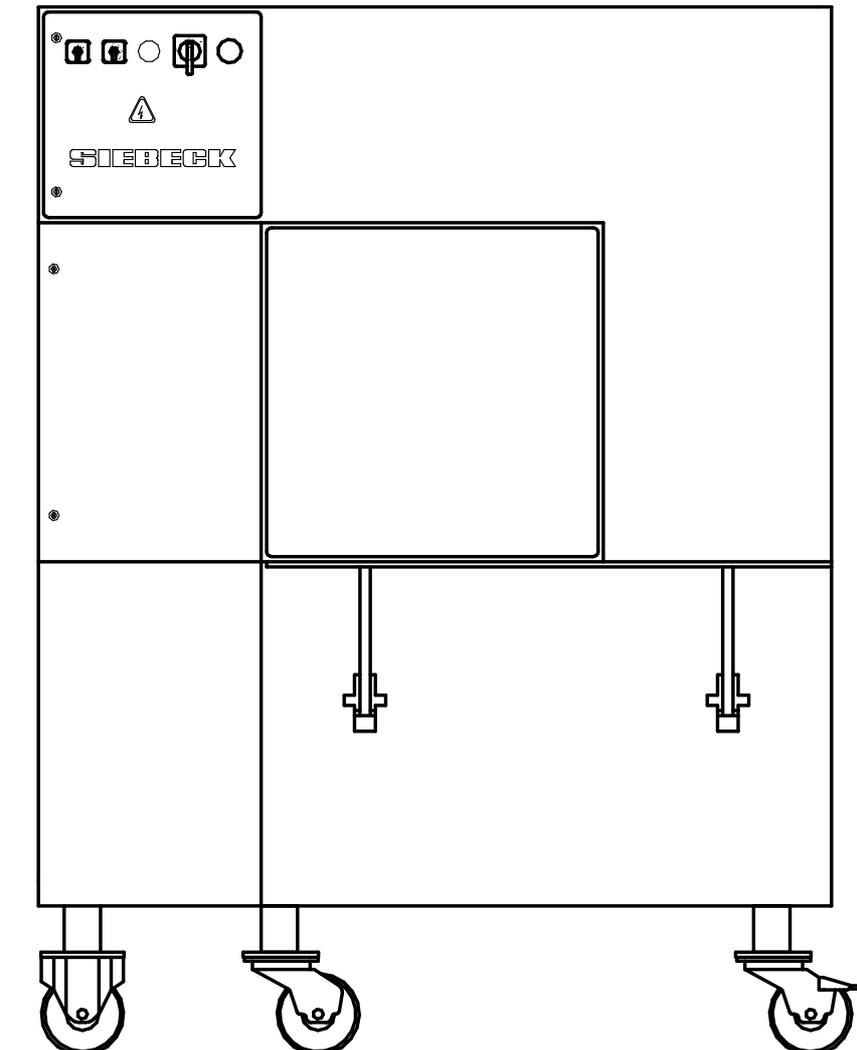


Translation of the original operating manual

SIEBECK

JET 2000 Strapping Machines

Model range JET-OB



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IMPORTANT!

Read this manual carefully. This is compulsory for anyone operating, servicing or monitoring this machine.

Foreword

This machine has been built in accordance with the state of the art, and pursuant to worker protection and accident prevention regulations, such that under **normal proper use, there is no danger** to life and limb of the user or of third parties.

Any person in the user's company, who is involved with the set-up, start-up, operation, servicing and repair of this machine must have read and understood this instruction manual, and in particular the chapter on "Safety".

Customer-specific changes, restrictions or extensions and the resulting safety-technical consequences shall be the responsibility of the user company.

If this machine is sold or set up elsewhere, then this instruction manual must be given to the new owner or the new user. Additional copies may be ordered from the address given below.

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WARRANTY

All the machines that have been manufactured in our production facilities have a 12-month warranty from the start-up, or 18 months after the delivery. This warranty relates to material and manufacturing defects.

The warranty covers all parts, with the exception of wear and tear parts and parts, which are replaced as a result of normal wear in the maintenance. Working time and breakdowns are not included in our warranty obligation.

