

MISSING

LINKS

tweaks list



VEHICLE

Panzerkampfwagen V Panther Ausf.G
Sd.Kfz. 171

MANUFACTURER

Shanghai Dragon, kit numbers 9045
and 9046
Tamiya, kit numbers 35170, 35174
and 35176

SCALE

1/35

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DESIGN

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VERSION

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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 Darren Gawle

From current research and photographic references, it is unlikely that the chin mantlet (an October '44 feature), would have been seen on a September '44 steelwheel. Modellers should be aware that this is an unlikely combination, and as such the Shanghai Dragon command tank model may be inaccurate if built straight from the box in this format.

Lower glacis plate

DML

- Add missing weld and bolt detail to inside faces of final drives.

DML & Tamiya

- Add weld seams to joins between lower glacis plate and lower hull sides

Lower hull sides

Tamiya

- Add missing plate join for upper glacis plate above final drives
- Add missing plate join for rear hull plate aft of the idler wheel mounts
- Move rearward RHS shock absorber bolt forward 28mm. Move forward RHS shock absorber bolt forward 40mm

DML & Tamiya

- Add track pin return plate
- Delete rear shock absorber attachment bolt (for post-Oct. '44 models only)
- The lower hull extensions which form the lugs for the tow shackles are cut away a bit too deeply on their undersides

Running gear

DML & Tamiya

- Either add seam and bolt detail to the inner faces of the drive sprockets and add casting numbers, or replace with MA Morii drive sprocket which has these features.
- **Pre-Oct. '44** Replace idler wheel with either Clipper idler wheel set, idler wheels from Gunze/DML/Revell Jagdpanther kit, or modify the Italeri D/A idler wheels with inner spokes and a styrene fillet between the two main rims.
- **Post-Oct. '44** Replace idler wheel with late-pattern self-cleaning idler from Friulmodel

- **SW Panther testbeds** Tamiya steel-rimmed roadwheels are too large and should be replaced with wheels from DML Befehlspanther G kit, but with hub bolt detail corrected.
- Some Panther Gs produced by M.A.N. in April 1945 had a steel-rimmed roadwheel assembly installed at the rearmost station.

Tracks

DML & Tamiya

- Vinyl and indie-link Tamiya or DML items do not feature perforated guide horns (which might be correct for very late-pattern Panthers pending further info), should be replaced with Friulmodel or ModelKasten tracks (or Anvils)

Rear hull plate

DML

- Replace tow coupling entirely w/scratchbuilt item.

Tamiya

- Replace tow coupling handle with brass or styrene rod and detail with small-gage chain.
- **Early Panther Gs** Replace jack mount with PE or scratchbuilt item integral to PE or scratchbuilt exhaust pipe braces
- **Early Panther Gs** Replace exhaust shrouds with PE or scratchbuilt items of correct thickness and dimensions.
- **Early Panther Gs** Either add exhaust aperture bars to pipes or replace with Moskit exhaust pipes
- **Late Panther Gs** Replace flammvernichter with items from DML Panther kits or scratchbuilt items of correct dimensions. Add bolt detail to upper rim of flammvernichter (4 per)

DML & Tamiya

- Stowage bin clasps need to be added/replaced (Aber or Royal Model), hinge detail can be improved
- Add weld seams to joins between rear hull plate and hull bottom and hull sides
- Remove convoy station light/reflector and replace with scratchbuilt or PE item
- Drill out hole in engine starter crank guide
- Replace welded armoured exhaust covers with cast items for pre-May '44 production vehicle
- Add PE mounts to flammvernichter

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Glacis plate

DML

- Replace MG ball mount with Tamiya item.

