

MISSING

LINKS

tweaks list



VEHICLE

Panzerkampfwagen VI Ausf. B
Sd.Kfz. 182 "Tiger II"

MANUFACTURER

Tamiya, kit numbers 35164 and 35169

SCALE

1/35

AUTHORS

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DESIGN

Dan Oldfield

VERSION

1.0 November 11, 2001

Each MISSING LINKS Tweaks List is designed to assist the modeller enhance and refine the kit detail. We welcome comments that would help make each Tweaks List a more accurate reference tool.

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by Lawrence Goh

HENSCHEL TURRETED VERSION

TURRET

1. Fill the hole under the forward periscope on the turret roof in front of the loader's hatch with plastic. Remember to cut a small rectangular hole large enough for a periscope to go through. Finemolds make a terrific transparent set.
2. Welded across the front edge of the turret roof is a long slim piece of rain guard.
3. The commander cupola. This is where much of the detailing is needed. First, the swivelling arm is supposed to be separate from the round dome hatch. The best way out of this is to get Armored Brigade Models' cupola and hatch set. The hatch itself is separate from the arm. There is a head cushion pad underneath the dome hatch. The arm is correctly detailed as well. The cupola periscope wells beats Tamiya's anytime. Note that ABM's set is not complete, it does require you to use back Tamiya's AA MG ring, and probably some small fittings around the cupola that are well covered by Aber's detail set. Note that there are two tubes on the cupola, one is welded in front of the armored cup that pivots the swivel arm, and the other diagonally across the cupola. These are for the rarely used "umbrella". Photos of this in use can be found in the Jentz/Doyle TII hardcover.
4. All three pilzens are located incorrectly, check your references on this - the best reference would be 1/35 drawings from Jentz/Doyle TII hardcover.
5. The torsion bars on the rear turret hatch are wrong. If you're building an early production TII, with the bars exposed, you'll need to correct this. Small details were found on the bars, a hex bolt head on each, close to the hatch, and small rectangular shape close to the bolt on the right bar.
6. At the bottom of the rear turret hatch there should be two slits exposing the torsion bars, mentioned above. A good reference for this is the Panzers in Saumur 1 book by Model Graphics of Japan, which has plenty of good color shots.
7. The ejection port on the rear-most roof armor plate is too far back (This error was highlighted to me by Mirko). It should be moved closer to the weld line. What I've done to mine was to carefully cut the area out, by drilling tiny holes along a scribed rectangle around the area. After I've cut enough plastic between the port and the weld line, I glue it back. To level the separated plate with the surrounding, I've used plastic backing on the underside. After the separated plate has been positioned correctly, I filled the gaps with putty.
8. The hinges for the loaders hatch looked wrong. They should be tapered downward and inward towards the front. The gap around it should be smaller as well.
9. The commander's targeting guide in front of the cupola (rectangular shaped) is placed incorrectly. It should be repositioned directly in front of the 12 o'clock periscope on the cupola. Aber details include these but I scratch-built them from stock plastic and wire, adding two retailing bolts on top.
10. The telescope port at the front turret armor needs a bit of detail. There is a stepped armor on the inside that leads to the hole for the periscope. Also, the hole itself is not tall and wide enough. Carefully remove excess areas without damaging the shape of the crevice, and place the stepped details on the inside (built from stock plastic - small drill bits of several sizes are perfect for this job).
11. The hole on the right of the front armor, just behind the hole on the mantlet, would be best used by placing an MG 34 in it. While not obvious when you view the tank in many angles, it is obvious at certain angles.
12. The mantlet for the "332" and a number of the late production T2s does not have the "ring" retail at the center. Depending on which T2 you're referencing, this may or may not be removed. What I've done was to remove the ring with a motor tool, fill up the area with putty, sand them down and then carve "dents" into the area again with a motor tool.
13. The bolt collar at the front edge of the mantlet has a wire running through the center of each bolt, interconnected.
14. The barrel for the kit is the wrong length. While not obvious, those who are accuracy-inclined would want to correct this. The details on the front edge of rear section (shorter) is wrong and under detailed. The groove lines at the rear of details are in the wrong positions as well. There are 6 holes on the deep groove at the forward edge of the rear section. From edge-to-edge, the rear section should measure 26mm. For the front section, it should read about 74mm - front of the rear section to the point just before the locking collar of the muzzle break. These measurements came from the Swedish Trio (Mirko, Gunnar, Per). From the many aftermarket barrels, I've been gathering, only Jordi Rubio came really close to the measurements, minus the 6 holes.