Should damage to the machine occur, through the use of inappropriate strapping material, explicitly advised against by us, this warranty shall not apply.

All claims must be made in writing. A precise description of the cause of the damage and the part and machine number must also be added. Once the warranty claim has been accepted by us, the faulty part must be returned to us.

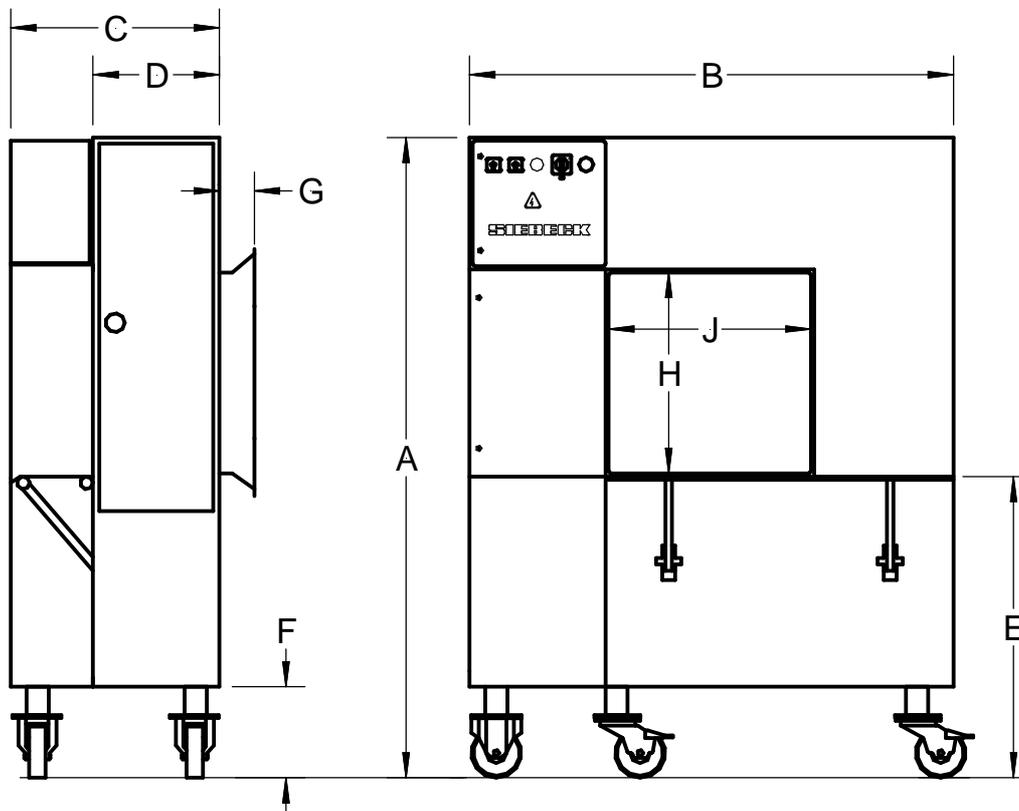
This warranty is only valid if

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original parts without any modification are used.

Technical data

Machine dimensions:



Typ	A	B	C	D	E	F	G	H	J
OB 50	1810	1220	660	400	955	290	110	500	500
OB 65	2040	1530	660	400	960	290	110	650	650
OB 100	2515	2220	660	400	920	290	110	1000	1000

all dimensions in mm – subject to change

Machine capacity: 25 to 45 cycles per minute (depending on machine type)

Machine weight: OB 50 – 260 kg / OB 65 – 290 kg / OB 100 – 460 kg

Sound pressure level: 70 dB (A)

Electr. connection value: 230/400 Volt / 3 phase alternating current / 50 Hz / 1 Kw

Safety!

- 1.** The European standard EN 60204-1 requires that power be supplied via an appropriate plug and socket device. Connecting the power supply cable directly, without a plug to a power distributor is therefore prohibited.
- 2.** The safety limit switches 4S1 and 4S2 prevent the machine from starting when the side door is open. This safety device must be checked before each start-up to ensure it is working.

