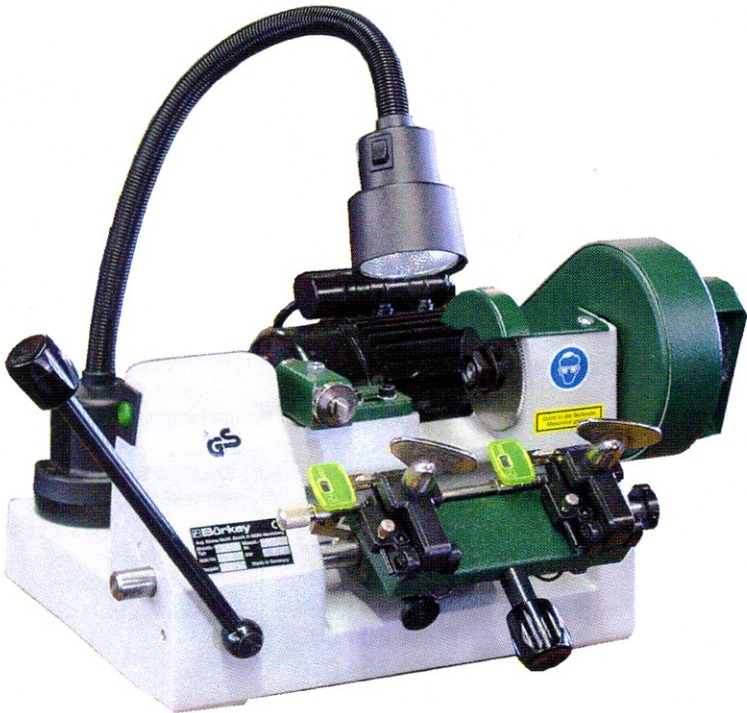


Börkey 954 REXA III

Börkey 954 REXA III DSB

INSTRUCTIONS FOR USE



Semi automatic key cutting machine

Börkey 954 REXA III

Börkey 954 REXA III DSB

for cutting cylinder-, car- and cross keys up to 100 mm length

Main characteristics

- copying every cutting angle without changing the cutter
- high precision, easy lever-operation, solid construction
- maintenance-low cutting spindle fitted in a sliding -bearing
- well visibility and freedom of motion in the clamping -area
- precise gripping-vices
- precise gripping-vices with anti-twisting device
- security- device against automatic running of the machine after cut of power - supply

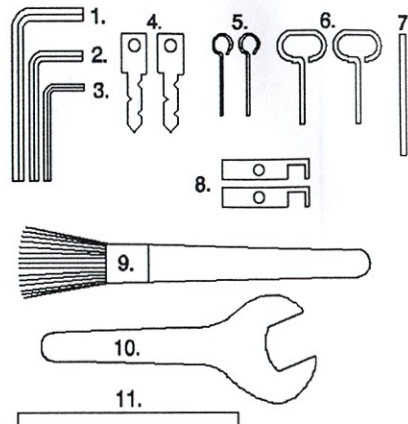
Technical data

Input:	120 w (with work- light 140 w)
Voltage:	230 v
Frequency:	50 cycles
Weight:	30 kgs.
Dimensions:	60x30x30 cms.
Sound level:	77 dB(A)
Protection fuse:	6A

Standard tool equipment

order no.

1. 1 allen key SW 5	9000 022 005
2. 1 allen key SW 3	9000 022 003
3. 1 allen key SW 2	9000 022 001
4. 2 check-up keys	9954 204 008
5. 2 pins 1.2 mm	9954 204 009
6. 2 pins 1.8 mm	9954 204 010
7. 1 steel bar 3x70 mm	9000 020 002
8. 2 flat bars with cut-out section	9954 204 014
9. 1 brush	9000 021 001
10. 1 O.E. spanner SW 24	9000 023 003
11. 1 steel bar 6x150 mm	9000 108 001
1 tool-kit-box	9000 190 002



Notes to the instructions of use

Read the instructions for use very carefully and pay attention to their notes. The instructions of use section contains important information on how to operate the key machine safely and accurately. In addition to the operating instructions the respective national rules + regulations for accident prevention and environmental protection must also be observed.

The instructions must always be at hand at the place of use of the machine!

Duly use of the machine

Only use the key machine for cutting cylinder-, car- and cross keys. Using the machine for purpose other than those mentioned above is considered contrary to its designated use. The manufacturer cannot be liable for any damage or injury resulting from misuse. The risk is entirely with the user. Operating the machine within the limits of its designated use also involves observing the instructions set out in the operating manual and complying with the maintenance directives.

