Sd. Kfz. 173
JAGDPANTHER

MODEL NĚMECKÉHO STÍHACÍHO TANKU STŘEDNÍ KATEGORIE
V MĚŘÍTKU 1:35

papírový plastický model / paper kit / papier modell

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The cut-out we've prepared for you is without a doubt one of the best German medium tank hunters. The building of the model is of intermediate difficulty, mainly time and patience are needed. Especially for building the wheels, their total count is 28.

PREPARATION OF THE CUT-OUT

We have to go through a quick preparation before we begin the actual construction. Black arrows point to the lines that should be slightly cut on the face to facilitate folding. The lines that should be slightly cut on the reverse side are drawn with dotted lines (-.-.-). Red lines denote the edges of the cut-out, while red diagonals mark places that should be cut out of the model (pieces will be then inserted into the holes). Red dots mark areas that should be pearced through (they will be filled up with pins or wires). The numbers of the parts that are backed with blue and yellow are parts we suggest you back with a harder backing paper, like cardboard. Don't hurry and be sure to let the glue dry thoroughly (while applying pressure). In the meantime you can prepare the pole pieces. They are drawn in the cut-out in the correct size and colour. The diameter of certain sticks will need to be reduced, so we've prepared a summary with the numbers, diameter and number of pieces:
46 (diameter 0.85 mm, length 14 mm, 1 piece); 95 (diameter 1.6 mm, length, 13.7 mm, 1 piece); 106 (diameter 2.6 mm, length 79 mm, 4 pieces); 107 (diameter 2.6 mm, length 87.8 mm, 4 pieces). The axis leading into the 1-piece entry #41 can be made from pins or wires (diameter 0.8 mm, length 25.3 mm, 1 piece). The antennae (#124: diameter 0.1 mm, length 55 mm, 1 piece) should be made with a thin wire (we recommend the E-string on a guitar). We recommend you to paint the metal pieces with model paint resembling the tank colour. The two steel ropes on the sides of the tank can be made from a string whose properties resemble a steel wire (diameter 0.9 mm, length 135 mm, 2 pieces). We recommend using lead sinkers off fishing lines for weighing down the tip-up wheels. The weights in the B wheels and C wheels are marked Z1 and Z2, respectively. The area inside the wheels is very small (especially in C) - keep that in mind when choosing a weight. Before construction transfer the index lines A-A and B-B onto the reverse sides of pieces 2, 3, 4. The preparations are complete and now we can start with the actual building of the model!

CONSTRUCTION INSTRUCTIONS.

We'll start by building the body of the tank. Carefully put together piece 1, don't forget about the openings for the machine gun and the muzzle, add parts 2 and 3 and add two stabilizing „ribs" using the marked axis'. On the axis marked AA add piece 10 and add piece 9 to BB. Let everything dry thoroughly. Now we'll move on to the „tub" consisting of piece 4, the front part of piece 5 and the two areas for the wheels 59. Take care in the exact cutting out of the opening for the axis, which should be able to freely move vertically. Be careful! Don't forget to glue the covers of the wheels 60 in between pieces 4 and 5. If you forget, you're going to have a significantly harder time gluing parts 60 later. After a thorough drying you can attach the „tub" to the finished body. There are many connecting faces, so methodically put glue on all the flaps and after they dry move on. Enclose the body using the rear (pieces 6,7,8) and we can start with the setting of the smaller pieces.

The following all belong on the top part: the cover of the gunner visor (#11), the two circular entry covers (12 and 13), the fans (14 and 15), and the two periscopes used for aiming. The first periscope is made up of a rotating pole made of pieces 17 and 18, and the actual periscope #23. The second is made up of pieces 19 and 20. Besides the aiming periscopes, the top part also holds three reconnaissance periscopes used for observing. The sides of two of them are made up of pieces 21, 22, and the rear 24 belongs on the rotating pole #16. That's the end of the setting of pieces on the top part.

The rear part of the top of the tank has two ventilators. One is smaller, create it using the pieces 28, 29 and mount it on the right side. The second one (mounted on the left side at the rear of the top of the tank) is larger and not as stiff. Build it by adjusting piece 26 into a perimeter and joining it with the base 25 on the marked spot. Close it up with the grate #27. Put some glue on the bottom of piece 25 and carefully join it to the top part of the body on the marked spot. Take care in the work on the covers 30, 31, 34, the two hinges (#35), the two holders marked 36, and glue them all on their designated spots in between the two ventilators. There is also a small lookout periscope for guarding the area in front of the rear gate entrance. To create it, join the base 32 to the actual periscope, piece 33. The last pieces on the rear part are four small grips (#37), which are glued to the designated spots. These pieces are very small so if you leave them out it will have no significant impact on the look of the model. Make the one-piece manhole cover for the crew by using piece 38 as a base. Put the axis piece 41 and the two hinges (#40) through piece 39 and glue piece 39 onto piece 38. The opening gate can then be attached to the designated spot on the rear part of piece 1. Next to the gate there you'll be putting the antennae holding piece (#42) into which you'll later mount the actual antennae (#124).

We'll now move on to the mounting of pieces on the front part of the tank. This part of the tank is mostly filled up with armaments. The armaments are made up of a 7.92 mm caliber machine gun and the main 88 mm caliber gun. Put the machine gun together using 43 and 44 as a base. Poke a hole through it using a pin. We'll use this hole for the actual machine gun, which is made with the prepared pole #46 and #45 (glued around it).Be careful! You're going to have to cut piece 45 in an angle of about 45°, so that it fits onto the front of piece 1 and is parallel with the floor. Cut out and prepare piece 47, the visor through with the driver can see. Mount it on the designated area. Carefully put together parts 78, 79 and the glue the resulting piece onto #1. This is where the muzzle will eventually be attached. After molding the two front mudguards (#62) attach the edges (piece 61) and after the glue dries, mount them on the designated spot.

