WERKSTÜCK Edition

001 Lounge Chair by Sigurd Larsen

HORNBACH Home Improvement Superstores
Here we go. Build your own Lounge Chair.
MATERIALS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>DIN 934 M4 hexagonal nut, brass</td>
<td>12 pieces</td>
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<tr>
<td></td>
<td>Raised countersunk head wood screw with slit 3.5×30 mm, brass</td>
<td>4 pieces</td>
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<tr>
<td></td>
<td>Universal countersunk screw with I-star, 3×16 mm</td>
<td>200 pieces</td>
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<tr>
<td></td>
<td>Universal countersunk screw with I-star 4×50 mm</td>
<td>24 pieces</td>
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<tr>
<td></td>
<td>Countersunk screw with slit, 4×30 mm, with sleeve nut, 4 mm, brass</td>
<td>10 pieces</td>
</tr>
<tr>
<td></td>
<td>Countersunk screw with slit, 4×50 mm, with sleeve nut, 4 mm, brass</td>
<td>8 pieces</td>
</tr>
<tr>
<td></td>
<td>Mamutec beige and blue furniture strap, 80 mm</td>
<td>16 m</td>
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<tr>
<td></td>
<td>Light or dark brown hard oil</td>
<td>375 ml</td>
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<tr>
<td></td>
<td>Masking tape</td>
<td>1 roll</td>
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</tbody>
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2× beech right-angle mould, 20×40×950 mm

Beech Multiplex, 18×1250×1100 mm
What you should know before you begin:

You can build the Lounge Chair on your own. However, it's better to work in a pair.

The wood will be treated with oil at a later stage and has to dry for at least eight hours thereafter. You should therefore plan in at least two days for this project.

Brass screws are a little softer than the tools with which they are used. To make sure they do not break or scratch, do not screw them all the way in with the electric screwdriver, but rather make the last few turns by hand with a manual screwdriver.

The chair can alternatively be made from birch wood.

<table>
<thead>
<tr>
<th>TOOLS</th>
<th>You need</th>
<th>Useful, but not essential</th>
<th>Better safe than sorry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jigsaw</td>
<td>Handheld staple gun</td>
<td>Ear protectors</td>
<td></td>
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<tr>
<td>5 × screw clamps</td>
<td>Staples</td>
<td>Dust mask</td>
<td></td>
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<tr>
<td>Electric screwdriver</td>
<td>Mobile drill stand</td>
<td>Protective goggles</td>
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<tr>
<td>Bit set</td>
<td>Hemp string</td>
<td>Work gloves</td>
<td></td>
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<tr>
<td>Wood drill set</td>
<td>Nails</td>
<td></td>
<td></td>
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<tr>
<td>HSS countersink</td>
<td>Hammer</td>
<td></td>
<td></td>
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<tr>
<td>Flat brush</td>
<td>Delta sander</td>
<td></td>
<td></td>
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<tr>
<td>Sandpaper (G120/G180/G240)</td>
<td>Guide rail</td>
<td></td>
<td></td>
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<tr>
<td>Scissors</td>
<td>Cork sanding block</td>
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<td>Mole wrench</td>
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<tr>
<td>Ruler</td>
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<td></td>
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<tr>
<td>Lighter</td>
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<tr>
<td>22 mm Forstner bit</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>300 mm set square</td>
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<td></td>
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<tr>
<td>Pencil</td>
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<tr>
<td>Cotton cloth</td>
<td></td>
<td></td>
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<tr>
<td>Screwdriver</td>
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</table>
DAY 1

PREPARATION
First, the basic components have to be sawn out of the wooden board. Precisely cut out the paper stencils for this purpose. Make sure you also cut out the circular markings for the Forstner bit, then stick the parts to the Multiplex board individually with masking tape. Now trace the borders on the wood with a pencil. Be sure to also mark the drill holes and roundings shown on the templates at the same time. Remember that you have to draw all parts twice, as shown in the diagram on p. 11 / Step 02. You should keep the templates, in case you need them for comparison later. Number the individual pieces as on the template (A1, B1, B2 etc.). This will make assembly easier later.
PREPARATION 02

As the chair has no sharp edges, the corners marked C and D must be rounded beforehand with the Forstner bit. To do this, place the Forstner bit (22 mm) in the middle of the circular marking and drill it out.

