## $\bar{\Longrightarrow}$ HEENER

## Operating Instructions Table Workshop MK 4



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## Maintenance and Operating Instructions for HEGNER Precision Table Workshop MK 4

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Technical Details
\(\left.$$
\begin{array}{ll}\text { Dimensions of circular saw: } & \begin{array}{l}\text { diameter } 150 \mathrm{~mm}(6 ") \\
\text { centre bore } 20 \mathrm{~mm}\end{array} \\
\text { Router: } & \begin{array}{l}6,35 \mathrm{~mm}(1 / 4 \mathrm{\prime} \mathrm{\prime}),(8 \mathrm{~mm} \text { optional } \\
\text { accessories), } \\
\text { maximum routing diameter } 30 \mathrm{~mm}, \\
36 \mathrm{~mm} \text { using disc milling cutters }\end{array}
$$ <br>

Sanding plate: \& diameter 125 \mathrm{~mm}\end{array}\right\}\)| diameter 125 mm |
| :--- |
| Sanding discs: |
| Exit $60,80,150,200$ |

1. $\quad$ Safety I (nstructions

Attention ! The following general safety instructions must be observed when operating electric tools:
1.1 The work area must be kept clean and tidy. Lack of tidiness can lead to accidents.
1.2 Do not use the machine in damp, wet locations or in the vicinity of inflammable liquids or gases. Ensure that the work area is well lit.
1.3 Keep children away from the machine.
1.4 Do not put too great a load on your machine - you will have maximum safety and will receive better performance within the range of capacity indicated.
1.5 Always use the correct tool. Do not use too light a tool for heavy work. Do not use tools for work which they were not intended.
1.6 Wear suitable working clothes. Do not wear loose-fitting clothing or jewellery. Loose-fitting garments can get caught in moving parts. It is recommended that non-slip footwear be worn when working out of doors. Wear a hairnet if you have long hair.
1.7 Use some form of eye protection (safety goggles). Use a respirator for work which creates a lot of dust.
1.8 Do not use the cable for other purposes. Do not use the cable to pull the plug out of the electric socket. Protect cable from heat, oil and sharp edges.
1.9 Remove the power plug whenever the machine is not in use before servicing and replacing parts, e.g. saw blades, router cutters etc.
1.10 Do not leave tools inside the machine. Before switching on, check that all tools and adjusting keys have been removed.
1.11 When working out of doors use only those extension cables authorized and designated for this purpose.
1.12 Check your machine for damage. Before using the machine check that guards are properly fitted.
1.13 For your own safety use the machine only for those purposes indicated in the operating manual. Use only those attachments which are recommended by the manufacturer. Use of any tools or attachments other than those recommended in the operating manual or in the catalogue may increase the risk of accident or injury.
1.14 Never touch moving parts and fittings unless the apparatus is switched off and disconnected at the mains.
2.

Assembly of the Machine

2.1 Place the table workshop on a solid work bench or table. Screw in the four rubber feet (1) and adjust the feet to ensure the machine is free from rocking.
2.2 Attach the sanding table (2) to the left side using the two star knobs and attach the guard for the rotary sanding attachment (3) over the sanding disc.
2.3 Screw the router guard assembly onto the top of the circular saw rip fence, with the two socket head screws using the allen key provided.
3.

## Electric Lead


3.1 The machine is equipped with a 3 metre 3 core cable, this must be fitted with a standard 3 pin plug and a 10 amp fuse in the plug. The brown wire to the live connection, the blue wire to the neutral connection, with the yellow/green wire to earth. Should there be any doubt concerning the correct fitting, consult a qualified electrician. Incorrect fitting could cause serious injury or even death by electrocution.
3.2 First switch on the NO VOLT cut-out switch item "1" (coloured white) into the "ON" position. The red indicator item "2" will show that the machine is now electrically powered. To the left of this switch there is a three position switch item "3" (coloured black). The central position is "OFF" (3.3). Turn it to the right position 3.2 - and the saw, the drill chuck and sanding disc will operate. It is essential to ensure that the items not in use are properly guarded.

