

53503 Assembly Instructions for Bridge »Donau« Double track, 100 cm long, can be shortened



... wie im Original

NOCH GmbH & Co. KG
Postfach 1454, D-88230 Wangen
Internet: www.noch.de oder www.noch.com

Read and follow these safety precautions and instructions carefully before use. This product is a model building item and not a toy. For appropriate application and use, tools like a sharp cutter, a sharp pair of scissors and special glue are necessary. **Therefore, appropriate work with this model building product does pose risk of injury!** For that reason this product is not for children! **Keep this product as well as all accessories (glue, paints, cutter etc.) out of reach of children under 3 years of age!** For the use of paints and glues please follow these safety precautions carefully: Do not eat, drink or smoke. Avoid any contact with eyes, skin or mouth. Do not breathe any vapours. Keep away from ignition sources. Follow the instructions and safety precautions of the manufacturer carefully. **First aid for contact with eyes:** Flush the eye with clean water holding the eyelid open. Immediately consult medical advice. **Keep these instructions safe.**

1. Package Contents

The following items should be enclosed:

Package Contents

Brücken-Fahrbahn

2 top side bridge bases	plywood, 500 x 145 mm
2 underside bridge bases	plywood, 360 x 125 mm
1 underside bridge base	plywood, 280 x 125 mm
2 stringboard bridge bases	plywood, 500 x 15 mm
4 stringboard bridge bases	plywood, 250 x 15 mm

Bridgehead

2 inside parts	plywood, 133 x 105 mm
4 side parts	plywood, 127 x 60 mm
2 base parts	plywood, 133 x 56 mm

Pylon Plastic Parts

Bag A2	pier tops	14 parts
Bag E1	segment holders and pillar parts	12 parts
Bag F	pillar parts	16 parts
Bag F1	pillar parts	26 parts
Bag G	pillar parts	6 parts
Bag I	counter bearings	8 parts
Bag J (3x)	bridge caps	60 parts
Bag K (2x)	assembly aids 10 pieces	20 pieces
Bag L (2x)	bridge railings red	12 parts
Bag L1 (2x)	bridge railings red	8 parts
Bag M	suspension rope, 1 rope, 2 terminal strips, 10 screws	
Sheet (2x)	embossed cardboard wall plates	2 pieces

We recommend taking an inventory of the contents. If something is missing, please contact us for assistance.

2. Base Construction

The base of a model railroad layout should be of low vibration and without deformations. We recommend a blockboard that is mounted on a stable frame (for example a NOCH aluminium frame).

3. Tools and Materials

In order to properly assemble the bridge, we recommend the following tools and materials:

- Small crosstip screwdriver
- Hand or electric drill with 1,0 mm and 2,5 mm drill bits
- Small water-level
- Side cutter
- Small iron rasp
- Small angle with approximately 8 cm brackets

- Grey paint and paintbrush for painting the visible wooden parts.

4. Glue

We recommend a liquid, plastic safe model glue for the plastic parts. Apply white glue for the wooden parts. When you assemble wood and plastic parts, use all purpose glue or contact glue. Please visit your local hobby shop to purchase the glue.

5. Assembly

Note: Take enough time for assembling the bridge. The different glued parts need sufficient time to dry. Please keep to the given time and profit from our experience.

In this way the bridge will give you satisfaction and enrich your layout.

The bridge is planned with two modern piers in the middle. But you can also share the bridge 1/3 to 2/3 if your model landscape requires (e. g. 2/3 water and 1/3 track or road). To avoid mistakes we first recommend to stick the parts together without glue. Your work will be easier if you mark the letters on the parts with a pencil when taking them out of the bags. So you will not mix up the parts.

Start with the gluing of the plastic parts from bag A2 (see illustration 1.)