Then saw all straight parts with the jigsaw (not the rounded ends yet!). To do so, place the guide rail carefully along the lines. You can now saw out all the parts with the jigsaw.

Tip:
If you have difficulties with the size of the Multiplex board, you can divide it with the saw in order to work with it in smaller pieces.
If you do so, take care not to saw over the individual elements (A, B, C, D).
If you tape over the cutting lines with masking tape, the wood will not crack when sawing. The template markings will still be visible through the masking tape.
Ideally, you should place wood debris under the drill holes so they do not fray. It is important that you hold the drill perfectly vertical. This is easier with the help of a mobile drill stand.

PREPARATION 03

Now the holes need to be prepared for the countersunk screws.

Before drilling you can lay the left (A1, B1, C1, D1) and right (A2, B2, C2, D2) pieces over each other and fix them with screw clamps.

Then drill vertically with a 5 mm drill through all pieces.
PREPARATION 04

So that the brass screws end up flush with the wood, you should prepare all visible drill holes* with a countersink. Drilling down 2 mm with the countersink is enough.

* Arrow down: visible on the front
* Arrow up: visible on the back

PREPARATION 05

Now comes the finishing of the round ends. Here, too, you can save yourself a few steps if you place the wood parts that belong together on top of each other and fix them with screw clamps before you saw with the jigsaw. Don’t forget to smooth the edges with sandpaper afterwards.
Once all the wood elements have been prepared, it is best to use the G120 sandpaper and sanding block to smooth the corners and surfaces. Alternatively, you can also use a delta sander. Give the parts a second treatment with the G180 grit. And if you want a particularly fine finish, use G240 thereafter, too. Make sure all parts are sanded to the same degree.

Note:
It is important that parts a1 and a2 are exactly the same length. d1 and d2 should also be the same length.
Now use a rubber to erase all the markings you have made on the wood. Apply plenty of oil to all parts with the flat brush and spread it with a cotton cloth. The oil should then be left to permeate for eight hours. The parts can dry optimally on all sides if they hang from a string. Alternatively, you can affix nails to a spare piece of wood and hang each part on it.

Tip:
You can apply oil to a spare piece of wood as a test to see how the material reacts and how much oil you need. The oil permeates slowly, so it is best to apply it several times with breaks in between.
DAY 2

ASSEMBLY
ASSEMBLY 01

Draw a guide line on parts A and D to provide orientation when attaching and weaving the furniture strap. It must be 20 mm from the upper edge and run parallel to it.

ASSEMBLY 02

Now you can screw together the wood elements A1 and A2 and the connecting pieces a1 and a2. Drill the holes for this beforehand. Then fix the pieces to the worktop at right angles and drill 2 mm deep entry holes from the outside with the countersink for the screws so that they fit flush into the wood.
Tip:
Before you start to cover the chair, you should study the next steps to get a feel for the workflow.

Next comes the seat.
Attaching the cut straps requires utmost concentration, as the many layers may not lie over one another. There are two levels to which they are attached: above and below the guide line explained in Step 01.
Cut 12 strap pieces of 600 mm each and lay down the pieces on the outer lower edge to check if the length is correct. It is best to fix the frame to be covered to a table with screw clamps. Now attach the first strips of the seat to the outer side of A1 above the guide line with four screws, but maintain a distance of 20 mm to the front edge of the wood (see diagram). Tighten the strap with pliers over A2 and fix it there with four screws above the guide line, too. Ideally you should do this together with a second person: one pulls the strap tight, the other screws the four screws into A2.

If you are assembling the chair alone, additionally fix the strap to the wood with a staple gun and staples before applying the screws.

Next, attach a strip diagonally, as shown in the diagram. Screw the end above the guide line to the outer side of A1 with four screws. Then pull the strap diagonally across the first strip with the pliers and fix it to the outer side of A2 below the guide line, again with four screws.
The lengths of the strap should always end up flush to each other and neither form gaps nor overlap.

Warning:
When screwing with the drill, too high a turning speed can cause the strap to twist.

Note:
If you are using a staple gun, three staples per side and strap can be applied between the screws.
For the next three cut straps, repeat Step 04 and make sure that you attach them in the area above the guide line on both sides.