We've been reminding you since the beginning to work with care and patience, but now most of all you'll need to be even more careful when constructing the muzzle. Cut out the longest and most complex piece, piece 85, and roll it up. To do this we recommend using a stronger wooden stick onto which you've attached a polystyrene prism, and rolling the gun barrel on a hard surface. This way you'll create a perfect tube. On one side it will be thickened with piece 86, onto which you'll attach a rolled-up piece 87. The other side, however, is a little more complicated. Roll piece 89 into a truncated cone and attach the rolled up #88 to the thinner side. Use piece 90 to seal up the other side of the cone. Attach #91 to # 90 and close off the entire gun barrel with the cap #92. The piece that results from this work should be attached to the gun barrel (#85) and fastened with a little bit of glue. As always, let it dry thoroughly before moving on. Mold the shield (#80) into the correct form and connect it to another truncated cone piece, #81. Close it off using piece 82. After preparing pieces 83 and 84, attach them to the reverse side of #80. Let it all dry and join it to the completed barrel. The entire gun barrel can be moved vertically using joints you can construct by using pieces 93 and 94 (molded into the correct shapes) and connecting them with the pivot piece, #95. We recommend gluing a roll of paper into piece #93. The roll should be tightly rolled around the pivot (#95). This way the paper will hamper the movement of the pivot and the muzzle should stay at the set height. Put the finished gun barrel into your work box or another safe place. It will be the final thing attached to the tank, because during the manipulation of the tank it could easily be damaged.

The equipment of the tank is located on both of its sides. The majority of these pieces will need to be stabilized by gluing some harder paper underneath, as they are quite floppy. On the right side attach pieces 63, 64, 65, 66 and three pieces of spare tread (68). The left side holds three more of these pieces (68), along with some #67 pieces.

On the rear side of the tank we'll need to attach two canisters, the hoisting jack and two exhaust pipes. The right canister is made from pieces 48 and 49. Attach it to the designated spot and create the left canister the same way, using pieces 50 and 51. Now on to the exhaust pipes. Roll up pieces #117 and paint their inside black. After the paint dries, carefully make a cut in the tubes at a 45° angle at the marked spot. Rotate the shorter piece 180° around the axis of the tube. Put some glue on the slanted parts of the tubes and glue them together at a 90 o angle. For better comprehension of these steps refer to the drawings. Close up the lower end of the exhaust with piece 118, onto which you can attach 119 after that. Place the finished exhaust pipes wherever you put the muzzle, as they will also be attached later. However the pieces connecting the exhaust pipes to the body of the tank can be attach immediately. The right one is created with pieces 53 and 55, while the left is made of 52 and 54. Use pieces 56, 57, and 58 to construct the hoisting jack and attach it to the specified area.

Now we can get to work on the undercarriage. It is made up of 8 axles, 26 driven wheels, 2 driving wheels (used to propel the vehicle) and 2 treads. Use the prepared poles 106 and 107 as axles, alternatively slip them through the holes underneath the tank (start with the shorter one at the front of the tank). Restrain them using pieces 108. There are 24 travel wheels in total, they have the same diameter, but eight of them are thicker. The construction of each is similar, it's a simple cylinder made up of two bases and the perimeter. If you make your own, smaller, harder cylinder, you can use it to roll the perimeter pieces - they will be more accurately rolled and therefore it will be easier to glue the wheels together. The thinner wheels are created using 109, 110 and 111, don't forget to glue the prepared Z2 weights inside. The thicker wheels are made of 109, 110 and 112, use your Z1 weights for them. Spread the wheels out according to the diagram and using a drop of glue, fasten them to the axles. To make the driving wheels glue the cog-wheels together- they are the edges. Glue the inside pieces 96 and 98 together so that they cover each other and let the glue dry while applying pressure. That way you'll have made the outer cog-wheel. Use the same process with

pieces 97 and 98 to glue the inside cog-wheel. After letting the glue dry connect both parts of the driving wheel (the cogs) together with piece 99 (which should be rolled up). Careful, the teeth of both cog-wheels have to be square against each other, later on the tread will be mounted on them. Attach piece 100 onto the outside of the wheel, roll up piece 101 and attach it to the inside face of the wheel - it will be the connecting piece between the wheel and the tank body. The last two wheels are once again simple cylinders. Roll up piece 104 and attach pieces 102 and 103 to its flaps. Attach both wheels to the tank using the rolled-up connecting piece 105. We now have all wheels mounted and all that's left is the attaching of the tank treads. These are made with the pieces 113 and 114. Don't forget to cut out openings (marked on piece 113) where the treads will be attached to the teeth of the cogs. The direction of the treads is marked with red arrows. You can attach the shields covering the wheels (pieces 115 and 116) to the sides of the tank.

The model is almost finished, all that's left are some smaller pieces that could be damaged during the construction. Attach the headlight to the left mudguard (created with pieces 74, 75, 76 and 77). Other equipment is made with the pieces 70, 71, surrounded with piece 73. Then attach the handles (#72) to the ends and using two #69 pieces attach it to the designated spot on the left side of the tank. The steel ropes 121 on the sides of the tank are made with the prepared string painted gray. Glue each end onto a loop (piece #120) These steel ropes are attached to the tank with the help of four handles (roll up #123 and attach it to #122). Pick-up the two exhaust pipes and the gun barrel and attach them to the designated areas. The final attachment is the antennae (#124), which you can seal with a drop of glue.

We hope you like the model and that you're satisfied with your work

Sd. Kfz. 173 JAGDPANTHER

The perfect medium tank pursuer was created by modifying the medium category tank Pz V. Panther. The majority of authors considers it the best WW2 tank hunter in its category in the world.

Its construction began the 6th of January, 1942, when the company Krupp received an order from the Waffenamt to create a tank pursuer using the Panzer IV medium tank as a blueprint. The requirements were for an enclosed panzer frame with an interior protected from the front with a 80mm thick armor and a 40mm armor on its sides. The armaments were to be a PaK 8,8cm L/71 anti-tank cannon. The machine being created under the name Panzer Selbst-fahrlafette IV could move at speeds of up to 40 km/h. At the beginning three prototypes were ordered, but August 3rd the Waffenamt changed its requirements and ordered a reconstruction of the entire concept onto the undercarriage of a more modern medium tank, the Panzer V. Panther. The armaments were to remain the same.