Fundamental safety instructions

Any work on or with the machine must be executed by competent personnel. Statutory minimum age limits must be observed! Mount the machine to a dry rigid surface offering the correct working height for the operator. The machine must not be used outdoors or in areas with the danger of explosive or inflammable material.

Before using the machine check that it complies (see sticker on machine) with the mains voltage. Mains connection must only take place through a fixed, approved and protected socket. Operate the machine only when all protective and safety-oriented devices are in place and fully functional. Always stop the machine motor after use or leaving the machine. Always disconnect machine from mains supply when repairing or doing routine maintenance. Repairing of the machine must only be performed by trained and instructed staff (only use genuine replacement parts). Work on electrical equipment on the machine must only be performed by a skilled electrician.

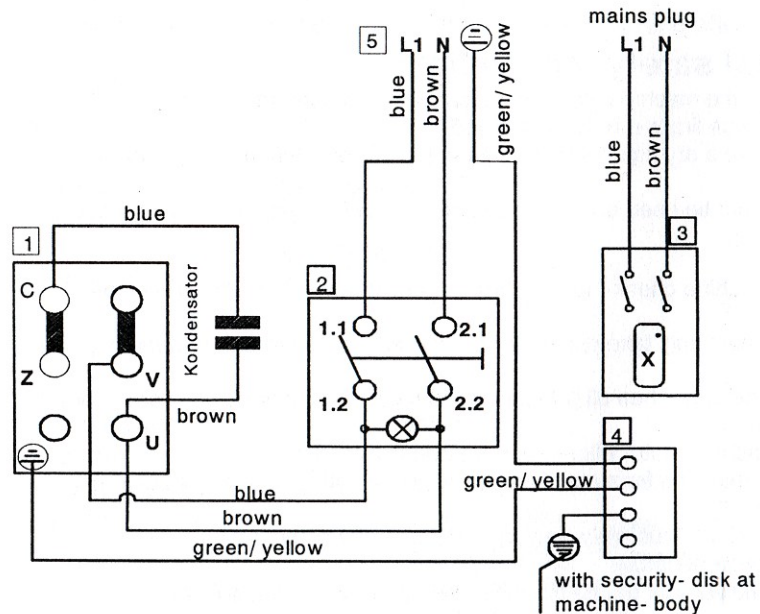
Connecting cables

- check regularly for obvious damage, defects or ageing
- keep away from squeezing- and shearing places
- never use machine with defective cables

Special warning

- never try to hold cutter unless machine is disconnected at mains
- never grip- or remove keys with cutter still running
- always wear safety goggles
- make sure long hair is tied back or otherwise secured, never wear neck ties or loose fitting clothes
- if trouble occurs switch off and unplug the machine immediately or disconnect fuse

Wiring diagramm with work- light



- | | |
|---|--------------|
| 1 = motor RB 0.18/4-7 | 9000-026-052 |
| 2 = push button switch with light | 9000-039-048 |
| 3 = work light 12V/ 20W | 9000-027-023 |
| 4 = binding post 4 x 1 mm 2 | 9000-171-012 |
| 5= security device against automatic running of machine after cut of power supply | 9000-193-001 |

Maintenance

Clean machine regularly with brush to avoid swarf accumulating.

- Do not use compressed air to clean machine ! -

If after long service pressure of main carriage spring becomes weak it is adjustable. Insert metal bar in sleeve under the main carriage, loosen socket screw in sleeve and using metal bar to rotate sleeve upward, tighten socket screw and check operating tension.