Procedure:

Open door, do not reach into the inside of the machine (!),
Then activate foot switch. Machine must not start.

- 3.** Remove the mains plug when carrying out **any** maintenance and cleaning works
- 4.** **Always** remove the mains plug when inserting a new cord reel, and when threading the cords.

Set-up and start-up

Make sure the **operating voltage is correct** before starting up the machine.

Operating voltage:

Unless otherwise specified, the machine is set on delivery ex works at 400 Volt alternate current 50 Hz. Measure local mains voltage and compare with the specification on the rating plate. Check for proper grounding. Follow local EVU regulations. Maximum back-up fuse 16 amp.

Direction of rotation:

Connect the machine with a plug to the mains. Set on-off switch to position "1". If the indicator light does not light up, the built-in phase sequence relay locks the power supply, due to an incorrect direction of rotation. For correct direction of rotation, exchange the two phase wires in the plug.

Service and Maintenance

Maintenance-free, needle bearing-mounted track rollers, capped deep-groove ball bearings, and other low-maintenance and wear-resistant components reduce the amount of care and maintenance to a minimum.

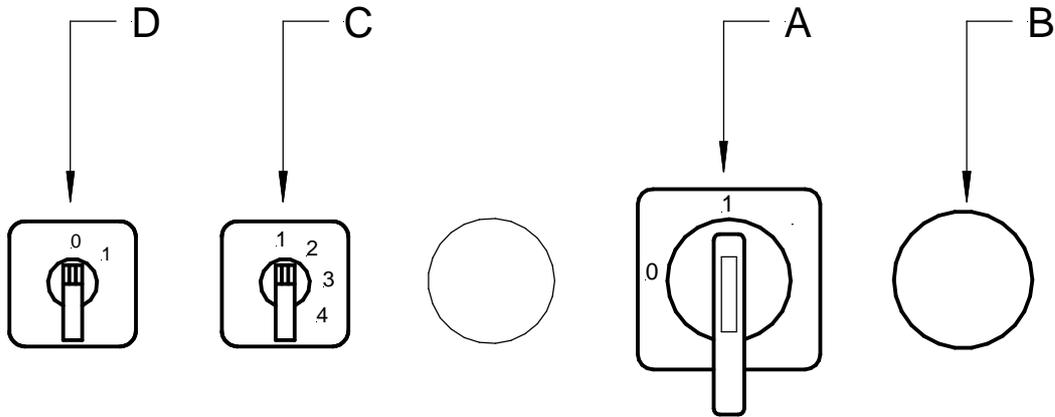
We recommend cleaning the machine (do not use compressed air) every week and lubricating all moving parts, especially the parts of the knotting unit every week. The cord guide rollers and the bearing of the return arm should also be oiled every week and checked for ease of movement (use only non-resinous oils).

IMPORTANT!

Remove the mains plug when carrying out any maintenance and cleaning works!

Control elements

On the control panel cover on the front of the machine, you will find the following control elements:



- A On- off switch**
 Switch position "0" - Machine "off"
 Switch position "1" - Machine "on"
- B Indicator light** - signals the presence of voltage, and the correct direction of rotation
- C Selector switch (1-4)** - for single- to multiple strapping
- D Selector switch (0 / 1)**
 Switch position "0" - Normal operation
 Switch position "1" - continuous strapping
 Keep foot switch activated, the strapping cycles are automatically triggered, between the individual cycles, a downtime of 0.5 sec is programmed at the factory.

On the inside back wall of the machine accessible when the side door is open:

Push button

- (on the side doors) - constant activation ventilates the brake of the strapping arm or ring motor. The ring can be turned manually to thread the line more easily.

Push button

- (on the knotting unit) - brief constant activation sets the knotting unit to "tip operation".

Inserting the cord

When the machine leaves our premises, it is fully threaded with a piece of cord. Carefully study the course of the cord and you will be able to understand the following description more easily.