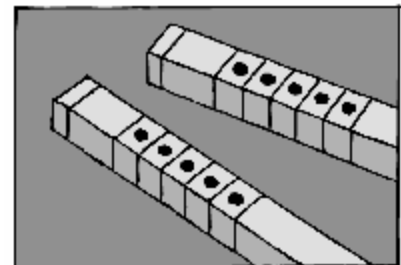


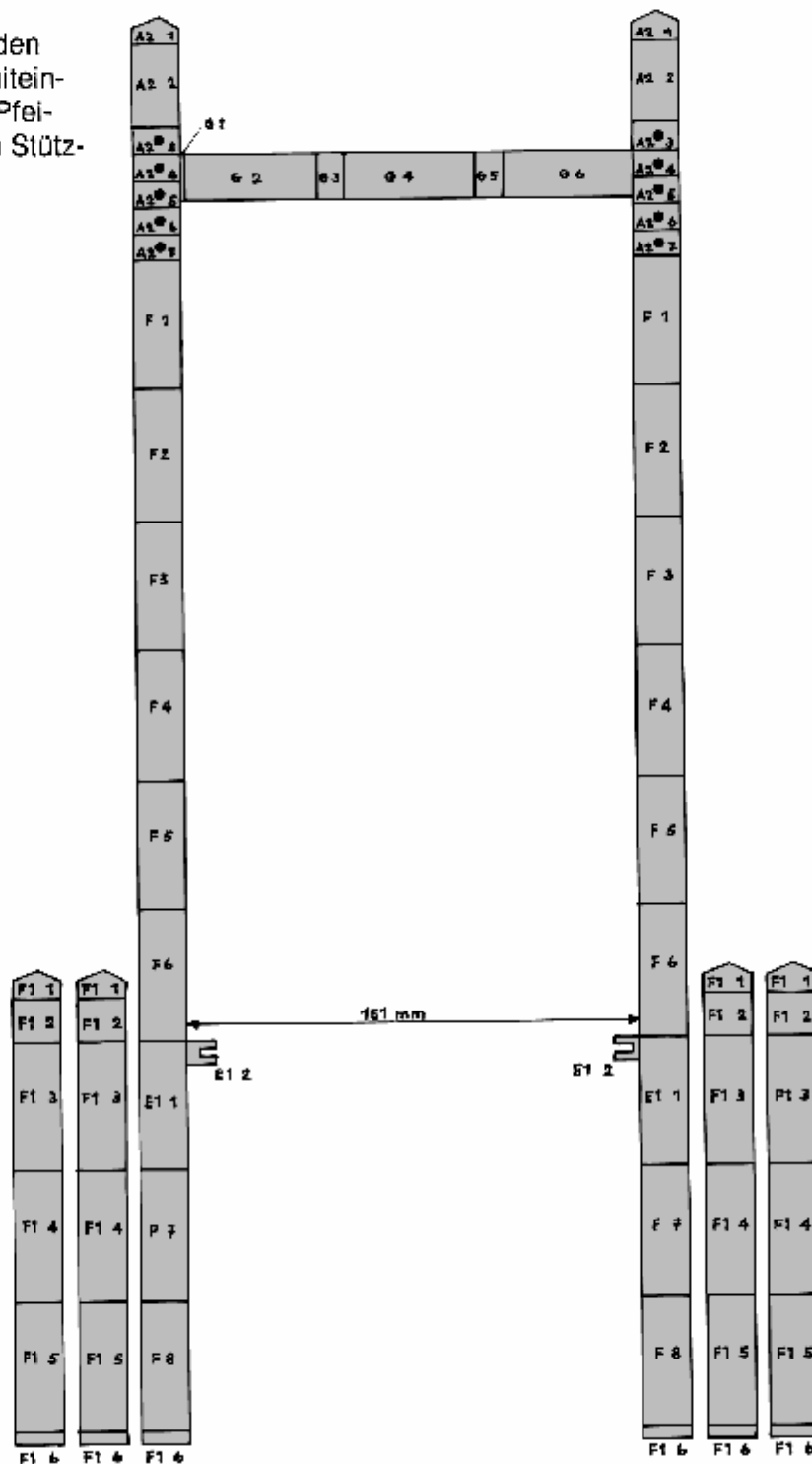
illustration 1

- Cutter for deflashing the cut angle parts and bridge caps

Pfeiler-Brücke

»Donau«

Die Abbildung zeigt den Aufbau der beiden miteinander verbundenen Pfeiler und der seitlichen Stützpfeiler.