The development went ahead fairly quickly because information from the previous program was used. At the end of August they demonstrated a a 1:10 scale wooden model of the machine, in November their model was fuzz -size. There was an assessment of the model during 1943, additional reparations were made and preparations for the building of a prototype were underway. At the same time the company Damler Benz was also working on another project, a Sturmgeshutz category machine also using the Panzer undercarriage. Its armament was an 88mm Stuk 43 cannon. The MIAG company continued the program, but didn't get further than a study.

The order to create a prototype was finally given to Damler Benz in Berlin. The prototype was finished in November 1943 and demonstrated to Hitler on the 20th of December. Mass production was started the following year. The military code name was SdKfz 173, more commonly known as Jagdpanther. In official documents the full designation was 8.8cm PaK 43/3 auf Panzerjäger Panther.

The undercarriage, power unit, trans-mission and other devices were fully taken from the Panzer tank. The tank frame was of compact shape with steeply stoped walls (the front side had the sharpest angle to the ground). The slope of the walls significantly affected the passive defence of the interior, and the walls weren't exactly thin to begin with. The front side reached a thicknes of 80mm, the side walls and rear wall were 45mm and 40mm thick, respectively. Even the roof was sloped slightly forward. The main weapon was guarded by a massive Saukopfblende-type shield which spread from the edges of the groove through which the gun barrel emerged to the gun barrel itself. On the later models there was a group of four bolts on the top and bottom of this „turtleneck". The cannons on the first machines created had a one-piece barrel, eventually they began installing the Pak 43 version with a built-up barrel. The supplementary weapon against infantry was a MG 34 7.92 mm calibre machine gun, mounted to the left (when viewed from the front) of the cannon in a semi-spherical opening on the front side. The tank carried 57 rounds of ammunition for the cannon, and 600 cartriges for the machine gun. The crew usually had two MP 40 machine guns, in case they had to abandon their tank. The driver saw through a small opening to the right of the cannon. The crew was made up of five men: the commander, driver, gunner and two other men to load the ammunition. Two circular type covers providing the entrance into the tank, two covers for telescopic periscopes, the kidney-shaped gunner lookout cover, and the top part of the fan protected by a circular plate, were also located on the roof. The rear wall had a massive one-piece door which served as an entrance for the two ammunition loaders, and to the right of it there was circular cover through which the ammunition could be loaded. The fan cover, air recycling and other characteristics of the motor cover weren't any different from Panther tanks. There were small differences between most vehicles; there were several types of exhaust tubes and the first machines had a double visor for the driver, for example. Some vehicles were equipped with two headlights, a standard one on the front right mudguard and a second one attached to the rear lower edge of the tank body. Certain Jagdpanthers were modified in order to be used as commanding vehicles. They had a different radio equipment, apart from the usual radio there was another radio with a dish antennae. Towards the end of the war the project office completed a study of a new innovated version equipped with a PaK 80 L/55 128mm calibre cannon. The new version was somewhat different in terms of shape; the frame was shifted to the rear and they were even contemplating using an available under-carriage of a Panther II medium tank. Due to the rapid succession of wartime events this program never got off the ground.

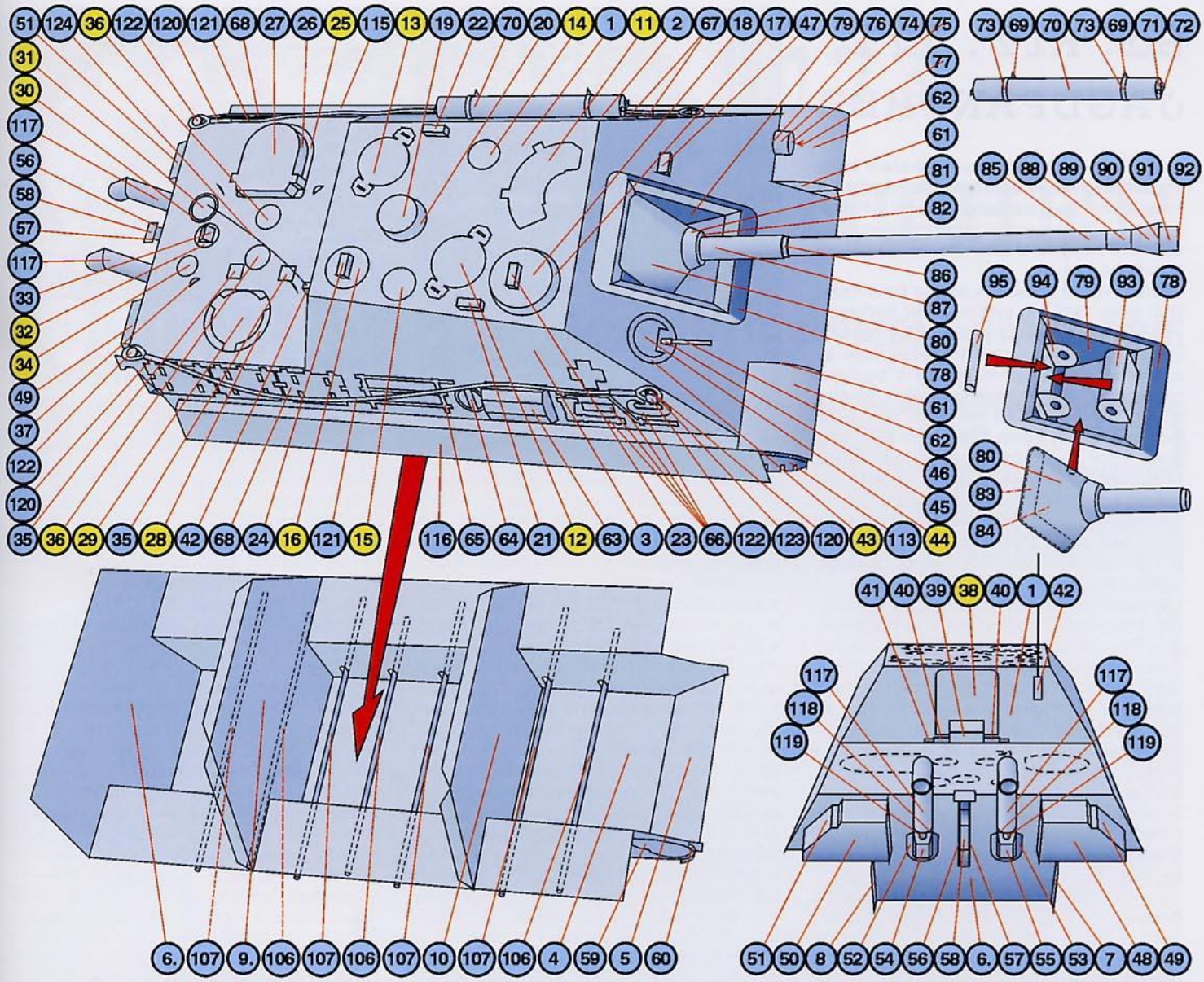
Many mass produced Jagdpanthers were improved with anti-magnetic Zimmerit paste which was applied several ways.