Proceed as follows based on the threading diagram opposite:

- Loosen the spring cap (A) on the reel case and fold lid back
- Remove fastening nut (B) for cord reel
- Insert cord reel and press against the foam rubber inlay (D). It is important to ensure that the paper case of the cord reel is sitting tight on the expanding mandrel (E). Screw fastening nut (B) and turn onto the paper case until the foam rubber bulges.
- Guide the start of the cord through the opening (F) in the reel case cover and close cover via the spring cap (A).
- Insert cord into the thread brake (G). Ensure that the cord ends up between the two pins (H) and the shaft of the hexagon screw (I) (see Figure).
- The next cord guides are designed as rollers. Thread the cord in the following number sequence:

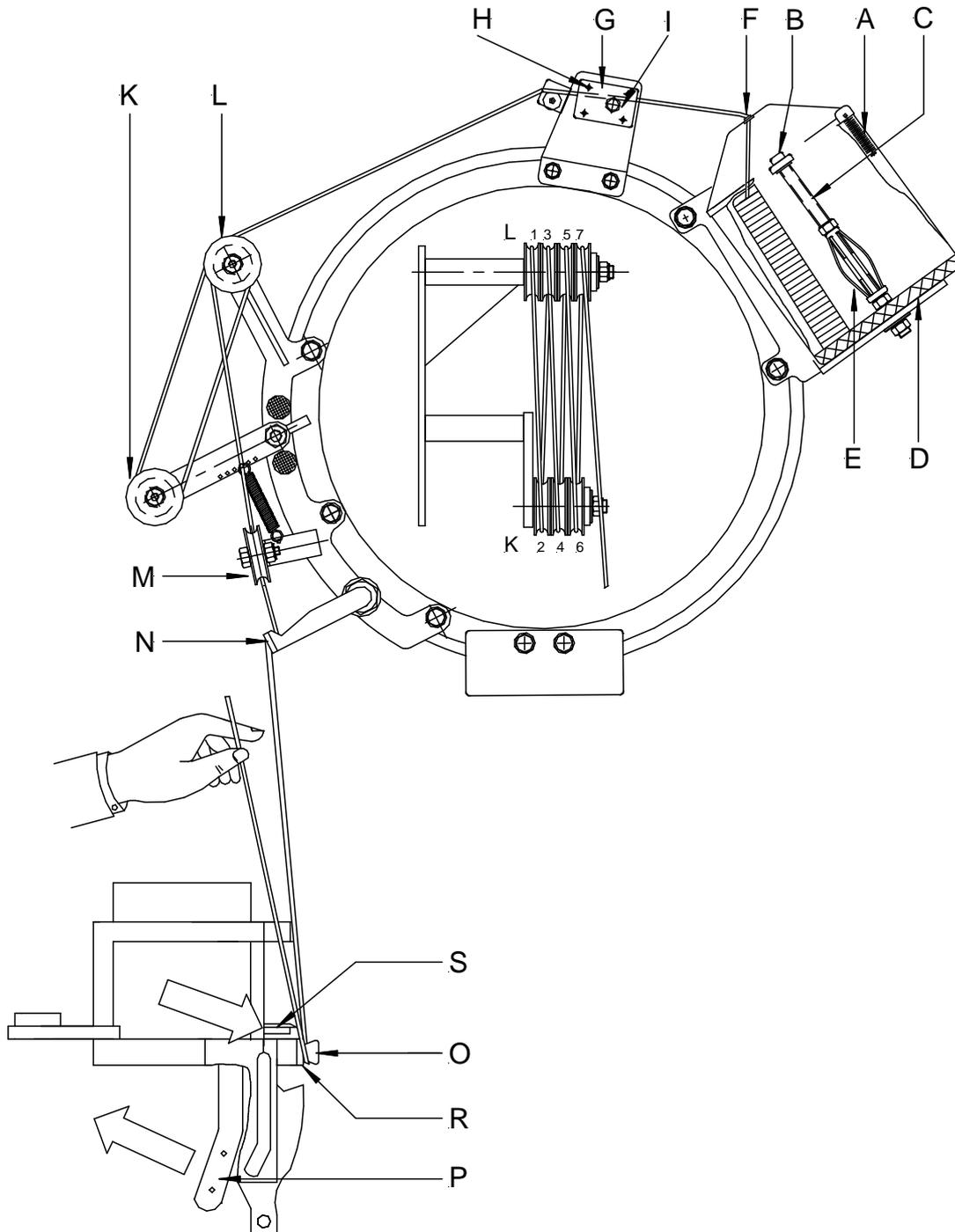
L1 – K2 – L3 – K4 – L5 – K6 – L7 - M

- Guide the cord through the bore (N) at the end of the strapping arm tube.
- Inserting the cord into the knotting unit:
Lay the cord with your left hand around the clamp (O), from bottom to top. With your right hand, activate the clamp-ventilator lever (P) in the direction of the arrow. While the left hand holds the cord tightly, the cord ends up between clamp (O) and clamp housing (R). Once the clamp – ventilator lever is released (P), the cord is clamped. With the right hand, press the cutter lever (S) forward in the direction of the arrow, the cord is cut.

IMPORTANT!