Before you attach the last diagonal cut strap (number 7), fix a horizontal strap (number 6). It must be attached in the area above the guide line on both sides. Then attach the diagonal strap running over it to the outer side of A1 in the lower area and the outer side of A2 in the upper area.
The next layer of diagonals runs in the other direction. All cut straps are attached below the guide line to A1 and A2. To achieve the characteristic pattern, place the strap between the horizontal and opposing diagonal cut strap, as shown in the diagram, and attach it below the guide line.

Repeat the process for the next four cut straps, and you’ll have completed the cover of your seat area. You can now cut off the protruding strap at the height of the lower edge of the wood and carefully burn off the ends with the lighter so that they do not fray.
Now the holes for the leg pieces B and D are prepared. To do so, drill from within with a 5 mm drill straight through the pre-drilled holes and the strap. Does the countersunk screw already fit in the hole? If not, carefully drill again. If the strap frays a lot when drilling, burn it off with the lighter.

Tips:
- If you tighten the screws from the inside, they are easier to turn from the outside.

ASSEMBLY 10

Parts B, D and A can now need be connected to each other. First, connect D1 and A1, as shown in the diagram. Use the countersunk screws of different lengths listed below for this. For the four outer holes, use the long countersunk screws (4 × 50 mm) and connect them with the hexagonal nuts, as shown in the diagram. For the center hole of the seat bench, use the short countersunk screw (4 × 30 mm) and connect it with a sleeve nut.

Now repeat the whole process for the other side (D2 and A2).

Next, attach the right-angle mould d2 to D1 and D2 with three screws on each side. Drill the holes marked on D1 and D2 beforehand.

Before attaching B1 to D1, screw the short countersunk screws (4 × 30 mm) through the lower holes of the front and back leg and connect them with a hexagonal nut. Then use the sleeve nut to fix B1 to D1. Now repeat the whole process for the other side (B2 and D2).

Tips:
- If you tighten the screws from the inside, they are easier to turn from the outside.
Mount the solid wood piece d1 between D1 and D2 with three screws each. It should be oriented the same way as the backrest. Drill the holes marked on D1 and D2 beforehand.

Next comes the covering of the backrest. Here, too, cut another 12 strap pieces, each 600 mm. Use the guide line on the outer side for orientation again, running parallel to the edge of the wood at a depth of 20 mm.
Start at the top with a 600 mm horizontal strap and apply it so that it is 10 mm from the upper rounded wood edge (see detail diagram). Then lay it on the opposite outer side to check that the strap length is correct. If not, correct it.
Now fix the strap to the outer side of D1 with four screws, above the guide line. Pull it tight across D2 with pliers and fix it above the guide line on D2 with four screws. A second person can be helpful for covering the backrest, too: one pulls the strap tight, the other attaches the screws.
Affix a strap diagonally, as shown in the diagram. The screws are attached above the guide line on both sides. Continue the process until five strips have been attached: number 1 horizontally and numbers 2–5 diagonally.

Strip number 6 runs horizontally again, strip 7 is then laid across it diagonally, as shown in the diagram. The subsequent layer of opposite-running diagonal strips is attached below the guide line. Place the first one (number 8) between strips 6 and 7 and attach it on both sides as described. Repeat the process with more cut straps another four times.

Here, too, shorten any protruding strap and burn off the ends.
Now the holes for the leg pieces C1 and C2 are prepared. First, drill with a 5 mm drill through the strap at the marked points. If the strap frays, burn it off with the lighter. It is best to check if the opening is already big enough for the countersunk screws. If not, carefully drill again.

Make sure you have prepared all externally visible drill holes with a countersink so that the screw heads sit flush with the wood and do not protrude. C1 and C2 are now attached to the backrest with the screws and sleeve nuts, as shown in the diagram.
Finally, the back legs can be screwed to the backrest from the inside twice on each side. Note the measurements in the diagram. Stay in line with the screws that have already been attached. To do this, first pre-drill with the 3 mm drill (approx. 22 mm deep), then work with the countersink, then screw in all four brass screws. It is best to make the final turns by hand with a screwdriver.

You’ve done it!

Time to add the finishing touch to your work by removing the adhesive film from the sticker included and affixing it to the chair (see diagram).

That’s all! Enjoy.