

Engraved Hand Rolls

OPERATING INSTRUCTIONS

1. General

1.1 product name

- Engraved Hand Rolls

1.2 product designation

1.3 output date

25.02.2024

1.4 the serial number of the product

3241

1.5 name of manufacturer

- ООО "ABB-100"

2. Assignment

The engraved hand rolls are intended for roll embossing of the thin beeswax band which is used in production of the honeycomb bases.

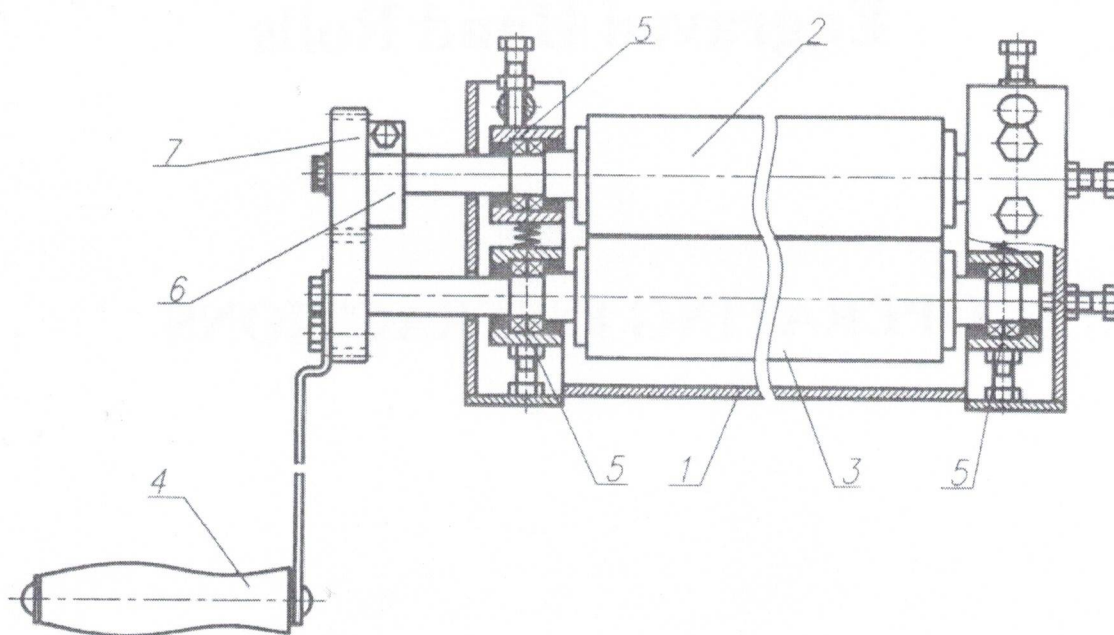


Fig. 1

1 - bedding; 2 - upper roll; 3 - lower roll; 4 - handle; 5 - bearing; 6 - carrier; 7 - gear.

3. General design

General design is shown in the Fig.1. In the bottom 1 there are supporting bearing bolts of 5 the lower engraved roll 3. The upper engraved roll 2 is movable against to the lower engraved one. The rolls are connected by the gears 7. The rolls are put in rotation by the use of a handle 4, which is installed on the lower engraved roll. You should supply the smooth beeswax and round the handle in the line of the index. For regulation of the upper engraved roll in the vertical and horizontal planes there are provided the lateral, end face and the pressing screws. The replacement of the oiling is made by complete overhaul of the engraved rolls. Before the work you should place the engraved rolls on the strong plane surface (a table) and fix them. The thickness of the supplying smooth beeswax band is 1.5...2.5 mm.

4. Setting up of the engraved rolls

The setting up of the engraved rolls consists of imparting to them such a mutual position, at which the projections of cells of one roll will be accurately between the recesses of the other.

The rolls having been correctly setup produce the beeswax honeycomb bases, in which all three rhombs of the cells are of the equal thickness. In order to determine the correctness of the rolls setting up the beeswax honeycomb base sheet has to be examined against light in such a position, in which it comes out of the rolls. At that position the inscriptions embossed at every turn of the rolls can be read normally, which is to be considered as an evidence of the correct orientation of the beeswax honeycomb base sheet.