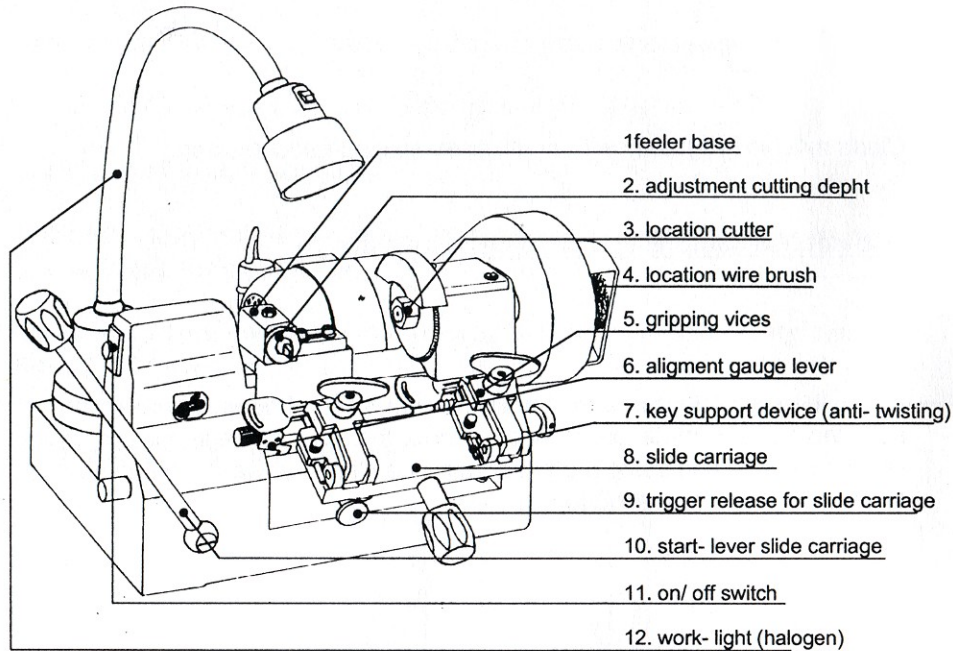
Lubricate with good quality machine oil every 4 months (earlier if required) the following parts:

- carriage shaft
- start lever for slide carriage
- cutter spindle

(see parts shown marked on page 13)

Keep pulley wheel and drive belt always free of grease !

Main functional parts



Description of main functional parts

Feeler base (1)

The feeler base (1) holds the adjustable feeler. Adjustment please see page 11.

Adjustment cutting-depth (2)

To increase cutting depth:

- loosen front-adjusting chrome washer by turning to the left
- turn back-adjusting chrome washer to the left (feeler will move backwards) until the required depth is reached
- retighten the front-adjusting chrome washer

To decrease cutting depth:

- loosen back-adjusting chrome washer by turning to the left
- turn front-adjusting chrome washer to the right (feeler will move forwards) until the required depth is reached
- retighten the back-adjusting chrome washer

Changing cutter (3)

Switch machine off at mains. Remove cutter guard. Loosen cutter nut by pulling spanner towards you, to stop the spindle turning, put the 6 mm bar from tool kit in the hole in the belt pulley wheel.

Fit the new cutter and tighten cutter nut by pushing the spanner to the left. Check the adjustment of the machine (depth and spacing - see page 11).

Attention! Remove all tools from cutter spindle before turning the machine back on at mains.

Changing wire bush (4)

Switch machine off at mains. To change the wire brush loosen the two screws in the outer belt cover. Loosen the socket screw in the wire brush holder and pull out the wire brush. Install new wire brush and retighten socket screw in the wire brush holder. Mount the outer belt cover.

Gripping vices (5)

Gripping vices/jaws to hold keys and the special gripping devices. Left vice to hold the sample- and right vice to hold the key blank.

Alignment gauge lever (6)

The levers are used to correctly position key and key blank. Preparing and checking see pages 9 and 11.

Key support device (7)

This round pin is used to help prevent the key or key blank from twisting. To use, loosen knurled holding screw and extend the pin until it acts as a support under the key and key blank. There are also in the tool kit round pins, that can be put in the grooves of the key and key blank to stop twisting.

Slide carriage (8)

Slide carriage for holding the vices - with spring tension, trigger release (9) and alignment gauge levers (6).

Trigger release for slide carriage (9)

Safety device to hold the slide carriage in „park -position“ for working on the vices (gripping of keys etc.). In order to release the carriage to the feeler and cutter push carriage little further down and pull trigger release on the left side below the carriage. Be aware of the spring tension of the carriage.

Start lever slide carriage (10)

Movement of the slide carriage (8) to the left and/or to the right by using the start - lever (10).

The position of the start-lever is adjustable. Loosen screw (with screw-driver) and adjust start-lever into the required position.

On/Off switch (11)

Switch in pushed position - machine is ON.

Machine is fitted with a restart-protection after cut of power supply. In order to restart the machine after a cut of power supply push switch once from ON - to OFF-position.

Work-light - halogen (12)

Optional at extra cost available.

Minimum distance between work-light and subject at least 0.3 m.

