SAFETY INSTRUCTIONS AND OPERATORS MANUAL FOR BEVELLING MACHINE

LKF. 200

EUROBOOR

The bevelling machine type LKF. 200 is designed for milling steel edges prior to welding. It is reliable and simple to use. The LKF. 200 machine can be used for bevelling straight and curved steel sheets and pipes. It allows you to bevel steel edges between 15 and 60 degrees. maximal width of cut is 18 mm. When equipped with special attachment it can also work on pipes above 150 mm diameter.

Before you start work with the machine, please read these instructions carefully. Take special note of safety recommendations.

TECHNICAL DATA

Power supply: 220÷240 V AC 50÷60 Hz (110÷120 V AC 50÷60 Hz)

Motor: electric, single phase, induction, with work capacitor.

Power: 1,1 kW

Speed: 2820 min^{-1}

Maximal instantaneous overload: 12 A (18 A)

Cut of point: 14 A (22 A)

Electric safeguard: neutral earthing

Tool: double milling head with multi-blade inserts

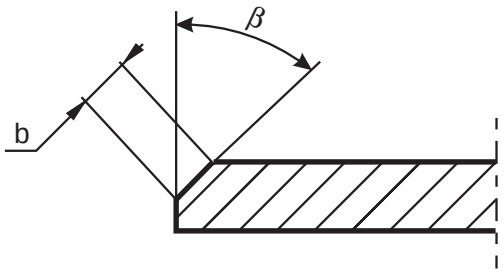
Cutting speed: around 550 m/min

Max. width of cut: b=18mm for 45° angle (see drawing 1)

Range of angles: $15° < \beta < 60°$ (drawing 1)

Total weight: around 19,5 kg

Fuse: 2 A



Drawing 1

WARRANTY CARD No .....

EUROBOOR in the name of Manufacturer warrants the Bevel Machine to be free of defects in material and workmanship under normal use for a period of six months from date of purchase but not longer then 12 months from date of manufacture.

This warranty does not cover cutting inserts, damage or wear which arises from misuse, accident, tampering or any other causes not related to defects in workmanship or material.

Date of Production ..... Serial No .....

Quality Control .....

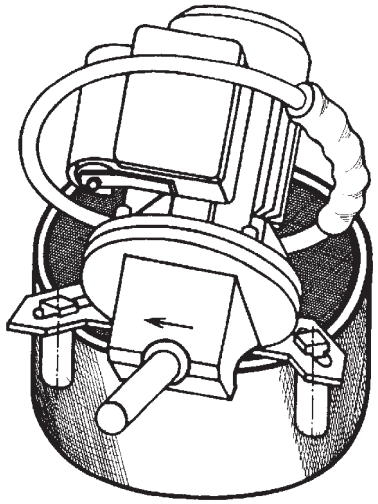
Date of Purchase .....

Signature of Seller .....

BEVELLING PIPES

Special optional roller attachment (309÷315) allows you to bevel pipes and curves.

1. To prepare the machine for work on pipes take the 307 slide off the machine and replace it with the pipe attachment (309÷315).
2. Move the housing (205) to its "zero width of cut" position ie. when beveling angle is null.
3. Place machine on the edge of pipe, in such a way that the milling tool touches the workpiece (drawing 2). Then loosen bolts (309) and move rollers (311) symmetrically towards the pipe so that they rest on it. fasten both rollers. You can now adjust required bevelling angle.



Drawing 2

BEVELLING PIPES

Pay special attention to the following points:

- Power supply should be in accordance with all local regulations. Its capacity to earth electrical loads should be tested prior to work.
- Power supply cable should be protected from demage.
- Precise and tight fitting of the milling head and its inserts.
- Corect adjustment of the milling head to the workpiece and tighten bolts.

Always wear protective glasses!
Inspect the condition of milling inserts regularly and change them when worn!
Stop machine, if any abnormal signs occur!
Always unplug machine from power supply during any work on the tool, when adjusting angles or any other work on it.
All repairs should be carried out by authorised sevice only.

SETTING REQUIRED ANGLE AND WIDTH OF CUT

There are two adjustments mechanisms:

1. for adjusting the bevelling angle required,
2. for adjusting the machine to the thickness of steel which is being cut.

Before you start any adjustments make sure that the machine is unpluged from the mains.

To change bevelling angle loosen two M8 bolts (302) located on both sides of the milling head housing and interlocking vertical and horizontal slides. Then change position of two slides setting the required angle according the pitch marked on the side of the housing. After setting the right angle tighten all 302 bolts.