Production got under way in February of 1944;when the first tanks were coming off the production zine. The armour frames were being assembled by the Eisenwerk Kirch-merser company in Brandenburg, the cannon was supplied by MIAG. Even Maschinenfabrik Niedersachen in Hannover was building the vehicles in December 1944. Despide many problems and a lack of material their production continued until the very end of the war. Even in April 1945 MIAG delivered the last 3 tanks to the armed forces.

Jagdpanthers were classified in the schwere Panzerjäger Abteilung - heavy tank pursuer division. Experience proved that it was successful design, with resistant armour and a highly piercing cannon. The crew appreciated these vehicles for their manoeuvrability on and off-road despite their large mass. Their weak point was a high fuel consumtion, which caused many in-conveniences to armoured units. While travelling on road a Jagd-panther used up 280 litres of fuel per 100km, but in particularly demanding terrain it could „swallow-up" an unbelievable 700 litres of fuel per 100km. Despite this handicap it was an outstanding machine whose appearance was a nightmare for allied tanks. However even with its advantiges, the 384 tanks produced couldn't change the course and results of the war.

Jagdpanther - basic technical data

length	9.87m
width	3.21 (3.42 with added protective side plates)
height	2.72m
mass	45.5 t
engine	Maybach HL 230 P30
engine power	700 hp (3000 rpm) 600 hp (2500 rpm)
range on road	250 km
range off road	100 km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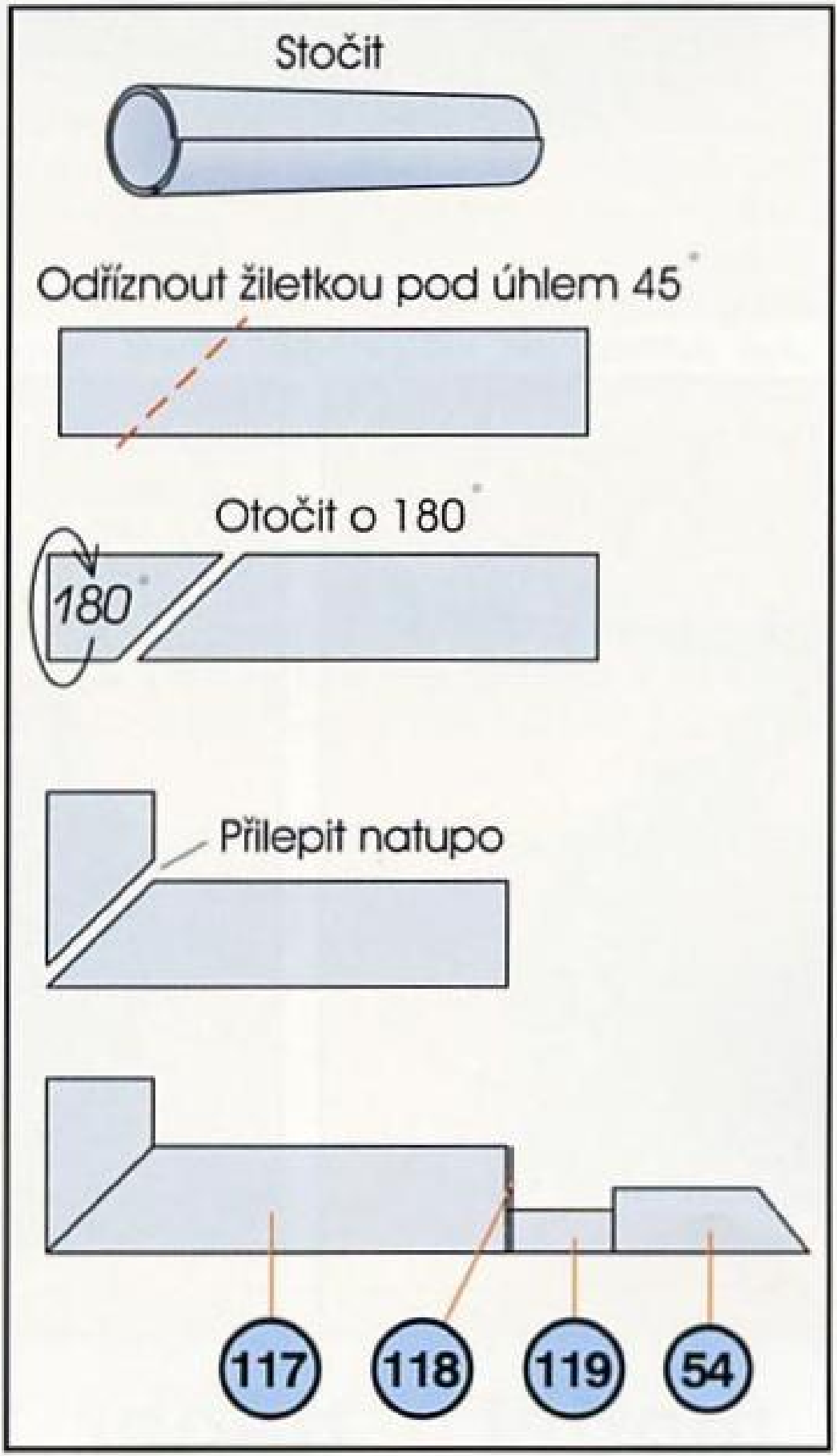
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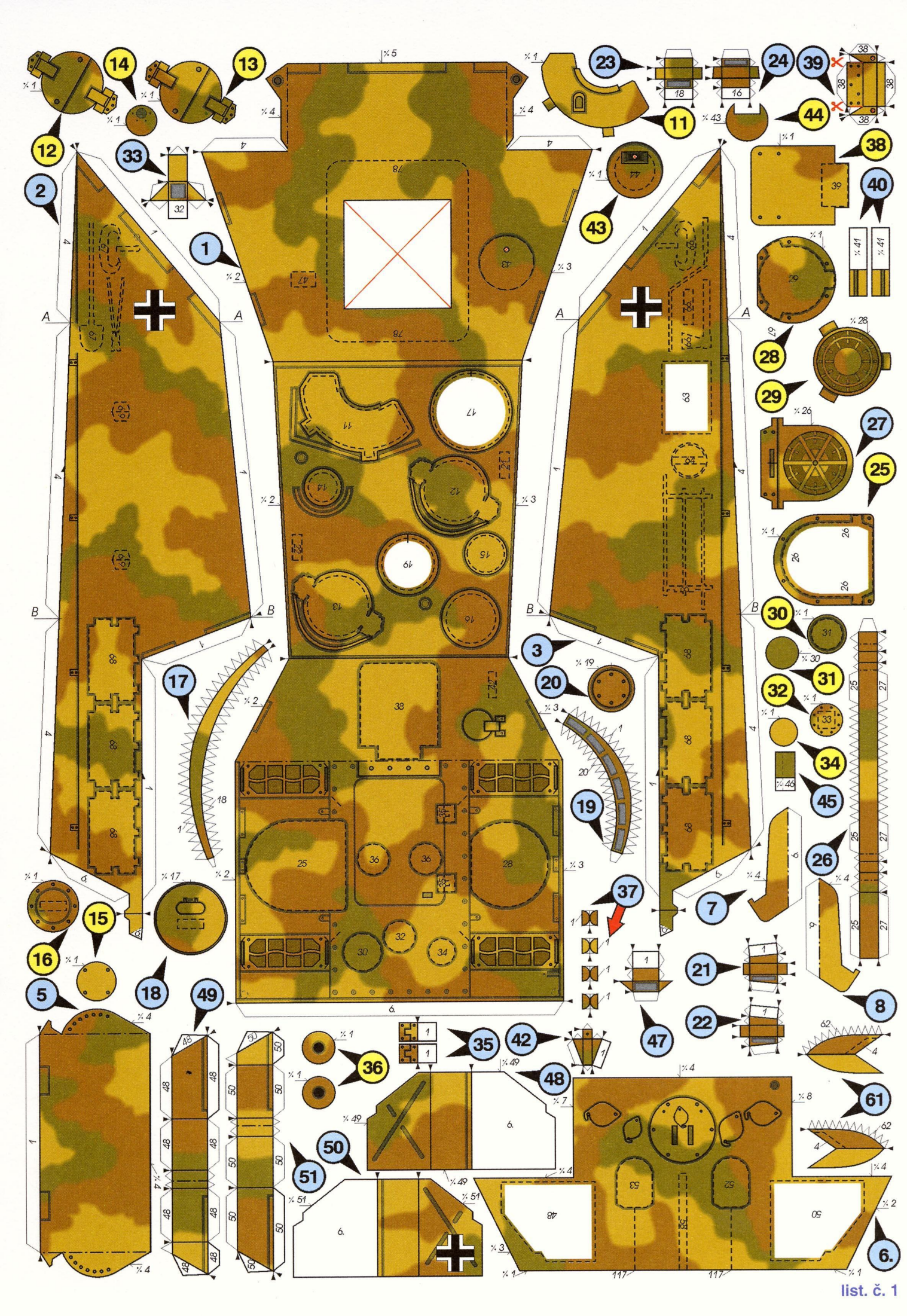