Tamiya

- Add electrical conduit detail to Bosch headlamp

DML & Tamiya

- Add weld detail to plate joins
- Add MG port plug if desired; add chain and attachment point to upper glacis plate.
- Cut/grind/sand/shave top edge of glacis plate down so that its upper edge sits flush the the hull roof (Forward plate seam/rain gutter will need to be moved forward accordingly)
- Thin out mudguards or replace with PE items.
- Add frame detail to Bosch headlamp
- Add locking nuts connecting fenders to lower hull side plates

Upper hull sides

DML & Tamiya

- Add weld bead detail as required
- Replace tool mounting brackets (optional for Tamiya) with scratchbuilt or PE items
- Add oval plates to ends of tow cable hangers
- Bore retaining pin holes in "c" hook mounts
- Add retaining pin and chain detail to "c" hook mounts.
- Add circular pin head detail to underside of "c" hooks.
- Either add handle detail to tool clasps or replace with scratchbuilt or PE items
- Add "u"-shaped supports for tow cables to tool mounting brackets
- Replace gun cleaning rod stowage tube with scratchbuilt item detailed with clasps, detail end caps with brass strip handles, detail top brace with brass strip, add chain detail for end caps.
- Replace schuertzen supports with PE or scratchbuilt items
- Replace spare track stowage brackets with scratchbuilt or PE items, detail with retaining pins and chain
- Add jack block support
- Replace track tensioning cable support with PE item (optional)
- Replace track maintenance tool bracket with PE item (optional)
- Add prybar mount to hull side just above stowage tube

selected detail sets 1

ABER

- #AB35024 Panther G details
- #AB35053 Panther F/II details, features slatted louvers absent from #AB35024
- #AB35A24 Panther G/F front fenders, comes with schurtzen supports
- #AB35A28 Panther G/Jagdpanther schurtzen

ACCURATE ARMOUR

- #A39 German WW-II heavy tow cables
- #C21 Panther-G detail & skirt set, combination of #C22 and EB02
- #C22 Panther-G detail set
- #C34 Panther 'Ersatz' M10 disguise
- #EB01 German 'crows foot' aerals
- #EB02 German Panther G skirts

CLIPPER

- #605 75mm KwK 42 L/70 for Panther
- #? Standard-pattern Panther idler wheels

CMK/HOTS BARRELS

- #HB008 75mm KwK 42 L/70 Late Panther G, kit includes resin mantlet and muzzle brake
- #HB031 75mm KwK 42 L/70 Panther D/A/G w/zimmerit, kit includes resin mantlet and muzzle brake
- #HB032 75mm KwK 42 L/70 Panther G w/zimmerit, kit includes resin mantlet and muzzle brake

EDUARD

- #35074 Panther G details, old set, superseded by Nos. 35354 and #35362
- #35075 Panther G schurtzen, old set, superseded by No. 35353
- #35255 PzBefWg Panther Ausf. G details
- #35353 Pz. V Panther schurzen
- #35354 Pz. V Panther G - early
- #35362 Pz.V panther (Late)
- #35393 Panther G (early) zimmerit
- #35394 Panther G (early version) - zimmerit

ELEFANT

- #35441B Engine mesh for Panther G
- #34461 German convoy light late type
- #35480 Towing clevis for Panther, Tiger, Kingtiger, Jagdtiger
- #35490 Tube for barrel cleaning rod & interior for Panther G., accurate for late Panther As and Jagdpanthers
- #35504 Tow cable for Panther, Jagdpanther
- #35566 Rings between turret & hull for Panther G
- #35386 75mm KwK 42 L/70 for Panther G (Tamiya), will only fit Tamiya kit

by Darren Gawle

Hull roof

DML

- Add radiator overflow pipe and brackets just rear of the rearmost RHS rectangular air intake

Tamiya

- Add forward wooden hatch support blocks
- Add missing bolt detail around edge of oval plate over Driver and Rad. Op's stations
- Add lifting hooks to engine deck around circular air vents (3 per)

DML & Tamiya

- Shim gaps around Driver's and Rad. Op's periscopes with styrene strip
- Replace Driver's and Rad. Op's periscope cover with scratchbuilt items from 0.4mm x 2.5mm styrene strip
- Thin out Driver's periscope visor from underside
- Replace chain for gun travel lock with item from Aber PE set (optional, due to extreme difficulty of assembly)
- Add missing spring loading and counterweight assembly to underside of forward crew hatch hinges
- Add screening to all air intakes and vents
- Drill out water filler port and cover with screen
- Add tow cable holders to rear of engine deck
- Add slatted louvers to the rectangular air intakes on the RHS (starboard) only if kampfraumheizung is to be used
- Bevel in welded edges of the armoured water port cover and add cruciform debris guard to its mouth
- **Post-Jan. '45 vehicles** Reduce the number of bolts securing the panel over the engine by 18. Delete every other bolt running lengthwise along the hull, and delete the first bolt in widthwise from each corner
- **From date unknown** On very late-war Panthers, the remaining bolts securing the panel over the engine were no longer counter-sunk

Raised crew compartment heater (kampfraumheizung)

DML

- Add casting number detail if desired.