Setting up machine for cutting a key

Cutting keys with a shoulder for location

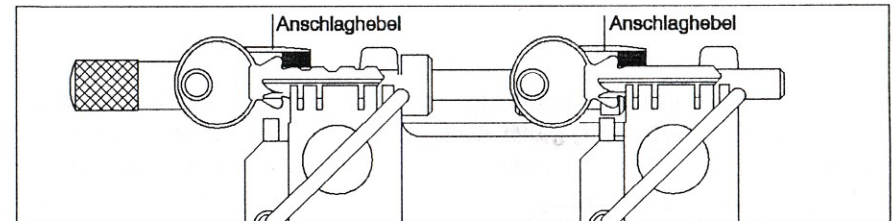
Fasten the pattern of the key to be reproduced firmly in the left hand vice with the shoulder of the key appr. 2 mm away from the left hand side of the vice. Rotate the alignment lever until the flat edge of the left hand alignment guide locates against the shoulder of the pattern key. Fasten the key blank in the right hand vice with the shoulder of the key blank pushed firmly up to the right hand alignment gauge lever. When both key and key blank are correct located in the two vices rotate the alignment lever back out of the way.

For location of keys with shoulders on both sides, push pattern and key blank firmly against the right hand side of the vices.

In order to prevent cutting into the vices when copying small keys or keys with deep-cuts (below 3.70 mm) use small round pins. Place the pins in the vices behind the back of the pattern and key blank.

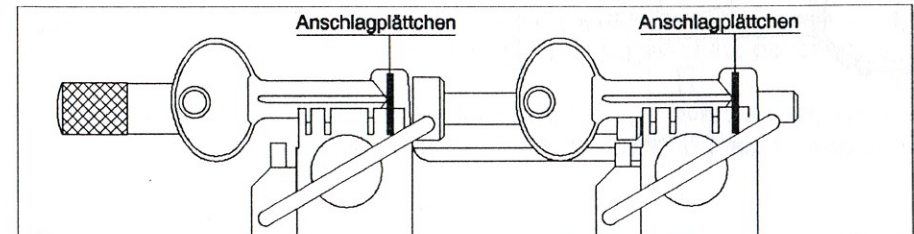
Please use the on page 7 described key support device (7) to help prevent the key and key blank from twisting.

Clean the vices and the key support regularly with the brush to avoid swarf accumulating.



Cutting keys without shoulders for location

The correct positioning of this type of key is made possible by using the flat bars of the tool kit as tip-stops. Place these bars in the left or right hand slot-cut in both vice-faces (both pattern and key blank should be in the same slot position). Push pattern and key blank up to each bar and tighten the keys in the vices.

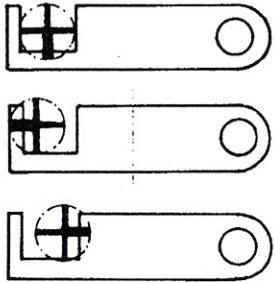


Cutting cross type keys (up to 100 mm)

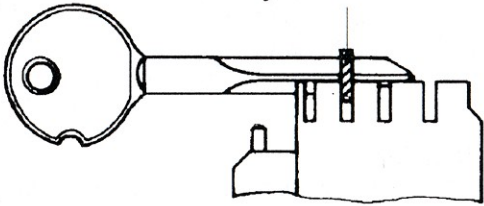
Depending of the length of the cross keys use the flat bars as a shoulder stop to locate the keys. Place the flat bars in the slot-cuts of the left hand side of the vices. After gripping of the keys push the flat bars backwards.

For location of cross keys with a ring push pattern and key blank with the ring firmly against the left hand face of the vices. Place a flat bar into one of the slots of the right hand side of the vices to prevent the top -part of the vices from moving sideways.

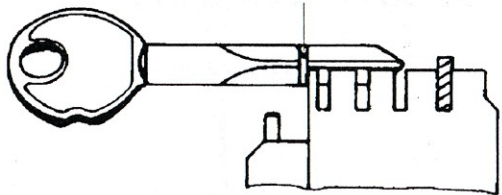
flat bars



cross keys w.cut- out sect.



cross keys with ring



Starting operation key cutting

Switch machine on at on/off switch (11).

To release the carriage - see page 8 (9). **Hold slide carriage carefully** at carriage knob and gently engage the feeler to the first cut of the pattern at the key bow. By using the carriage start-lever (10) copy the key from the shoulder to the tip of the key. After cutting push slide carriage back to „park -position“. Use wire bush for deburring the key.