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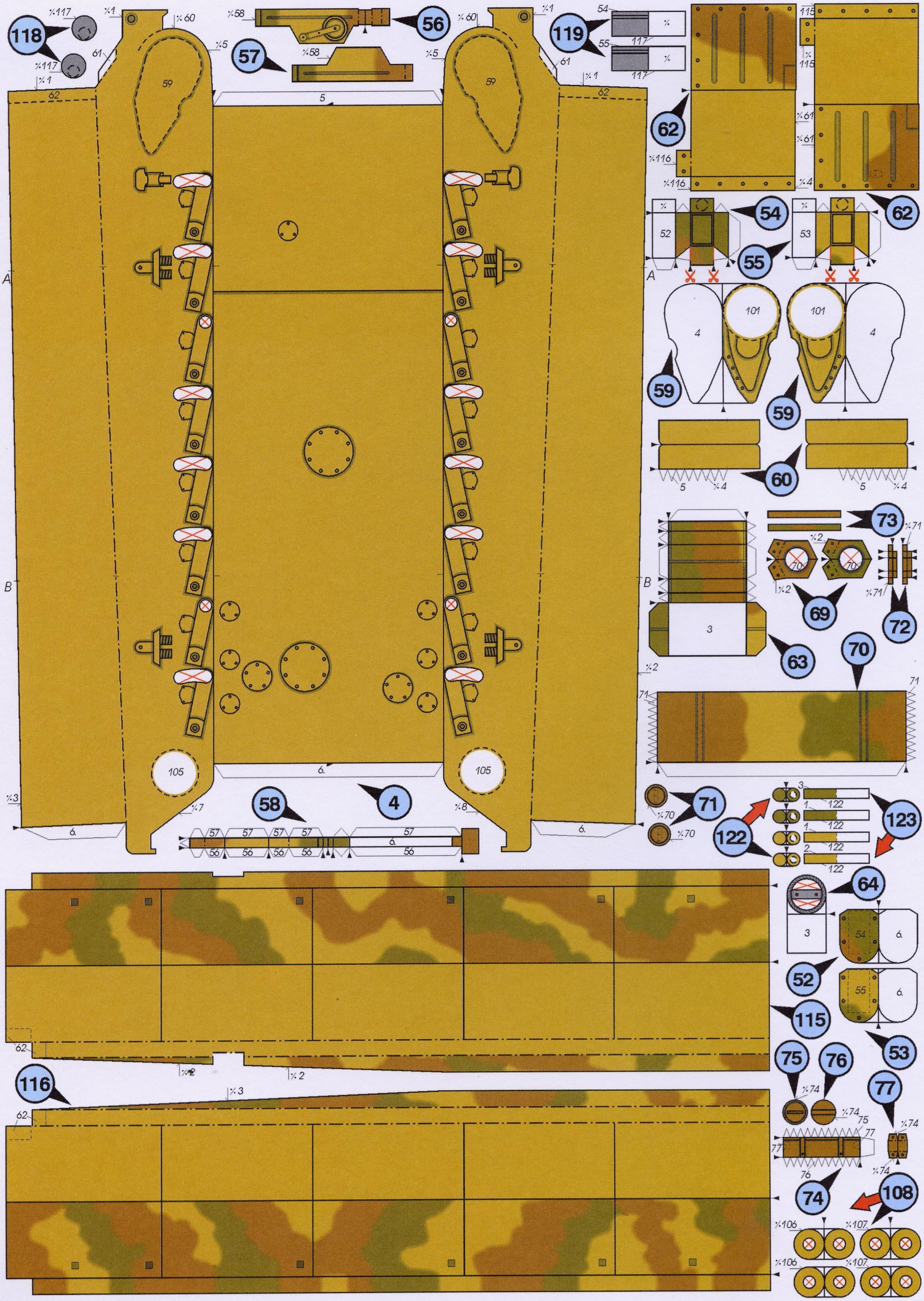
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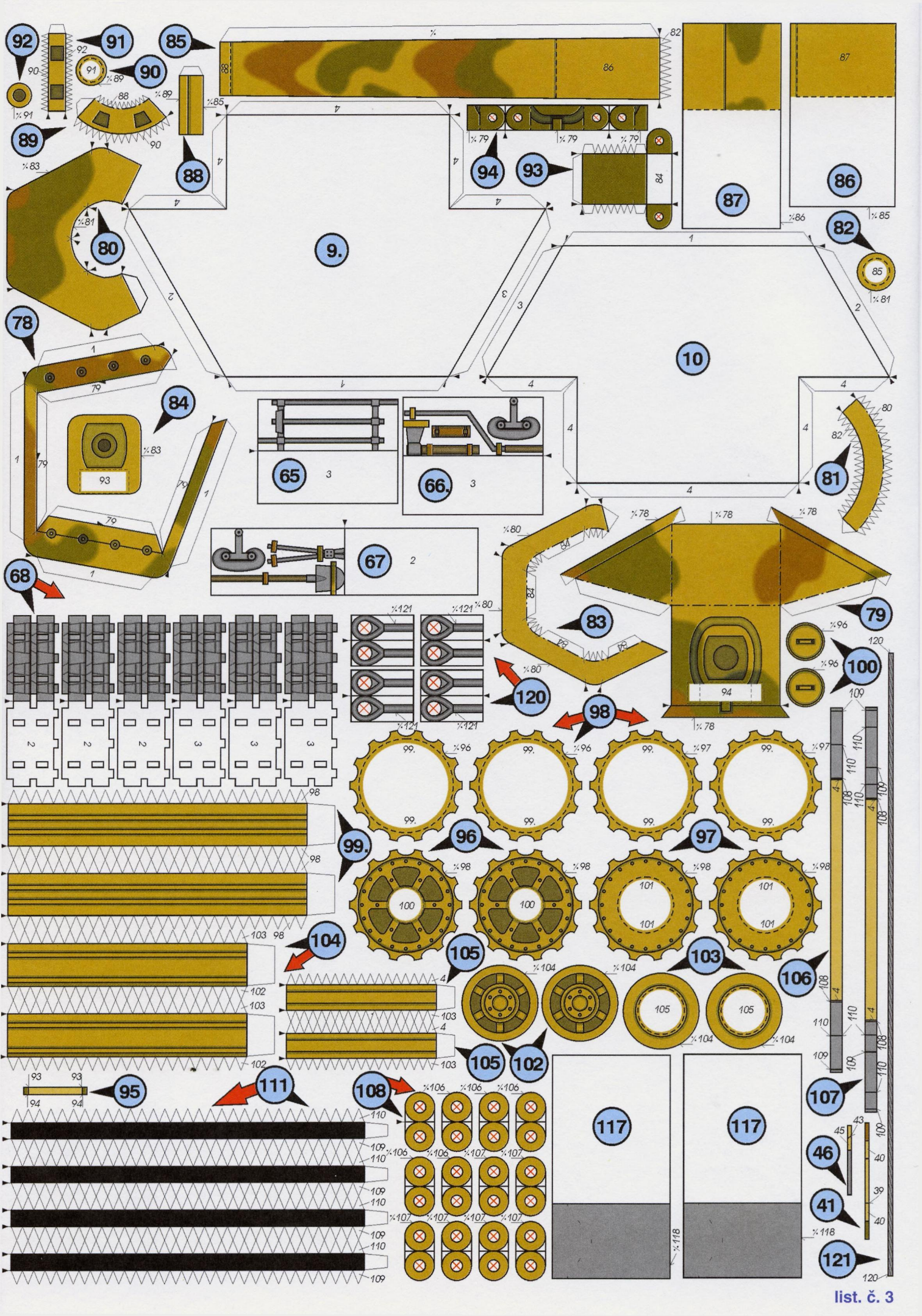