If you turn the switch (3.1) to the left this will operate the table router.

It is important to ensure maximum safety at all times. Therefore, before using the router lower the circular saw below the cutting table and lock it in position. Also secure the saw blade guard over the cutting table and additionally make sure the guards are in position for the sanding disc and the drill chuck. Viceversa, when using the saw or other attachments be sure that the router cutter is below the cutting table. These measures will ensure maximum safety, should you accidentally turn the switch in the wrong direction.

Finally, be sure to switch off the NO VOLT cut-out switch when the machine is not in use.

## 4. Circular Saw

In order to prevent accidents always remove the plug from mains supply before changing blades \& cutters or making adjustments!

### 4.1 Changing the saw blade

4.1.1 Loosen thumb screw on the guard and remove the guard from the riving knife.
4.1.2 Remove the countersink head screws from the table insert plate, loosen the hexagon nut using the spanner. Remove the disc and saw blade - and install the alternative blade. The saw blade should be kept fixed in position and this can be effected quite easily by jamming a piece of scrap wood against the teeth of the blade.
4.2 Adjustment of the riving knife

Loosen the screws (A) of the riving knife and keep a distance of 2 to 3 mm between the riving knife and the saw blade. Then tighten the screws.

The riving knife must be raised sufficiently so that the wood can be moved smoothly. The riving knife prevents the cut from closing and jamming on the saw blade preventing a possible return kick of the workpiece.
4.3 Release knurled nut " B " and set the cutting height as required by turning the knurled nut "C". Turn knurled nut "C" anti clockwise and the saw blade can be lowered even below the cutting table. Turn it clockwise to raise it.

After adjusting the cutting height lock the blade in position with knurled nut "B".

To the right of the machine and in front of the adjustment nuts is a small indicator which shows the height of the saw blade, and this can be reset to obtain exactly the same height if required in the future, just by making a note of the indicator position. E.g. this can be very useful if slot cutting and wanting to repeat the same slot height later.

### 4.4 Rip Fence

Secure the rip fence in the groove and secure it by means of the adjustable clamping lever. The rip fence must be parallel to the saw blade.

Test this by running a coin between the blade and the fence and slide it along the table, the coin should slide freely from the front to the back of the saw blade without any excessive difference in the clearance between the back and the front of the blade. The rip fence can be adjusted by means of the two screws (F) . The fence can be mounted right or left of the saw blade.

see 4.2
see 4.3


Attention: If you experience difficulties in cutting examine the saw blade and check whether this requires sharpening, and also check the belt to see whether there is sufficient tension on the belt. If necessary, please adjust with the belt tensioning roller (see photograph).

To 4.4 An additional "L" shaped rip fence can be screwed to the main rip fence which enables thin pieces of material to be cut with precision and maximum safety as the saw blade can be raised to a very small height and covered with the guard.

### 4.5 Mitre Fence

The mitre fence can be mounted right or left of the saw blade. It permits cuts between $0^{\circ}$ and $45^{\circ}$ in either direction.
4.6 Two speeds are available

1. 5600 r.p.m. for wood and plastics
2. 1400 r.p.m. for non-ferrous metal and ferrous metal

The machine has been set to the first speed $=5600$ r.p.m. by the manufacturer. The second speed $=1400$ r.p.m. is obtained by changing the special flat belt to the pulley. Changing alternative the belt is made easy by setting the cutting height to zero. In order to change the belt it is first necessary to remove the drill chuck guard.
5. Router
5.1

The router has a collet dia. $6,35 \mathrm{~mm}$ (1/4") ( 8 mm is an optional accessory) and is operated by a 27.000 r.p.m. motor. Cylindrical cutters with maximum dia. 30 mm and disc-type grooving cutters with max. dia. 36 mm can be used.
5.2 Clamping of the cutter into the collet

to 5.2 In order to clamp cutters into the collet, release lock nut (A). Turn handwheel (B) until stop (C) is at the top. Introduce a suitable spanner into opening (D) and hold neck of the spindle. Now tighten lock nut using another spanner.