by Lawrence Goh

15. When you attach the kit's muzzle break (better than metal ones from the aftermarket) to the barrel, remember to carve two very small square notches diagonally on the inner edges of the front round hole. The first should be at about 45 degrees from 12 o'clock, with the other directly diagonally opposite.

HULL REAR TOP

1. There should be a couple more rivets around the antenna mount located at the rear on the engine deck's RHS.

2. There are 3 rectangular rotating stoppers on the rim of the engine access. The kit has them molded on. I removed these and scratch built them with plastics so that I can provide a bit of irregular, realistic position by rotating them around a bit.

3. Aber's forward engine meshes (the additional large ones), after bending, are hollowed on the curved edge. I've used plastic strips to cover this gap up.

4. The Bosch headlight is better replaced by Modelkasten ones. Or you could correct it as per headlight for any other german AFVs you've done before. Add wiring between the light to a raised round detail on top of the hull roof.

5. Front, side and rear fenders are better replaced from Aber's if you want "scale" thickness and an option to create dents on them with ease.

6. The rear plugs (when viewed from above) actually corresponded to notches carved on the side sloped armor - one on each side. From the side views, these notches are curved, and they are reflected on the sponsons as rounded grooves. These grooves were there to allow clearance to the rear plugs. Note that the notches are especially not obvious on zimmerited vehicles as they were usually covered up with the paste. On non-zimmerited ones, they would be obvious, particularly on "332" shots that I've seen.

further reading

Germany's Tiger Tanks: VK45.02 to Tiger II Design, Production and Modifications
Schiffer Publishing Ltd.

Tigers in Combat 2
J.J. Fedorowicz Publishing Inc.

Panzers at Saumur 1
Model Graphix

Panzer Tracts No 6: Schwere Panzerkampfwagen D.W. to E-100 Including the Tigers

Ground Power # 43
Delta Publishing

Ground Power #53
Delta Publishing

New Vanguard 1: King Tiger
Osprey Publishing

Achtung Panzer 6
Dai Nippon Kaiga Co.

The Combat History of Schwere Panzer-Abteilung 503
J.J. Fedorowicz Publishing Inc.

7. The armored pot for the two rear exhaust tubes requires two lifting lugs for each pot - one on each side of the pot. The exhaust outlets for each tube are better represented by drilling them through and inserting a vertical wire through at the mouth of each outlet.

8. The kit's sloped armor sides has the bottom rear edge "beveled" flat. In actual fact, they looked "beveled". The bottom edge should be sloped all the way through, with only that rear section filed VERTICALLY a little - not horizontally like what the kit's hull shows. To correct this, you'll need to build that area up with a very slim "triangular" plastic piece. The "triangle's" lower edge should continue the straight slope. After that, file the "triangle" on the side at 90 degrees, giving that false beveled look. Basically, you're just adding a triangular fillet to the rear edge to correct the look.

by James Blackwell

HENSCHEL TURRETED VERSION

LOWER HULL

1. General

Replace tracks if so inclined

2. Front

If removing outer edge of front fender, thin it out and add 3 mounting bolts above and below

If removing curved front fender totally add 3 hinges to glacis plate

Add sprung retaining pins to protruding side wall sections that lock the curved front fenders down from thin rod, strip and a rivet head and 'L-shaped' bracket to inside face of fender to sit on the side wall

Drill a small hole in one side face of inside bolt head

3. Sides

Add 2 missing shock tower plugs to side walls plus slight cutouts in the hull side wall lower edges above them

UPPER HULL

1. Front

Shorten interlock plate on glacis join from nose armor by 2mm as Tamiya have done both glacis and nose plate at the same thickness

Add more detailed 'scale' Bosch light, mount and wire up back to conduit plug on hull roof

Add zimmerit if desired

Drill out muzzle of MG, add cooling slot, 2 small holes and serrated collar edge to top and bottom of MG barrel sleeve

Add MG plug chain mount (and chain and plug if desired) to top edge of glacis plate

2. Sides

Detail shovel bracket on LHS with tool clamps, 4 rivets and strip on semi-circular sleeve and strip stopper behind handle.