DML & Tamiya

- Detail with screen over vent
- Add circular brace around top edge of vent, cut 6 rectangular slots into the outer edge at regular intervals
- Add pie-shaped wedges to kampfraumheizung as desired, if they are to be installed over the vent, secure with washer and nut detail

selected detail sets 2

FINEMOLDS

#MG-08 Panther/Tiger II periscopes

FRIULMODEL

#ALT-08 Panther family tracks #AW-13 Panther drive sprocket

#AW-19 Late (650mm) Panther idler wheel

JAGUAR

#3502 Panther G zimmerit #3504 Panther interior

#3506 75mm Panther ammo

JORDI RUBIO

#G-10 7.5cm KwK L/70 for Panther A,D,G

KARAYA

#TCR01 Panther tow cables

M.A. MORI

#MGP05 Panther drive sprockets

MODELKASTEN

#KM-7 Bosch headlamps #MK-1 Panther A/G tracks

#SK-10 Panther A/G workable tracks

MOSKIT

#3503 early Panther G exhaust pipes

ORDNANCE MODELS

#G114 Panther muzzle brake w/ canvas cover

ROYAL MODEL

#029 resin/photoetch, Panther G detail set #050 Exhaust mufflers for Panther family

#079 "Kugelblende" Panther family #093 Panther transmission

#152 Etched skirts, Panther G/Jagdpanther

TAMIYA

#35171 Panther G track links #35173 Panther 75mm projectiles

#35172 Panther G engine grilles, also comes with azimuth indicator, AAMG sight, etc.

TANK WORKSHOP

#G2024 Panther fighting compartment interior #G2025 Panther engine compartment with engine

#G2026 Complete Panther interior, combination of #G2024 and #G2025

- Scratchbuild stowage for unused pie-shaped wedges: a curved holder at each side of the heater to hold the tabs on the outer edges of each pie piece, and a slat with a wingnut in the middle to hold the pieces down

by Darren Gawle

selected detail sets 3

THE SHOW MODELING

#056 Panther G engine grilles #057 Panther G zimmerit
#061 Panther G details

ULTRACAST

#135010 Panther road wheels
(unmounted for spare stowage)

VERLINDEN

#0397 Panther G compartment & engine	#1063 Panther tank transmission
#1203 Panther tank engine pack (Tamiya)	#1259 Panther G zimmerit kit (Tamiya)
#1266 Panther G detail set (Tamiya)	#0479 75mm Panther tank ammo

Turret

Tamiya

- Add gun depression stopper detail to the bottom outer edges of the mantlet sides
- Add missing hatch stop to foremost periscope cover
- **Post Oct. '44 vehicles** Add gun pivot bulges to each side of mantlet

DML & Tamiya

- Add lifting lug detail to the mantlet
- Round off join between mantlet sides and turret face with putty (this was all a one-piece cast item)
- Add rain gutter over gunners sight aperture on mantlet (post-July '44 production vehicles)
- Add coaxial MG muzzle
- Add IR-associated twin brackets to RHS (starboard) of gun mantlet (from date not known)
- Replace debris guard with PE item or thin out kit part from underside
- Add gas detection mounting panels to turret roof (post-Sept '44 vehicles)
- Add rectangular bracket of unknown purpose to center of turret roof (post-Sept. '44 vehicles)
- Shim gaps around Loader's periscope with styrene strip
- Replace cover for Loader's periscope with scratchbuilt item made from 0.4mm x 2.5mm styrene strip
- Bore out muzzle of Nahverteidigungswaffe if desired
- Add triangular brace to RHS of rearmost turret lifting loop
- Delete handle on Loader's hatch if modeling a pre-June '44 vehicle
- Delete AAMG ring on cupola if modeling a post-Dec. '44

further reading 1

Please note that a more detailed description of these publications can be found in the MISSING LINKS

Think Tank menu at:

www.missing-lynx.com/library/german/panther.htm

Achtung Panzer No.4 - Panther, Jagdpanther & Brummbär (Revised Edition) - Hiromu Araki (Editor), Dai Nippon Kaiga, Japan, 1994. [ISBN: 4-499-22671-6]. S/C 96pp. Japanese text w/English captions. A superb, detailed study of the Panther and Jagdpanther.