In connection with the fact that the lower roll cannot be adjusted, the setting up of the rolls is carried out by displacing the upper roll, therefore, the causes of setting up troubles and the methods their elimination will be considered in conformity with the changing of rhombs thickness of the cell formed by the upper roll.

Below stated are the kinds of the rolls getting out of order and the methods of their elimination.

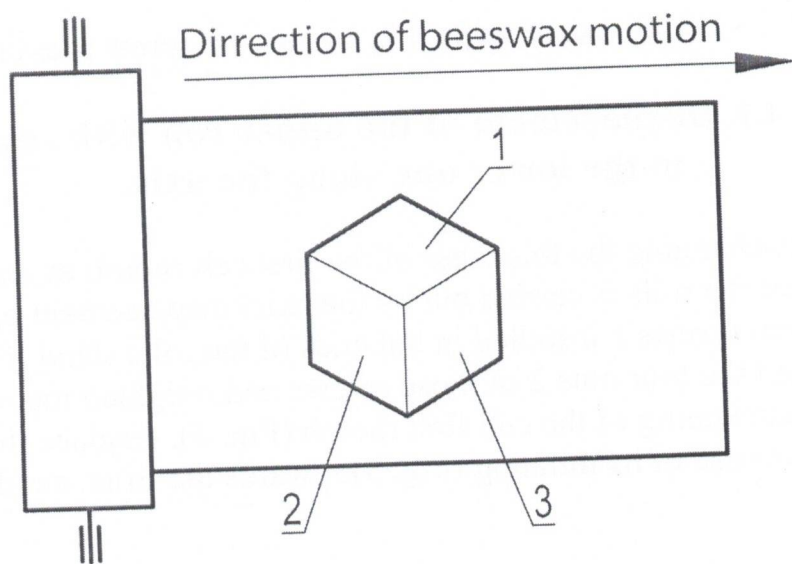


Fig. 2. Beeswax base sheet cell termed by the upper roll.

The rhombs are conditionally designated by the figures 1, 2, 3 (Fig. 2).

All parts, by means of which upper roll is adjusted relatively to the lower roll are shown in Fig. 3.

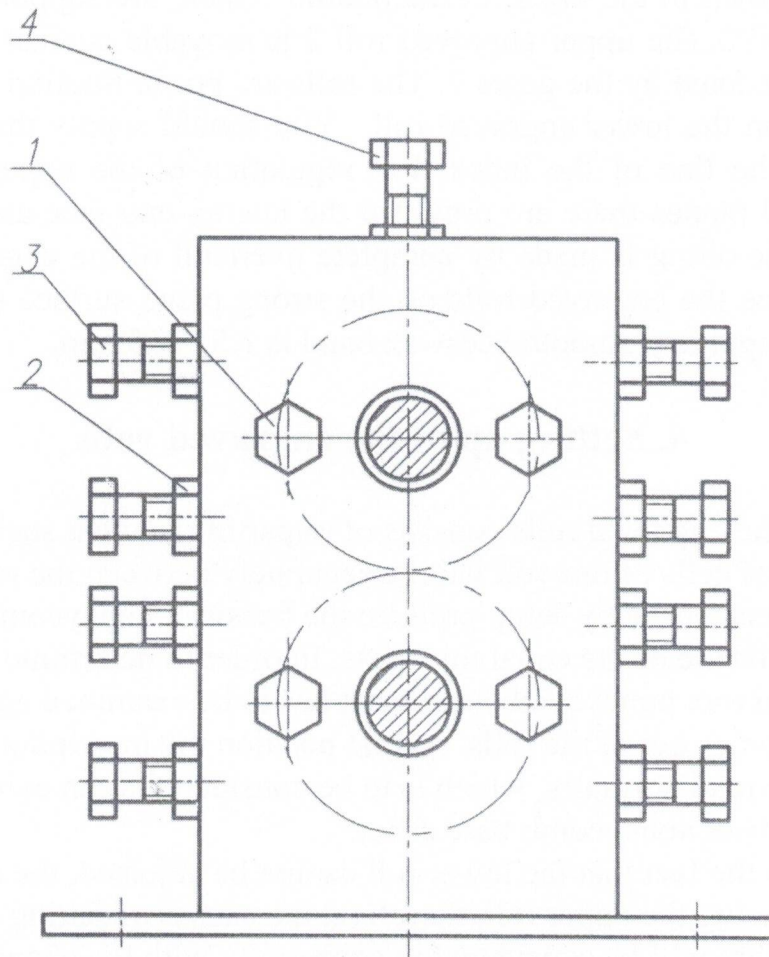


Fig. 3.

