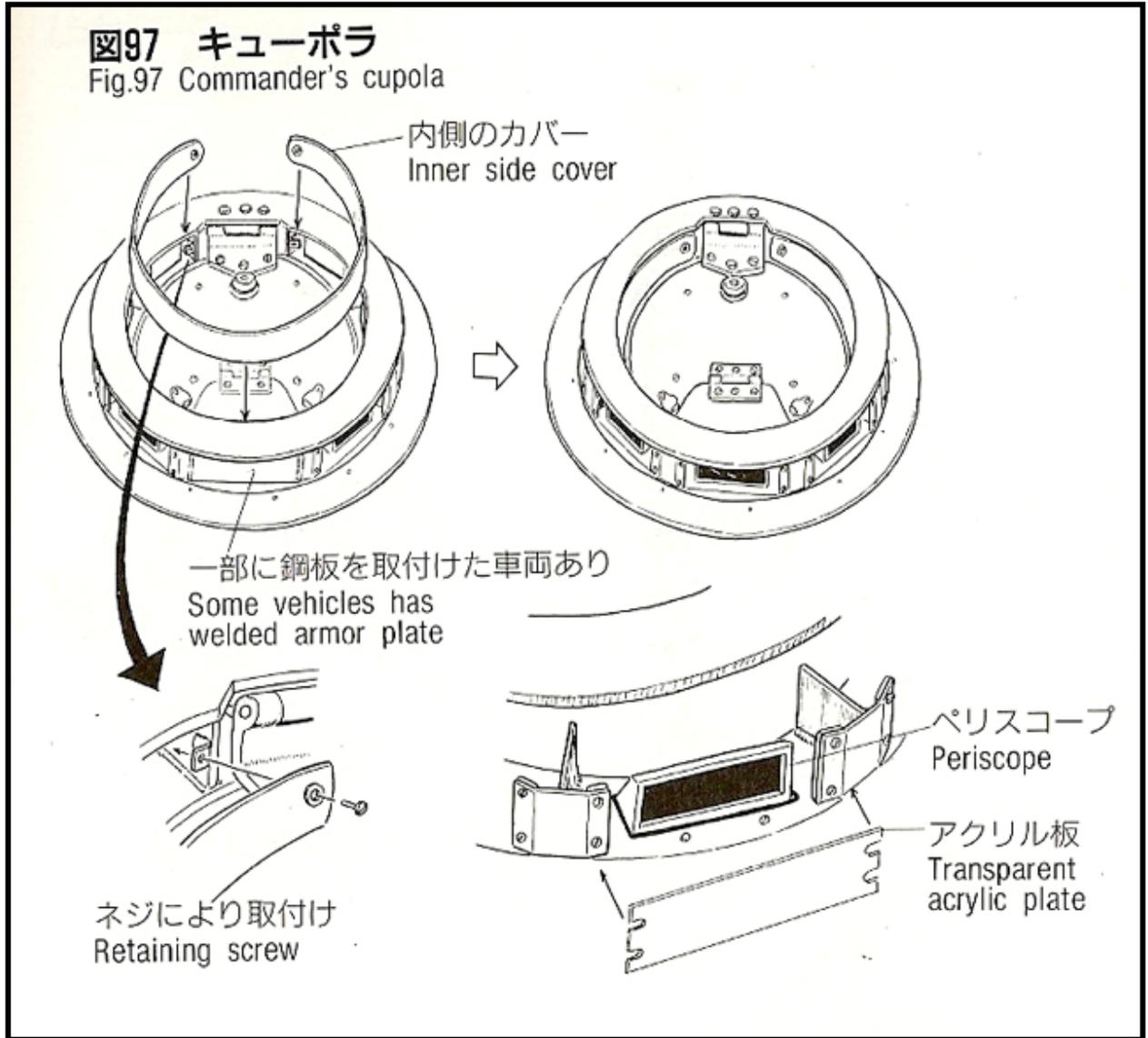
Loader's Hatch Details



Pilzen Mount Details

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

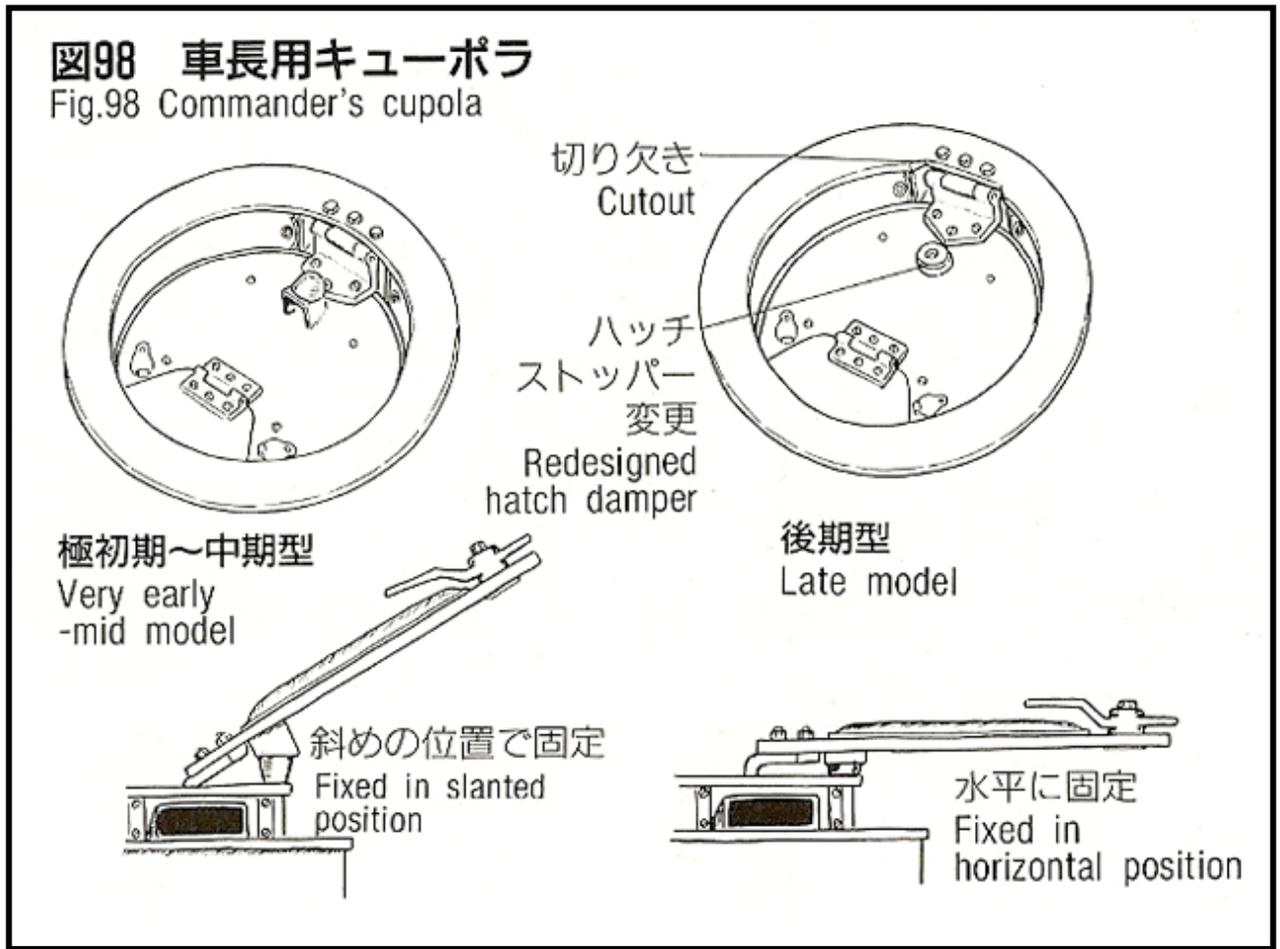
Step 13 (cont.): Mid to Late version fighting compartment changes and roof details.



Commander's Hatch Details

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 13 (cont.): Mid to Late version fighting compartment changes and roof details.



Commander's Hatch Details (cont.)

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Step 13 (cont.): Mid to Late version fighting compartment changes and roof details.

Fig.100 Scissors telescope flap variation

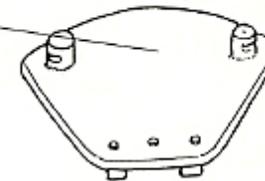
四角いもの
Quad latch



把手簡略化
Simplified handle

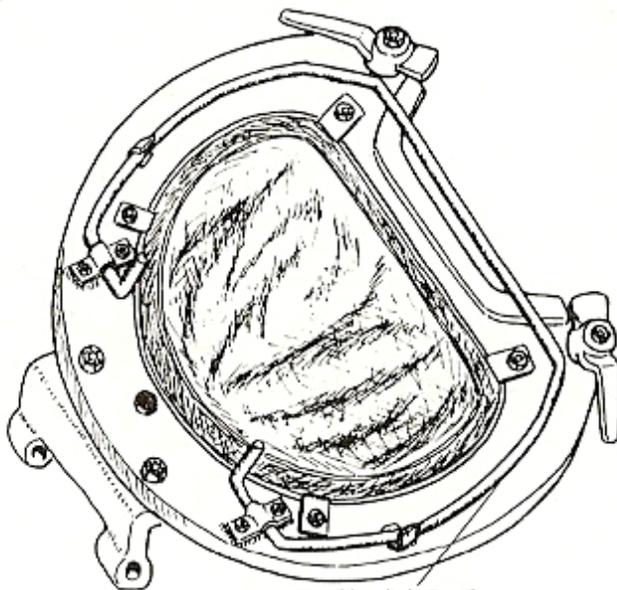


把手なし
No handle



**Commander's
Hatch
Details (cont.)**

図99 車長用ハッチ
Fig.99 Commander's hatch



可動式把手
Support for closing hatch

Reference Illustrations Keyed to the Part Number and / or Step (cont.)

Steps 14 and 15: Interior details for the fighting compartment can be found in many StuG III references. Look for StuG III Ausf. G for these, although, for all intents and purposes, the earlier models from about the Ausf. F~F8 have very similar details, especially in the sponsons (radios) and the upper rear fighting compartment wall.

One problematic area with this build are the tracks. The kit tracks represent the final, 40 cm wide tracks with the solid guide horns and the ice-cleat “chevrons” on the spuds.

Factory photos of the initial production vehicles show the earlier 40 cm wide tracks with the hollow guide horns and ice-cleats, so to match the out-of-the-box version, I believe that the tracks should be replaced. However, photos of some Pz IV’s and Pz IV-based vehicles in the Summer of ’44 show the kit-type tracks. I don’t have a firm introduction date for the kit-type tracks, so I can’t say for certain if they are technically incorrect for the version the kit builds into, only that they don’t match the early factory photos.

Well, that about does it for this installment of the reference portion of the build-block “syllabus.” I’m sure that as we go along, we’ll find some more changes that we could make, and it’s almost inevitable that as soon as we finish, the one question that we never could get an answer to ... will be answered (most likely opposite of the way we guessed!).