If skirts aren't fitted redo mounting plates as they are underscale and have odd bevel on bottom edge

Replace track changing cable and brackets if desired on LHS - same with tow cables

Detail up spare aerial tube on rear RHS with brackets and securing chain for cap

3. Rear

If doing an early to mid model with jack and jack block still fitted they can both be detailed;

Add better mounting brackets for jack with wingnuts, replace solid handle with wire one, open up 'foot' on jack body, drill out hole on end of handle

Jack block needs lifting handle added to the top edge, rows of tiny rivets added to securing straps, edge of strap demarcation scribed into edge of top face and wood grain scribed in behind it, plus wingnuts added to 2 centre mounting points

If removing rear fenders fill slot and add 3 hinge points

Add triangular strip with small hole drilled in to rear plate near bottom of sidewall overhang where spring loaded fender pin secures

Add pin to rear fenders to match, plus wingnut and 2 small strips on flap bracket and rivet detail on underside after thinning out and possibly strip edges if desired

Add missing starter crank guide tube to bracket on RHS armored exhaust guard from rod, tube, 2 small bolt heads and fine chain

Add 2 lifting pegs, cast texture and casting no.s to these guards plus cut rain holes into their bases

Scribe join in exhaust pipe flange plate and add 4 small bolts on underside plus add texture and redo vanes in openings after drilling them out deeper

Redo distance light with more detail if desired

Add wingnuts to 'C-hook' tow clevis brackets or totally remove molded on brackets and redo from strip and rod

As with front ones drill a small hole in one face of the inner bolt head of 'U-hooks' if fitted

4. Top deck

Detail tool brackets with clamp handles and miscellaneous details

Add missing hatch retainer clips from strip

Add 3 missing lifting hooks to hatch plate

by James Blackwell

Add p-e mesh grill covers; Tamiya, Aber, Eduard, Show etc. and add a P&D hex bolt to 4 corners of each of the rectangular ones

Re do the mesh with a better weave in the 2 large frame grills plus add 2 square strips and bolts to 4 frame corners

Add 3 missing lifting hooks around circular grills

Add bracket for bolt cutters and clamp handle

Drill open crowbar tube on engine hatch used for levering it open (rear end is capped though)

Redo 3 hatch tabs in different positions if required

Add 4 small discs around 2 top plugs on engine hatch breather covers

Scratch missing retaining hook on engine hatch and tooth it hooks onto on deck

Redo aerial mount base if desired and add 2 small bolts to outside edge of deck next to it

Drill out and add real mesh into engine ventilator with bolted ring around opening

Add missing plate to section behind rear grill with a small rectangular cutout in each and add radiator overflow pipes to this

TURRET

1. Gun

Add missing baffles inside muzzle brake (MB)

Add locking strip and bolt to top of MB

Cut in 4 rectangular slots to MB collar

Drill in 6 holes around barrel join collar on 2 piece gun and 2 holes at 9 and 3 o'clock positions on first line back from join

Add locking wire through mantlet bolt heads on forward facing collar to prevent them undoing

Add casting seam along mid line of mantlet on both sides with casting no.s on RHS

Add coax muzzle in mantlet hole with tube going back into turret

Add gas detector plate to top edge of mantlet

selected detail sets

ABER

Main set #35040	Side skirts set #35A40
Front & rear fenders set #35A42	

EDUARD

Fenders set #35400	Henschel turret set #35399
Porsche turret set #35376	Zimmerit set #35404