1 - screw longitudinal; 2 - nut; 3 - screw adjusting lateral; 4 – screw pressing.

4.1. Displacement of the upper roll with respect to the lower one along the axis.

That is the cause of changing the thickness of the first cell rhomb as compared with the rest of two. The setting up of the rolls is carried out by the axial displacement of the upper roll by means of the longitudinal screws 1 installed in but ends of the rolls stand (Fig. 32).

Preliminarily slacken the four nuts 2 of those screws and retighten them after finishing the adjustment. In case of thickening of the cell first rhomb (Fig. 4), displace the upper roll towards the rear stand, and in the case of its thinning (Fig. 5) towards the front stand.

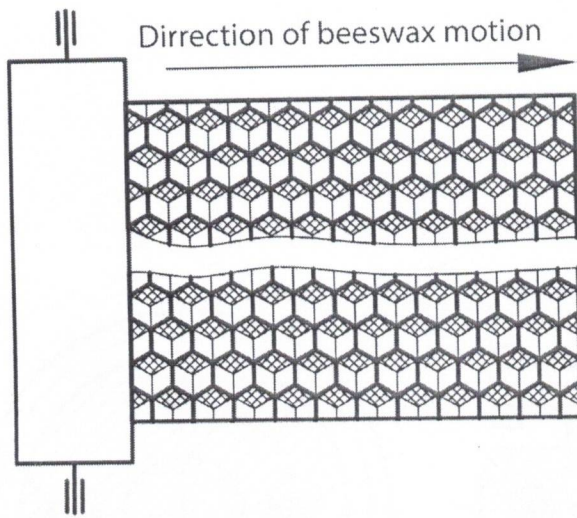


Fig.4

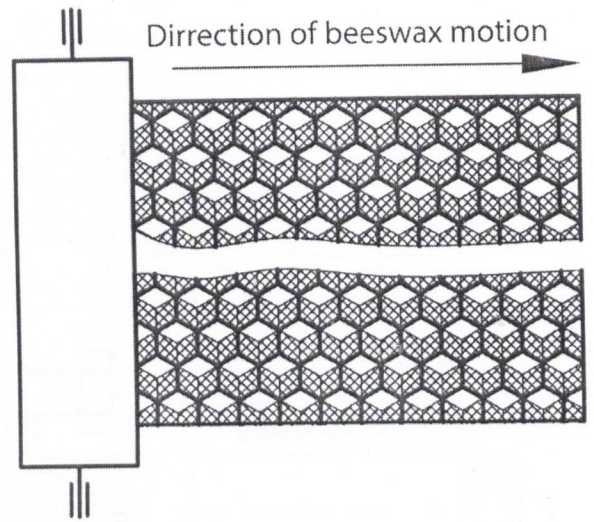


Fig.5

4.2. Turning the upper roll with respect to the lower one.

This cause the thickness of the second or third rhomb of the cell to be changed over the whole of the width of the sheet.

The rolls are set up by turning the upper roll around its axis by means of adjusting screws 6 installed in the carrier 4 (Fig. 8).