For removing the cutters, release collet first by turning lock nut - once again as previously using the two spanners and then remove the cutter after a few turns to free the cutter.

When fitting a replacement cutter, the cutter must be fully inserted into the top of the collet. In the event of difficulty remove both components from the machine. Then push the cutter fully into the collet.
5.3 Never tighten the lock nut without a cutter inserted in the collet. This could compress the collet excessively and damage it.
5.4 The guard must be adjusted to ensure complete cover in front of the cutter with just sufficient clearance for the wood to pass through.
5.5 Adjustment of cutting depth


Release clamping lever (A). Turn handwheel (B) until cutting depth required is obtained. Then tighten lock screw (A) again. A scale at the side of the machine is used for height adjustment and by noting the scale position the cutter height can be reset exactly, if required to repeat the cut later.

Make sure that the fence is set as closely as possible against router cutter and that the cutter guard is set down as closely as possible in direction of work surface.

Always feed the workpiece against direction of the rotating cutter.


CUTTING DIRECTION - CORRECT

6.

## Rotary Sanding Attachment

6.1

Changing of the sanding discs


Release the two star handles of the sanding table support. Remove Velcro sanding disc. Apply new sanding disc. Fasten sanding table support and guard again.

4 types of sanding discs are available:
grit 60 for sanding coarse workpieces
grit 80 for sanding medium coarse workpieces
grit 150 for sanding smooth workpieces
grit 220 for sanding very smooth workpieces
Make sure that the workpiece is introduced from the front. Otherwise the workpiece will deflect upwards.

Adjust the guard so that the workpiece can be pushed freely.
6.2 Cleaning of the sanding discs

If a sanding disc smears while sanding wood or paint it can be cleaned with the help of an eraser or a piece of P.V.C. drain pipe.

In order to obtain the best adhesiveness possible clean the Velcro disc with a brush after use.

Only use sanding discs dia. $125 \mathrm{~mm}\left(5^{\prime \prime}\right)$.

## Drill Chuck

The drill chuck is on the right of the machine. It has a range from 1 to 10 mm ( $3 / 8^{\prime \prime}$ app). A drill chuck key is supplied with the machine.

Be sure to remove the drill chuck key before switching on the machine.

## Dust Extraction

The machine is equipped with a connection for an extraction system. Usual commercial extractors by Metabo, AEG, ELU etc. can be connected.

Maintenance
The machine has no lubricating points and is completely maintenance-free.

Stromlaufplan für Bearbeitungscenter MK 4
Circuit Diagram for Prečision Table Workshop MK 4