Make the pier tops A2(7) longer with 6 pillar parts from bag F. Then assemble the 6 pillar parts from bag G and join the two piers with them (directly below the joint A2(3) - A2 (4) (illustration 2).

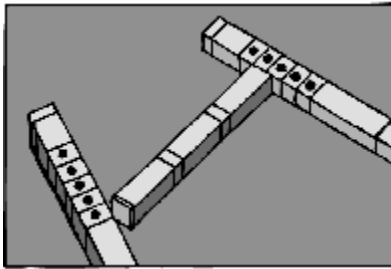


illustration 2

Take care that the piers are parallel to each other and that the glue can dry while the piers lie on an even underlay.

Take the two pillar parts E1(1) and the two segment holders E1(2) from bag E1. Apply glue on the backside of the segment holders and clip them into the holes of the pillar parts. Then adjust them (right angle).

Now (after sticking the parts together without glue and the marking of the parts with a pencil from bag F1) you can glue both pillar bottom parts. Make both pillar parts E1 (1) longer with 2 pillar parts F7-F8. Then glue 4 similar pillars together with the parts from bag F1. The two remaining bottom plates F1(6) should be stick as closing parts under the two pillars with the segment holders. Now you can glue 3 pillar parts together, one pillar F1 to the right and one to the left beside the two pillar parts F with the segment holders. It is very important to glue all plastic parts well together and to let them dry 24 hours. Lay all parts on an even surface (e. g. glass), and check their positions.

If it is necessary to make the bridge shorter, you should shorten the roadways, the stringboard bridge bases and the underside bridge bases by the same size from the bridge ends before assembly.

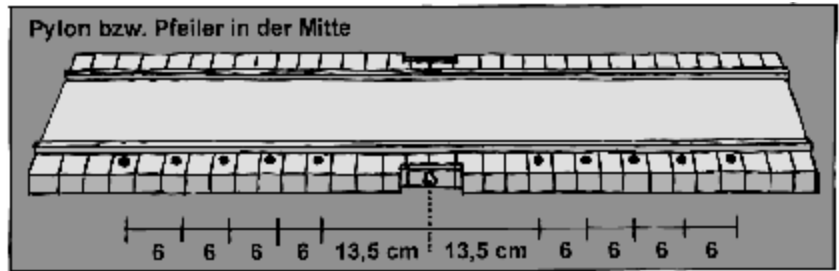


illustration 4

Now you have enough time to assemble the bridge base. Take the two top side bridge bases (500 x 145 mm), apply glue on the short sides and glue the two bridge bases together on an even underlay making a 1m long bridge base. (illustration 3). Also this glued part should dry 24 hours.

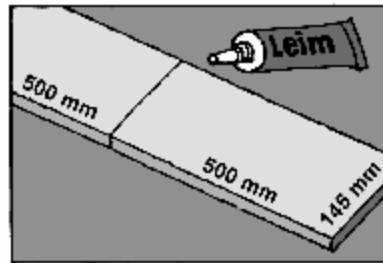


illustration 3

Then glue on all bridge caps with contact glue. Begin with the 4 narrow cap sections and the 4 notched caps from bag E1 on both sides of the middle of the bridge base. On the sides glue on the bridge caps from the bags J until the bridge ends.

After you have glued on all bridge caps you have to drill the holes for the rope. For this purpose you need a 2,5 mm drill. First mark the holes on the upper side of the bridge caps, closely to the upright standing inside edge.

Calculate the distances from the middle of the bridge evenly in both directions. Begin with the first hole at 3,5 cm. The next 4 holes are positioned each 6 cm from each other. (illustration 4).