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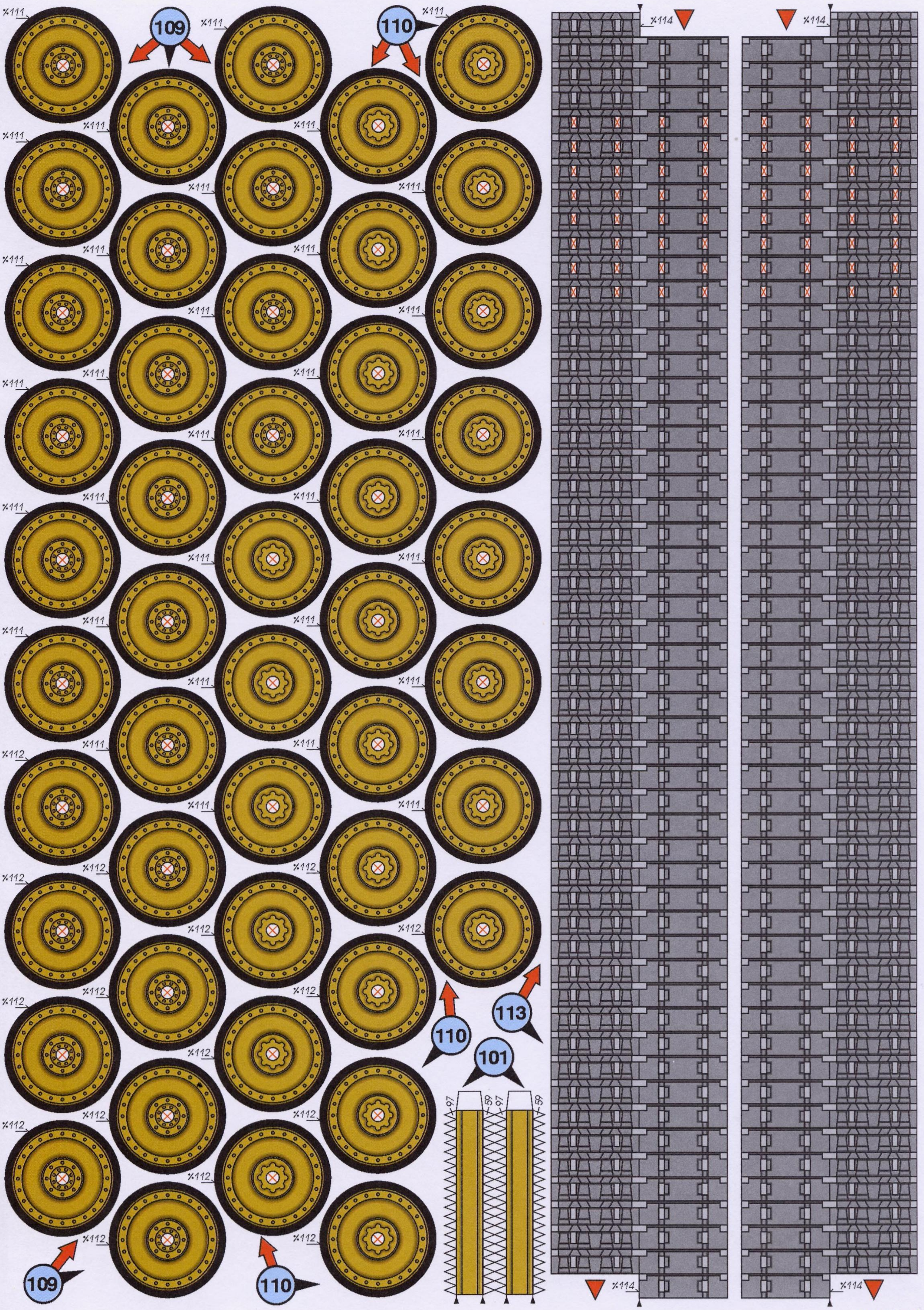
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