ACCURA MK4 Parts List

| Part \# | Qty. | Description | Part \# | Qty. | Description |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | Unit base | 55 | 1 | Router motor |
| 2 | 1 | Housing | 56 | 1 | Cutter nut |
| 3 | 1 | Worktable | 57 | 2 | Cable guide |
| 4 | 1 | Router flange | 58 | 1 | Height adjustment wheel |
| 5 | 1 | Circular saw housing | 59 | 3 | Wing nut |
| 6 | 1 | Chuck bearing housing | 60 | 1 | Exhaust hose-33x240 mm |
| 7 | 1 | Sander table | 61 | 1 | Cable tie |
| 8 | 1 | Circular saw arbor | 62 | 1 | Sawblade height adjustment knob |
| 9 | 1 | Pulley S | 63 | 1 | Locking knob |
| 10 | 1 | Pulley M | 64 | 1 | Washer-18 mm |
| 11 | 1 | Sanding disc shaft | 65 | 1 | Flat belt-10×420 |
| 12 | 1 | Stabilizer | 66 | 1 | Boring chuck (3/8") |
| 13 | 1 | Sawblade mounting flange | 67 | 1 | Velcro cover |
| 14 | 1 | Spacer | 68 | 2 | Hex nut-10 mm |
| 15 | 1 | Cog wheel | 69 | 1 | Hex nut- 6 mm |
| 16 | 1 | Saw blade safety cover | 70 | 2 | Hex nut- 5 mm |
| 17 | 1 | Low profile rip fence attachment | 71 | 1 | Hex nut-10 mm |
| 18 | 1 | Sawdust collection housing | 72 | 3 | Hex nut-8 mm |
| 19 | 1 | Miter gauge | 73 | 1 | Hex nut-16 mm |
| 20 | 1 | Sawblade splitter | 74 | 2 | Hex head screw-6 mm |
| 21 | 1 | Sander table bracket | 75 | 5 | Washer- 6 mm |
| 22 | 1 | Exhaust port | 76 | 8 | Allen screw- 6 mm |
| 23 | 1 | Rip fence | 77 | 4 | Screw- 5 mm |
| 24 | 1 | Rip fence guidebar | 78 | 2 | Allen screw- 6 mm |
| 25 | 1 | Rip fence mounting bracket | 79 | 2 | Allen screw- 8 mm |
| 26 | 1 | Router column | 80 | 2 | Threaded pin-5 mm |
| 27 | 1 | Router guard holder \#1 | 81 | 1 | Allen screw- 8 mm |
| 28 | 1 | Router guard holder \#2 | 82 | 1 | Key |
| 29 | 1 | Router guard pin \#1 | 83 | 1 | Circular sawblade |
| 30 | 1 | Router guard pin \#2 | 84 | 3 | Allen screw- 5 mm |
| 31 | 1 | Clear safety shield | 85 | 1 | Allen screw- 5 mm |
| 32 | 1 | Boring chuck cover | 86 | 6 | Allen screw- 6 mm |
| 33 | 1 | Parallel plate | 87 | 2 | Allen screw- 4 mm |
| 34 | 1 | Parallel lever | 88 | 1 | Machine screw-4 mm |
| 35 | 1 | Sander guard | 89 | 4 | Flat head screw- 4 mm |
| 36 | 1 | Threaded rod-10 mm | 90 | 2 | Hex nut-5 mm |
| 37 | 1 | Depth gauge | 91 | 2 | Cord retainer |
| 38 | 1 | Control panel cover plate | 92 | 1 | Quick-lock lever assembly |
| 39 | 1 | Miter fence guidebar | 93 | 1 | Motor selector switch |
| 40 | 1 | Sander guard spacer | 94 | 1 | Magnetic safety switch |
| 41 | 1 | Sanding plate | 95 | 1 | Warning light |
| 42 | 1 | Rip fence scale indicator | 96 | 1 | Cord retainer |
| 43 | 1 | Table insert | 97 | 4 | Machine screw- 4 mm |
| 44 | 1 | Rip fence pressure plate | 98 | 1 | Power cord |
| 45 | 1 | Sanding table tilting support plate | 99 | 2 | Knurled knob- $5 \times 10 \mathrm{~mm}$ |
| 46 | 1 | Threaded rod-6x54 mm | 100 | 1 | Knurled knob- $5 \times 16 \mathrm{~mm}$ |
| 47 | 1 | Threaded rod-8x85 mm | 101 | 1 | Knurled knob- $5 \times 20 \mathrm{~mm}$ |
| 48 | 1 | Table saw rip fence scale | 102 | 4 | Nut |
| 49 | 1 | Router scale | 103 | 5 | Allen screw- 6 mm |
| 50 | 1 | Table saw height scale | 104 | 2 | Knurled knob- $5 \times 16 \mathrm{~mm}$ |
| 51 | 1 | Router exhaust port | 105 | 1 | Quick-lock lever assembly |
| 52 | 1 | Saw belt tensioner | 106 | 1 | Cylindrical pin-6 mm |
| 53 | 1 | Tensioner mounting plate | 107 | 4 | Machine screw- 5 mm |
| 54 | 1 | Main motor |  |  |  |