Attention: When drilling the holes keep the drill sloping outwards in order not to touch the stringboard bridge bases. (illustration 5).

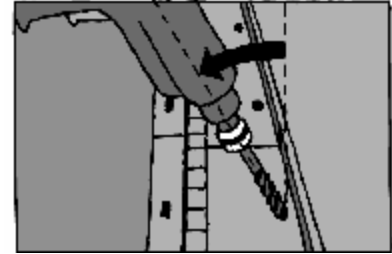


illustration 5

Now turn the top side bridge base upside down (bottom side upwards). Now we glue the stringboard bridge bases. Begin in the middle of the bridge again. First mark the middle of the two 500 x 15 mm stringboard bridge bases. Now apply white glue on one longitudinal edge, line up the middle marking to the middle of the bridge and place the stringboard bridge base on the bottom side of the top side bridge base, directly at the sides of the bridge caps. Place the two short stringboard bridge bases in the same way to the right and to the left of the middle part. Do the same on the other side.

To support the stringboard bridge bases you have to glue on the glue aids. They should prevent that the stringboard bridge bases snap. (illustration 6).

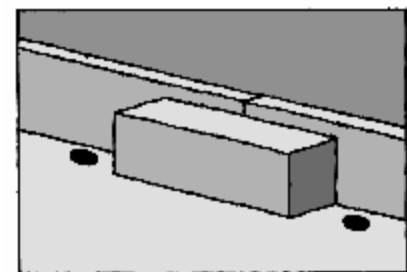


illustration 6

Place one glue aid in the middle, glue aids on the joints and at the ends of the stringboard bridge bases (on both sides). The remaining glue aids will be glued on the free places on the sus-

pension bridge bases after the tightening of the red rope.

Also here it is necessary that the glued parts can dry. Glue the 3 underside bridge bases on the glue aids only after tightening the rope.

The next step is to glue the two bridgeheads together. Here you have to mark the positions of the counter bearings on the two inside parts (133 x 105 mm) (illustration 7).

A Pfeiler = A pier

B eingleisig = B single track

C eingleisig = C single track

B zweigleisig = B double track

C zweigleisig = C double track

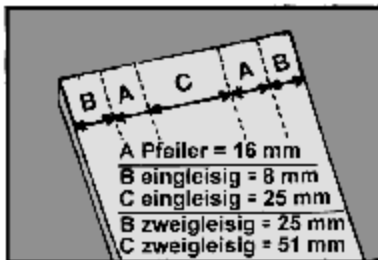


illustration 7

Now glue with white glue 3 glue aids on each of the two base parts

133 x 56 mm and 2 glue aids on each of the two inside parts 133 x 105 mm flushly with the outside edges (illustration 8).

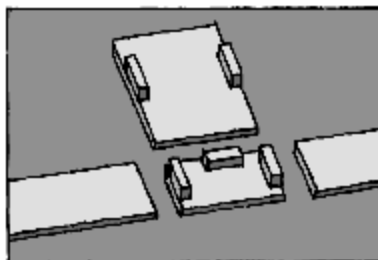
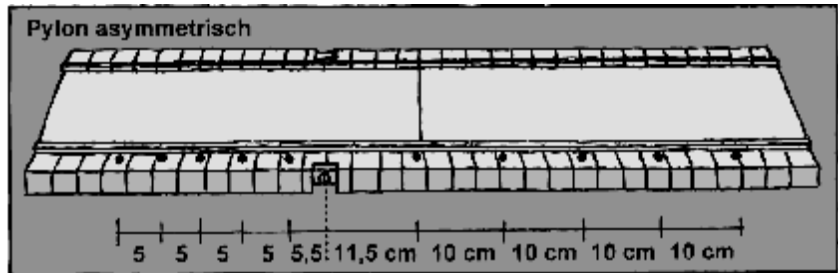


illustration 8

As soon as the glue aids are dry, apply glue on them and apply glue on all edges where the glue aids are placed. First place the inside part on the base part and then both side parts on the inside part and on the base part. Take care that the parts are exactly placed.