Check the cord rollers and the return arm for ease of movement each time you thread and oil if necessary.

Inserting the cord



Operating the machine

Procedure

1. Single strapping

Set on- off switch to switch position "1".

Selector switch (1-4) to switch position "1".

The product to be strapped is set on the machine table. The left side of the product must lie against the left tunnel wall. Push the product back across the strapping level until the desired strapping position is reached. Hold the product tight with both hands in front of the strapping level, fingers on the side, thumb up. The strapping process can now be started by activating the foot switch. The strapping arm makes one rotation, the strapping ends are knotted. Only remove the product if the strapping process has ended.

2. Multiple strapping

Set selector switch (1-4) to switch position "2", or "3", or "4".

Bring the package to the position as described above. Activate foot switch. The strapping arm makes the relevant number of rotations, the strapping ends are knotted.

3. Continuous strapping

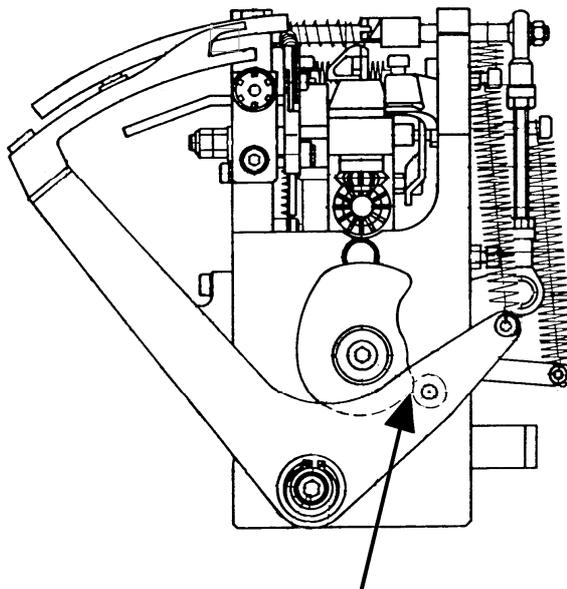
Set selector switch (0/1) to switch position "1".

Keep foot switch activated, the strapping cycles are automatically triggered. Between the individual cycles, a downtime of 0.5 sec is programmed at the factory.

CAUTION!

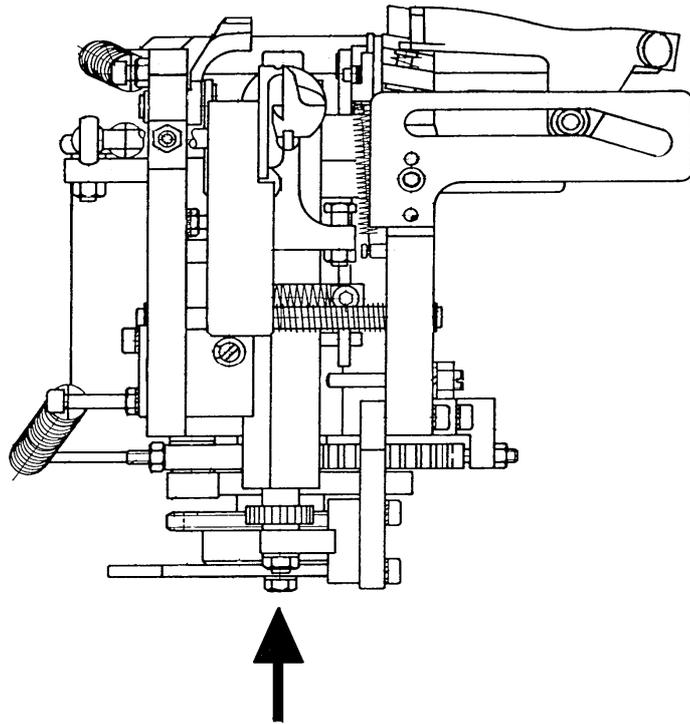
Do not start the machine without any product!