MODELKASTEN

Tiger II tracks #SK-06	Tiger II spare tracks #SK-16
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FRIULMODEL

Tiger II standard track #ATL-16	Tiger II transport track #ATL-21
Tiger II early track #ATL-22 (18 tooth drive sprocket)	Tiger II final track #ATL-37 (18 tooth drive sprocket)
Tiger II early track type B #ATL-41 (18 tooth drive sprocket)	Tiger II transport track type B #ATL-22

JORDI RUBIO

Tiger II 2 piece barrel #JR-06	Tiger II monoblock barrel #JR-14
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ELEFANT MODEL ACCESORIES

Tiger II barrel cleaning rods #35485

A few versions of mantlet were used so check the shots and see what yours has (stepped with collar, stepped without collar or late smooth bell-shaped one)

2. Turret Body

Add stepped opening behind Gunner's sighting aperture from layered strip

Add small deflector strip along front edge of turret roof fitted to some

Add CO's blade sight to roof mount in front of pilzen from wire, strip and 2 bolt heads

Add scope inside Loader's scope guard

Add scopes inside CO's cupola

Add armored collar round cupola hatch hinge

Add 2 thin tubes on cupola near hatch hinge and 4 o'clock scope

by James Blackwell

Add 2 spot welds to each scope cover securing MG rail

Add triangular hatch stopper to 12 o'clock position on cupola

Add padlock bracket from strip with small drilled hole to hatch and cupola at 4:30 position

Add head pad and strip and bolts to underside of hatch

Add weldbead along hatch arm (plus bolt on top) and scribe join between it and free spinning hatch

Add strips to ring around turret ventilator for rainguard from strip

Add 4 spot welds to loaders hatch top where locking arm pegs on inside face have been attached

Add padlock forked hasp and holed bracket to hatch and turret top

Add triangular stopper for shell ejection port (while it's slightly too far back its a major job to move it so personal call as to whether it's worth it)

Add 2 new open gas detection paper mounts at rear of turret roof from strip and bolt heads

Drill out spare tracks and add pins through them and lugs on turret side

Add more accurate hinge bars for rear hatch especially on an early where the guards aren't fitted

PORSCHE TURRETED VERSION

Pretty much as Larry and I have described above for the Henschels, but with a few unique variations (see *Panzers at Saumur 1* for the pick of the sketches)

HULL

Add zimmerit unless doing one of the 3 very early V-series prototypes

Some of the V series vehicles had 18 tooth sprockets and the early style track (some hub and spoke pattern variations between these and the last 18 tooth varieties so check your references before using Dragon or Fruil ones without some modifications)

If it's one of the early batch, the scalloped front tow shackle cutouts need to be filled with a fillet so its squared off like an Early Tiger I and possibly have cast numbers added to the LHS, one running vertically (from 001-010?..)

The very early ones had flat style mudguards (much like the rears) on the front two

The headlight conduit plug on the hull top needs to be widened on the very early ones

On the first 3 prototypes the Radio Op's glacis plate scope cutout needs to be filled

A smaller ventilator needs to be substituted between the Driver's and Radio Op's hatches on early ones

some of the earlier batches had Tiger I style exhaust stacks with sheet metal guards around them (e.g., the shot of a schwere Panzer-Abteilung 506 vehicle on a flatcar heading into Arnhem)

The bell-shaped hinged schnorkel cover needs to be added to early models

The lifting hook pattern around the round grills varied also with 4 on the RHS (at approximately 11, 1, 4, and 8 o'clock positions) and 3 on the LHS (at the 12, 8 and 4 o'clock positions)

The 2 engine hatch ventilator covers should both be domed not beveled

The small blow torch port on the rear plate should be removed

TURRET

Some minor variations existed with the Gunner's sight optics with the strip rain guard fitted vs. not fitted (above the early type binocular holes)

If doing an early model add the welded up shell ejection port on the LH turret side and the 2 hinge securing rivets in front of it.

Add the missing pistol port plug to the RH turret side

Cut "T-shaped" rain gutter into the turret roof on the RHS of the Loader's hatch