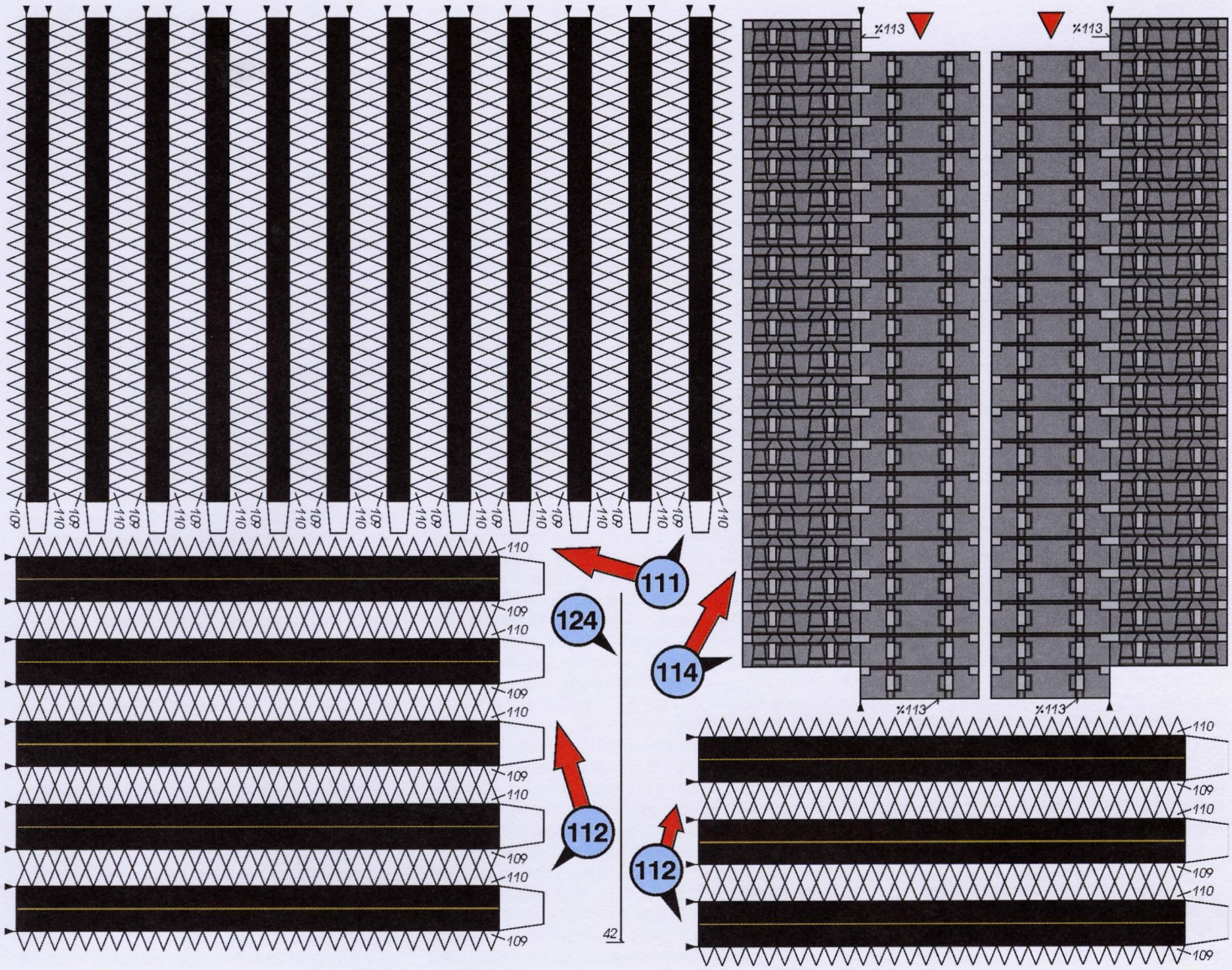
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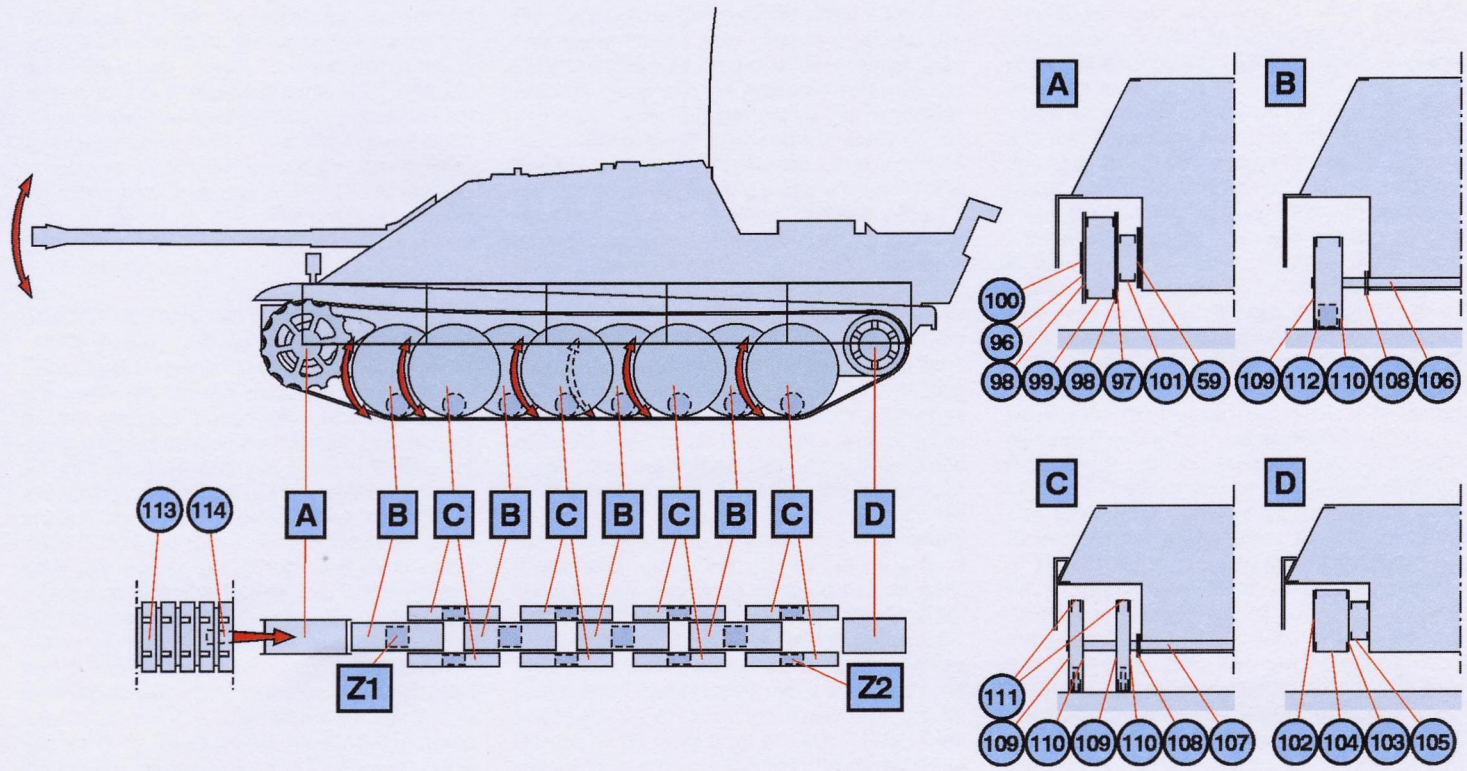
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