Checking and adjusting

Cutting depth (see page 12)

Fasten check-up-keys in the left- and right-hand vice. Release carriage so that cutter and feeler are touching the edges of the check -up-keys. Readjustment please follow instructions

adjustment cutting-depth (2)“ on page 5.

Lateral distance (see page 12)

Feeler - cutter

Fasten check-up-keys in the left- and right-hand vice. For location push check-up-keys firmly against left hand side of the vices.

Release carriage so that cutter and feeler are exactly in the cuts of both check -up-keys.

Readjustment: Loosen the two socket screws to the right of the feeler base (1). Move the feeler base until cutter and feeler are exactly in the cuts of both check-up-keys. Tighten socket screws again.

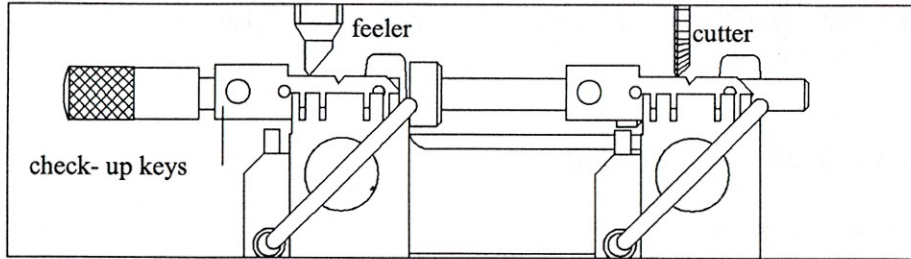
Alignment gauge lever

Rotate the alignment gauge lever until the flat edges of the levers locates against the shoulders of both check-up-keys.

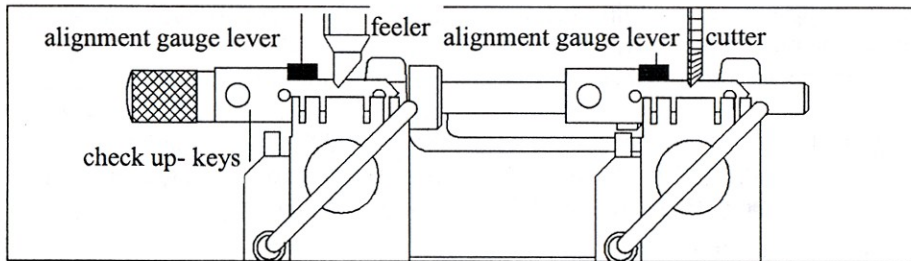
Proof: Insert a thin piece of paper between shoulder of check-up-keys and alignment gauge levers. Both pieces of the paper should be stuck.

Readjustment: Loosen screws on the alignment gauge levers and push levers against shoulders of the check-up-keys. Tighten screws again.

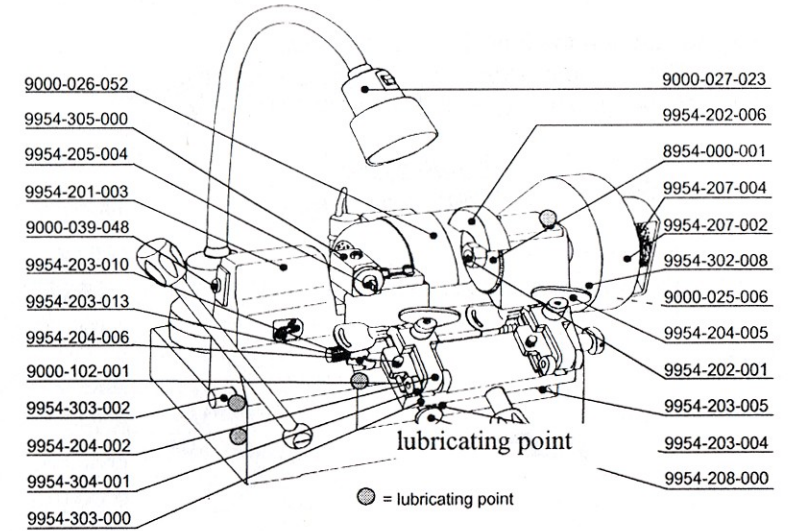
cutting depth



lateral distance



Spare parts



9000-026-052 motor 230 V
9954-305-000 feeler base complete
9954-205-004 feeler
9954-201-003 switch cover
9000-039-043 push button switch
9954-203-010 alignment gauge axle
9954-204 013 alignment gauge lever
9954-204-006 knurled screw
9954-102-001 round key support
9954 303-002 carriage axle
9954-204-002 upper part of the vice
9954-304-001 lower part of the vice
9954-303-000 slide carriage compl.