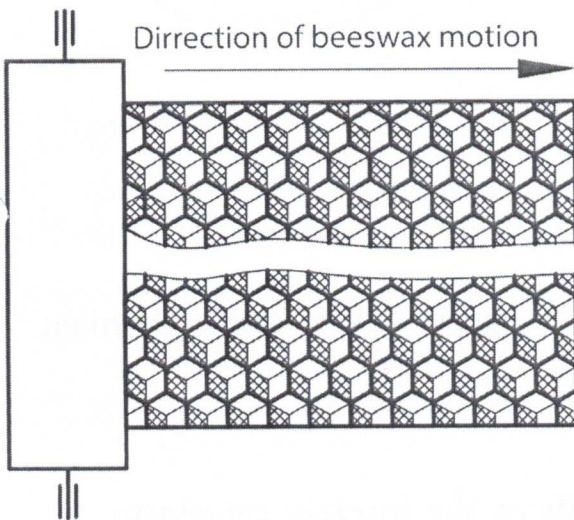


Fig.6

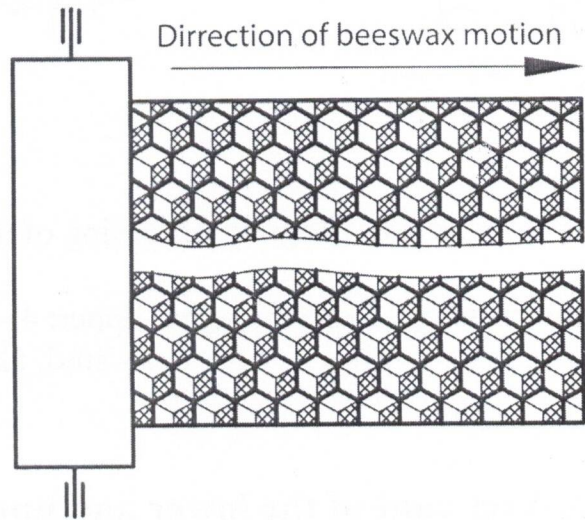


Fig.7

At the beginning, release the clamp bolts 1, and when the setting-up operation is finished, retighten them. In case of the cell second rhomb becoming thicker (Fig. 6), screw off the left hand adjusting bolt and screw up the right-hand bolt.