German Combat Tank Panther - Mannosuke Toda (Editor), Tank Magazine Special, Tank Magazine Co. Ltd. Publishers, Tokyo, 1981. S/C 120pp. Japanese text w/ English captions. Useful photo book on the Panther family with good shot selection, though printed a little dark.

Germany's Panther Tank - The Quest For Combat Supremacy - Thomas L. Jentz, Schiffer Publishing, Pennsylvania, 1995. [ISBN: 0-88740-812-5]. H/C 156pp. English text. THE definitive reference on the Panther tank.

Ground Power No.024 - Pz.Kpfw. V Panther - Delta Publishing Co., Tokyo, 1996. S/C 152pp. Japanese text. Another superb Japanese publication on the Panther.

Medium Tank "Panther" - Russian bi-monthly magazine issue 2/97. S/C 32pp. Russian text and captions. Although all text is in Russian, there is a good blend of shots, colour plates and plans in this very cheap magazine.

Panther - Thomas Anderson & Vincent Wai, Concord Publications, Hong Kong, 1996. [ISBN: 962-361-610-4]. S/C 72pp. English text. An interesting title that combines a reasonable collection of photos with some descriptive text.

Panther - Horst Schiebert, Schiffer Military History Vol.37, Schiffer Publishing, Pennsylvania, 1991. [ISBN: 0-88740-314-X] S/C 48pp. English text. A good affordable pictorial reference work.

Panther Ausf. A (Sd.Kfz.171) - Bruce Alain Hanel D. Saddock & Willy Peters, Armour in Detail No.2, Verlinden Publications VP-939, Lier 1994. S/C 24pp. English text. A very handy, full colour walk-around of the Saumur Museum Ausf. A, ideal for modellers.

Panther Colour - Janusz Ledwoch, Wydawnictwo Militaria series No.62, Warsaw, 1998. [ISBN: 83-7219-13-5]. S/C 34pp. Polish text w/ English captions. A good source of Panther camo schemes and marking variations.

Panther - 50th Anniversary Collectors Edition - Bruce Culver and Uwe Feist, Ryton Publishing USA, Washington, 1995. H/C 270pp. English text. A good history of the development, production and operation of the Panther tank.

- vehicle and add small circular mount for AAMG post on periscope cover just forward of the hatch pivot
- Use styrene strip add the missing cupola area just underneath the periscope covers
- Add missing periscopes
- Add missing hatch stop on pivot

by Darren Gawle

further reading 2

Panther - Janusz Ledwoch, *Widawnictwo Militaria* Series No.60, Warsaw, 1998. [ISBN: 83-7219-010-0]. S/C 82pp. Polish text w/ English captions. An update of the 1993 title, this book is an excellent buy.

Panther in Action - Bruce Culver and Don Greer, Squadron/Signal Armour in Action No.11, Squadron Signal Publications, Texas, 1975. [ISBN: 0-89747-044-3]. S/C 50pp. English text. A good introductory title providing an excellent source of photographs of the Panther D, A, G, Jagdpanther and Bergepanther.

Panther in Detail - Bruce Culver and Uwe Feist, Ryton Publications USA, Washington, 1998. H/C 181pp. English text. A summarised version of the "Panther" title by the same authors.

Panther im Einsatz 1943-1945 - Horst Scheibert, Waffen-Arsenal Sonderband S-24, Podzun-Pallas-Verlag, Germany, 1992. [ISBN: 3-7909-0439-2]. S/C 52pp. German text. One of the few Waffen-Arsenal titles yet to be translated by Schiffer, which is a shame as it has a great mix of shots with some old favourites but some very good shots not seen elsewhere.

Panther & Its Variants - Walter J. Spielberger (Translated by Don Cox), Schiffer Publishing, Pennsylvania, 1993. [ISBN: 0-88740-397-2]. H/C 284pp. English text. Recently succeeded by "Germany's Panther Tank", this title still remains one of the best resources available on this vehicle.