As soon as these parts are dried, you can glue the cardboard wall plates on the three outer sides on each bridgehead. For this purpose the NOCH spray glue "Haffix" (item ref. 61150).

is very suitable. Spray the glue on the wood and on the cardboard walls as



well.

illustration 9

The ready bridgeheads should be tentatively put on the ends of the bridge bases to check their exact seat.

The side parts reach over the string-board bridge bases and touch the bottom side of the bridge caps. Glue the bridgeheads in this position.

If all glued parts are dry, glue the two 3-fold pier underparts with the segment holders in the free space in the middle of the bridge base with contact glue.

If you want to place the pylon asymmetrically on the bridge (2/3 to 1/3), so the short top side bridge base would be 36 cm long and the long top side bridge base would be 64 cm long.

According to this the route holders and the notched bridge heads are to be glued at the side (as described before).

The drill holes begin on the short route side at 5,5 cm from the middle of the pylon. The next 4 holes are each in a distance of 5 cm from each other. At the long route side drill the first hole 11,5 cm from the middle of the pier.

The following 4 holes have a distance of 10 cm each (illustration 9).

Glue the pier tops and let them dry 24 hours (very important!)

6. Suspension rope

Take the red rope, the end with the knot, and lock it in place as follows:

Screw one of the short clamp strips with 2 screws parallel to and in a dis-

tance of 2,5-3 cm from the string-board bridge base in front of a hole that is next to the middle of the bridge (illustration 10).

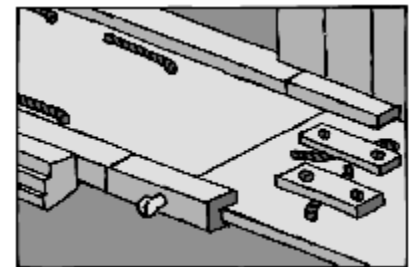


illustration 10

Now pull the rope with the thread aid from the bottom through the first hole, then through the lowest hole of the right pier top, then down to the first hole after the middle on the same bridge side.

Now pull the rope from the bottom through the next hole, up to the second hole of the pier top, and then down to the next outside hole.

From there pull the rope under the underside bridge base through the third hole and then through the third hole in the pier top.

If you are ready with the right side, turn to the left side and tighten the rope in the same way, but in the reversed order.

The end of the rope is in the hole that is placed next to the left pier (opposite to the beginning of the rope).

Screw the second clamp strip on the underside bridge base and pull the end of the rope through it but do not lock it in place by screwing yet.

Now begin to tighten the rope. Begin again at the first hole and pull the rope in a way so that it is tight but not too strongly tightened.

Go on in the same order as you did when pulling through the rope. Then pull the end of the rope under the second clamp strip, tighten it and screw the clamp strip tight. So the end of the rope cannot slip.

Check the entire rope tension again. Then make a knot into the rope after the second clamp strip and cut off the rest of the rope. Cut off the sticking out screws on the top side bridge base with a side cutter and make the screws smooth with an iron rasp.

Check the bridge if everything is all right. Then glue the remaining glue aids to the inside of the stringboard bridge bases and then glue the 3 underside bridge bases on them (the short part in the middle and the two longer parts outside). Then apply gray paint on the wooden parts which can be seen (the colour of the paint should match the colour of the plastic parts).

Now glue the 4 counter bearings and fix them with contact glue on the inside of the two bridgeheads and on the underside bridge bases, on the places that you marked in the beginning.

Now your bridge is ready for being inserted into your model layout and you can create the landscape at the bridge ends. After laying down the tracks and scattering ballast on the bridge base you can glue on the bridge railings.

We wish you much fun building your bridge and we are sure you will be successful. Should you have any problems, please feel free to contact us and we will help you.

If the pier feet are too short, ask your local dealer for pier parts. Read the information in the NOCH Catalogue.

Your NOCH Team