9000-027-023 work- light
9954-202-006 cutter guard
8954-000-001 cutter 4,4 mm
9954-207-004 wire brush 70 mm
9954-207-002 outer belt cover compl.
9954-302-008 inner belt cover
9000-025-006 belt 10x6x450
9954-204-005 wing nut
9954-202-001 cutter axle
9954-203-005 carriage spring right
9954-203-004 carriage spring left
9954-208-000 trigger release compl.
9954-304-000 gripping vice compl.

Special version key cutting machine

Börkey Rexa III DSB

- fitted with double-VICES and feeler-fine-adjustment.

The double-VICES can grip the keys by two methods:
upper vice (pict. 1) can grip the keys on the blade of the key.
lower vice (pict. 2) can grip the keys in the milling of the key.

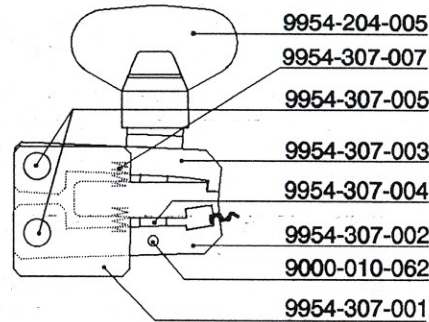
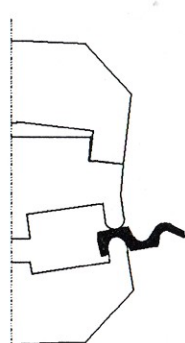
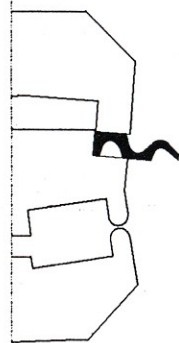
Pict. 1

Pict. 2

Spare parts:

DSB- vice compl.

9954-307-000



9954-204-005

9954-307-007

9954-307-005

9954-307-003

9954-307-004

9954-307-002

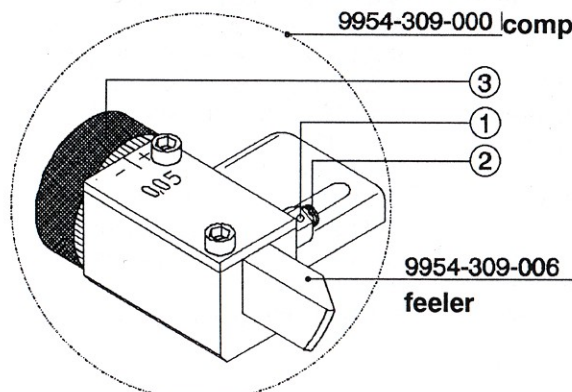
9000-010-062

9954-307-001

Checking and adjusting

Cutting depth

Follow instructions given on the pages 11



Loosen nut and hexagonal socket screw on the right hand side of the feeler base.
Adjust cutting depth by turning the back knurled ring at the rear of the feeler.

Turning in „+“ direction: means to decrease the cutting depth

Turning in „-“ direction: means to increase the cutting depth

After readjusting tighten the socket screw and hexagonal nut again.

Fault finding

Machine does not work

Check mains plug is in socket and mains supply is on.

Control light of the switch does not light on

Check as above.

Attention: work on electrical equipment on the machine must only be performed by a skilled electrician.

Power is on but cutter will not rotate (machine is connected to power supply)

Disconnect belt cover.

Check belt is connected or defective.

Check if pulley wheel will turn.

Check if motor axle will turn.

Belt is defective

Change belt. Use only genuine belts. Loosen 4 nuts under body of machine and reposition motor unit belt fits on both pulley wheels. Push motor back to old position and retighten nuts.

Work- light does not work

Check if plug is in socket and turned on.

Work- light is defective

Check halogen bulb 12V/20W and change if defective (order no. 9000 027 023).
Wear gloves before touching the bulb.

Cutter is noisy, bad cutting quality or machine is out of adjustment

Change cutter (see page 7).

Check adjustment of machine (see page 10).

In case of any other faults please contact our sales department.

Telef.: 02332/7006-0.