Panther Model Fibel - Model Art No.448, Model Art Co. Ltd., Tokyo, 1995. S/C 164pp. Japanese text. An excellent title showing various dioramas and detailing how they were built.

Panther Variants 1942-1945 - Hilary Doyle and Tom Jentz (Colour Plates by Mike Badrocke), Osprey New Vanguard 22, London, 1997. [ISBN: 1-85532-476-8]. S/C 48pp. English text. This title concentrates solely on the variants of the Panther.

Panzerkampfwagen V Panther - Chris Ellis and Peter Chamberlain, AFV/Weapons Profile No.10, Profile Publications, Berks, 1978. S/C 20pp. English text. Another classic title, long out of print, this book provides a concise summary of the development and production of the Panther.

Panzerkampfwagen V Panther - Walter J. Spielberger & Uwe Feist, Feist Publications, California, 1968. [Library of Congress No. 68-22408]. S/C 56pp. English text. An excellent photographic study of the Panther combining combat and production shots.

Panzers at Saumur No.2 - Hiroshi Ichimura (Editor), Dai Nihon Kaiga Co. Ltd., Tokyo, 1990. S/C 60pp. Japanese text w/ English captions. While only being part of the make-up of this title (the other vehicle covered in detail is the Opel Panzerwerfer Maultier halftrack, as well as towed rocket launchers – 18 pages all up), it provides an invaluable photographic study of the Panther A and Early Jagdpanther at the French Saumur museum.

Pz.Kpfw. V Panther - Janusz Ledwoch, *Widawnictwo Militaria* Series No.03, Warsaw, 1993. [ISBN: 83-86209-17-8]. S/C 48pp. Polish text. A reasonable collection of photos covering the D, A and G variants of the Panther.

Pz.Kpfw. V Panther - Bryan Perret (Colour Plates by David E. Smith), Osprey Vanguard 21, London, 1981. [ISBN: 0-85045-397-6]. S/C 40pp. English text. An excellent, concise history of the Panther tank.

Pz.Kpfw. V Panther Tank (Revised Edition) - Norihiko Hirata (Editor), Sunday Art Publications, Tokyo, 1995. S/C 130pp. Japanese text. The revised edition of the original 1993 publication, this book is a photo history covering the Ausf. D, A, G, Bergepanther and Jagdpanther.

Pz.Kpfw. V Panther - Koku-Fan: "Pictorial German tanks of the World War Two" Series special, Bunrin-Do Publishers, Tokyo, August 1976. S/C 94pp. Japanese text. Large A4 format pictorial on the Panther.

Pz.Kpfw. V Panther - Koku-Fan: "Pictorial German tanks of the World War Two" Series special, Bunrin-Do Publishers, Tokyo, January 1979. S/C 94pp. Japanese text w/ English captions. Large A4 format pictorial on the Panther as per one above from 1976, but totally revised content.

Sturm & Drang No. 5 - Panther - Tank Magazine Special Issue, Delta Publishing Co., Tokyo, 1992. S/C 156pp. Japanese text. An excellent photo history of the Panther.

The Panther Family - Horst Scheibert, Schiffer Publishing, Pennsylvania, 1990. [ISBN: 0-88740-202-X]. S/C 48pp. English text. Another Waffen-Arsenal title originally in German translated by Schiffer, which has a very good pictorial coverage of the Panther and its variants.

- Add missing azimuth indicator
- Add weld seams to plate joins
- Fill in bolt holes on turret roof for interior travel lock if desired (they were there but were also generally puttied over by the Germans)
- Add five steel foliage loops to each side of the turret if modeling a post-Feb '45 production vehicle
- Add casting number detail to turret ventilator cover (optional)
- Do not replace 7.5cm KwK42 L/70 gun without

- properly checking your references. The Jordi Rubio and Elefant barrels have definite flaws in their dimensions.
- Add locking nut detail to the muzzle brake.

Other references include observations made in person of the Panthers at the Aberderdeen Proving Ground and at the Bovington Tank Museum, as well as through online photos of the Panther at Overloon in The Netherlands. Personal observations of the Jagdpanthers at the APG, Bovington, and at the Imperial War Museum in London were also used.

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