The width of cut can be set by turning bolt 202 which will after the position of the milling head. Do it by loosening two bolts 212 located on the side walls of the housing and turning the bolt 202. Then tighten 212 bolts. The pitch shown on the side of 205 housing gives only approximate parameters. Precise bevelling width should be adjusted empirically by appropriate adjustment of the housing 205.

HOW TO CHANGE INSERTS

Machine LKF. 200 is equipped with a double milling head, containing twelve cermetalic inserts. Recommended inserts are of the following type: ISO SEKN 1203 08 CERMET.

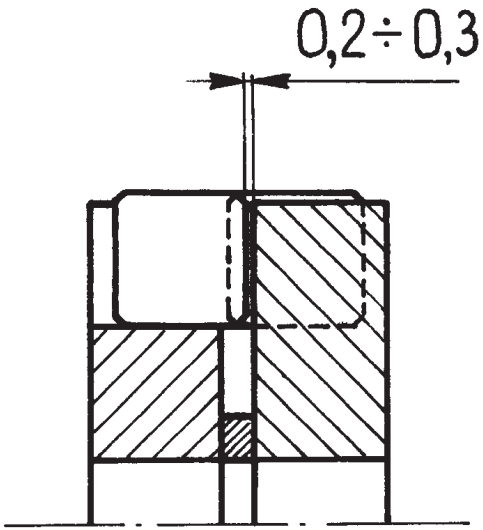
I case of average quality construction steel, life expectancy of those inserts is around 150 running meters per each side of inserts. before you replace tips for new ones make sure that all four sides of each insert were used. Take the housing 205 off the machine. To do it, undo bolts 212, using Allen wrench - size 3 (supplied as standard). It is normally not necessary to take both milling heads 403 off the spindle 401. Using Allen wrench s3 (605) undo screws 407 and remove inserts.

When changing tips make sure that all inserts newly placed in the milling head are installed square and that are pushed as far back (into the holder) as possible. Before pushing new inserts into the milling head always remove all swarf. drawing No 3 shows how inserts should overlap each other. Make sure

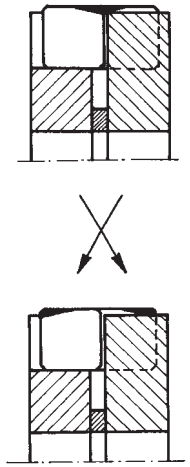
that the necessary gap of 0,2 mm is always made.

If both milling heads were removedand the replaced on the main shaft make sure that they are installed in the right direction and that tips of each milling head are shifted relatively to each other for smoother work.

If the width of cut is small then swap all inserts according to drawing No4, thus extending their life even longer.



Drawing 3



Drawing 4

LKF. 200 COMES IN A SET WHICH CONSISTS OF:

- metal box
- bevelling machine with a set of inserts
- curves and pipes attachment (part 309÷315) - option
- tool box (part 601)
- 2 Allen wrenches:
  - hex s3 (part 605)
  - hex s6 (part 602)
- milling head fastening tool (part 604)
- milling head interlock (part 606)
- milling head puller (part 607)
- instructions

START UP AND OPERATION

LKF. 200 comes in a ready-to-use state. The only operation that needs to be carried out is adjusting it to workpiece thickness and the bevelling angle. Precise instructions how to do it are given below in point 5.

Plug machine into mains. Both the plug and the socket must be earthed. Lift the machine and place it vertically on its horizontal slide, on the edge of your workpiece, which should be on your right hand side. Make sure that the tool does not touch the workpiece. You can now turn the machine on by pressing main switch (507) to position "I". To switch machine off press switch (507) to position "O". You can now start the motor pressing switch (510, button "I") what will be signalled with an amber light coming on (506). To stop the motor press switch (510) again (button "O").

Start sliding the machine slowly to the right, untill such a moment that the tool starts to cut steel but remember - the direction of feed is marked on the spindle housing (205). The feed rate depends on the thickness of steel which is being bevelled and on the composition of that steel. Most steels can be bevelled with just one pass.

If the operator attempts to mill too fast and too thick, the overload red indicator (504) will start flashing and if motor is loaded even harder power will be cut off. To start the machine again move the tool away from bevelled edge, than press button "O" switch (510), and after few seconds you can start the machine again by pressing button "I" (switch 510)

Operator is permitted to use the machine at the brink of the cut-off point with overload light coming on and off, but the temperature of the motor should not exceed 85°C. Higher temperature can permanently demage rotor. LKF. 200 is designed to work under full load for around 1 hour, after which it should cool down for about 15 minutes. The motor will not cool down running free, but it will get even warmer.

Bevelling Machine LKF. 200