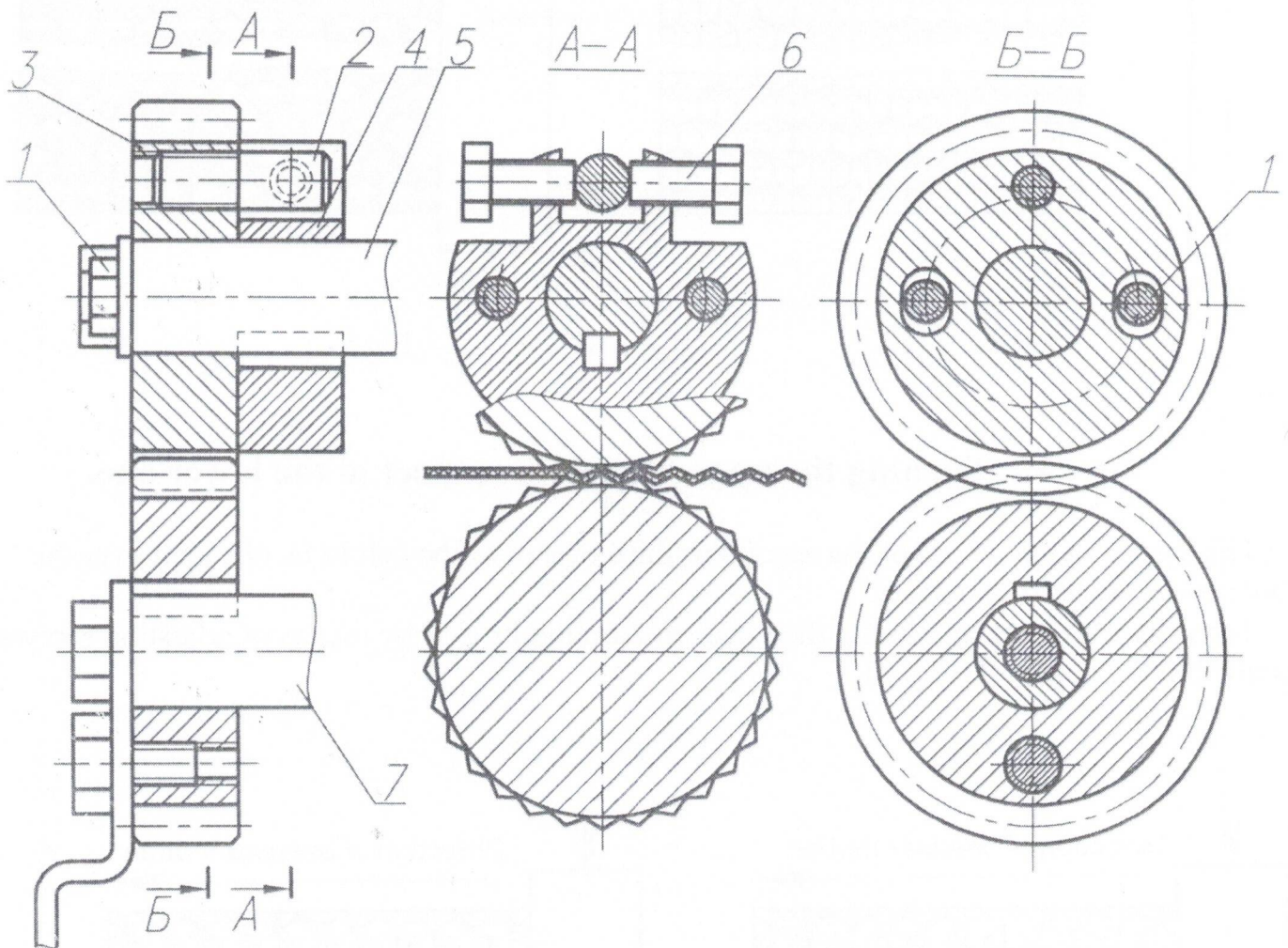


Fig. 8. Diagram of turning of the upper roll around its axis.

1 - screw pressing; 2 - pin; 3 - gear upper; 4 - carrier; 5 - upper roll; 6 - screw adjusting;
7 - stud, clamping;

4.3. Axes cant of the lower and upper rolls in the horizontal plane.

Axes cant causes harrowing of thickness of the second or third rhombs of the cell. The following versions of changing the cells rhombs thickness are possible.

4.3.1. In the front part of the beeswax honeycomb base sheet the cells are correct, but in the rear part, the second or third rhombs of the cell are thickened (Figs 9 and 10).

The setting up is carried out by displacement of rear end of the upper roll in the horizontal plane, by means of lateral adjusting screws 3 (Fig. 3).

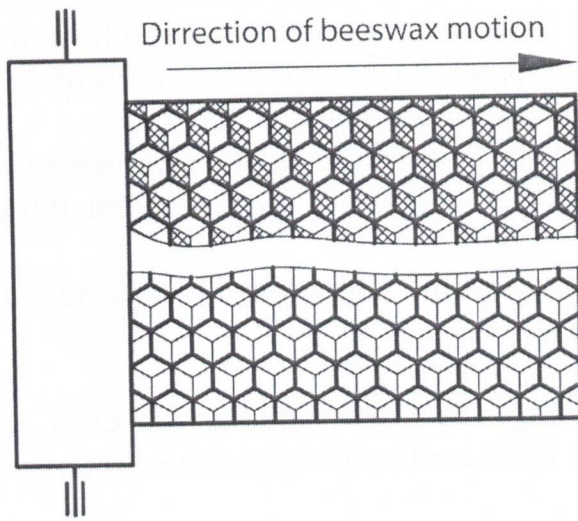


Fig. 9

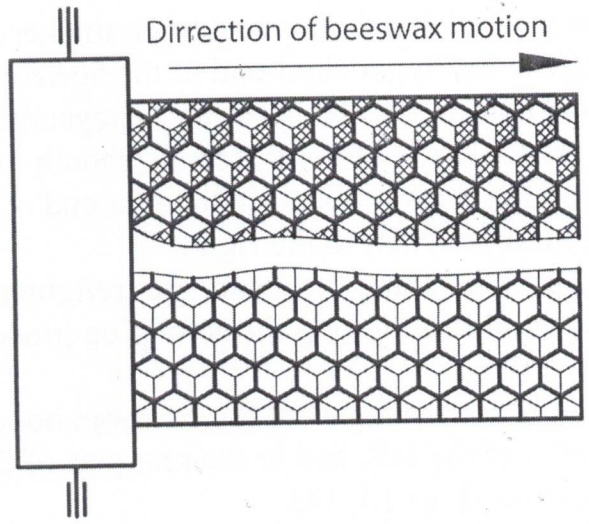


Fig.10

Preliminary, one has to release all the four nuts of those screws, and, after adjusting, to retighten them.

In the case of the cell second rhomb becoming thicker, displace the rear end of the roll to the left, and, in case of the cell third rhomb becoming thicker, to the right.

4.3.2. In the rear part of the beeswax honeycomb base sheet the cells are correct, and in the front part, the second or third rhombs of the sell are thicker (Figs 11 and 12)

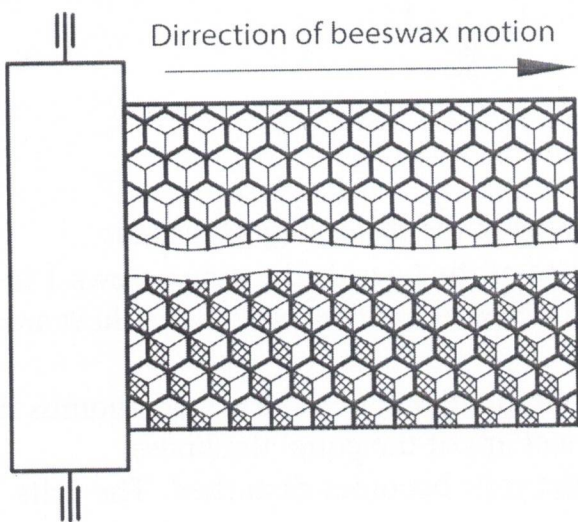


Fig.11

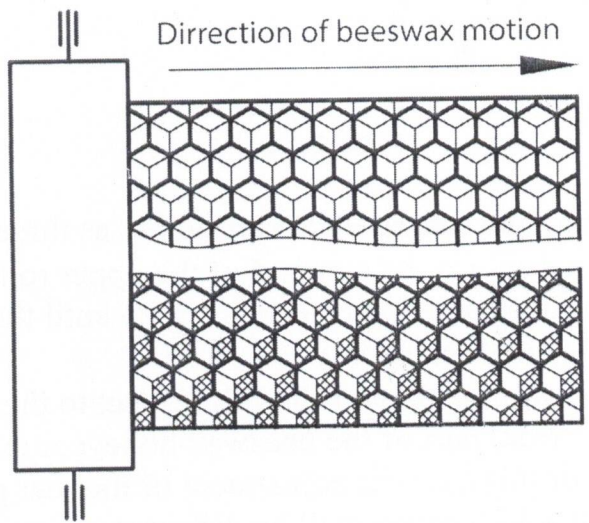


Fig.12

4.4. The adjustment of the beeswax honeycomb base sheet thickness is carried out by the pressing screws 4 (Fig 3).

4.5. General Rules for setting up the Rolls

4.5.1. In the cases when the setting up of the rolls is carried out as two or three operations, one cannot set up the rolls in one step, as this can cause removing of the cells.

4.5.2. In all the cases when performing adjustment of the rolls, the upper roll has to be raised having release the upper pressing screws for this case.

4.5.3. In order to avoid the surface of the rolls being crushed, it is recommended to carry out adjustment of the rolls in two steps-using thickened and normal beeswax honeycomb base sheets.

4.5.4. At the project of gear wheel of one roll and on the cavity of the gear wheel of the second roll there are marks that must always coincide.

5. Delivery

5.1 Engraved Rolls

-1 pcs.

5.2 Certificate

-1 pcs.

6. Acceptance

Engraved Hand Rolls the technical specifications ТУ У 29.3-35617181-002-2008 and as fit for use. Subject to preservation and packaging

Output date

25.02.2018



7. Warranty

The company guarantees the serviceability Engraved Hand Rolls for 12 months. Home warranty period begins from the day of sale. Responsible for problems caused by the buyer, the organization of the manufacturer is not responsible

Address of the manufacturer:

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