Zero test



The correct zero setting of the knotting unit is achieved, if the track roller of the injector lever is 2-4mm before the curve drops.

Zero adjustment



Loosen the hexagon screw marked in the drawing above, adjust the limit switch operating vane up or down, until the correct zero point is reached after the next rotation of the unit.

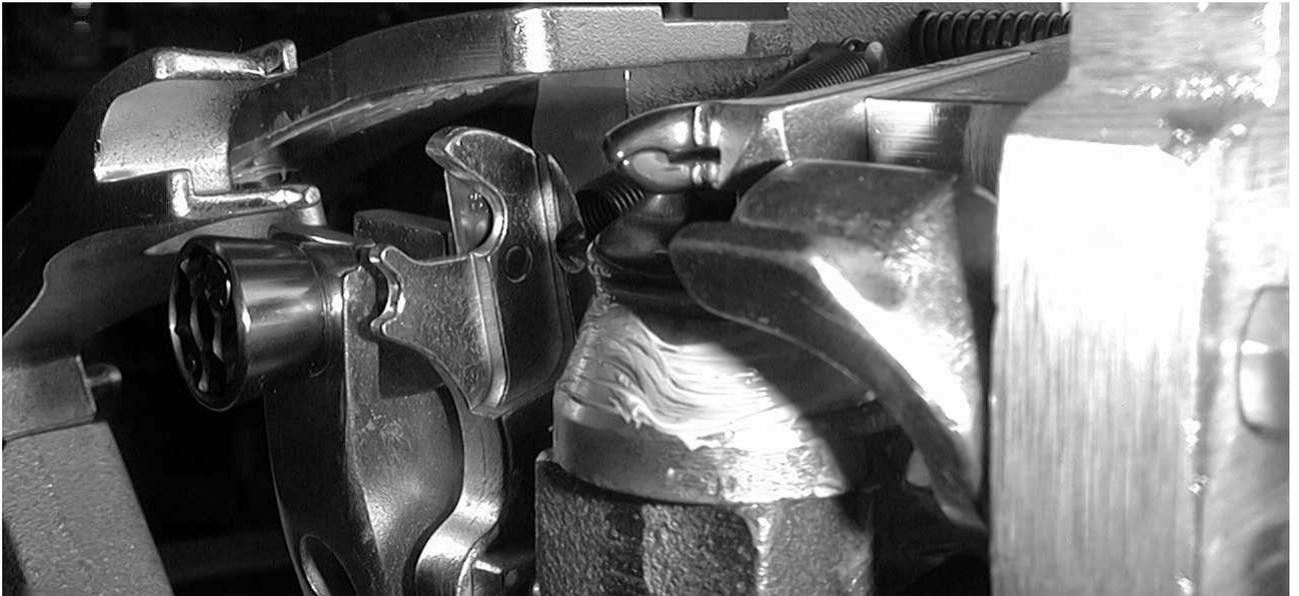
Stripper setting

The lateral setting of the stripper is done via the threaded pin No. 9 (Group M4).

In the backwards movement of the knotter, the stripper should lie with pressure against the knotter.

The height is adjusted via the joint head No. 2 (Group M4).

The Figure below shows the correct height of the stripper slot to the knotter.



Faults and their causes

NB!

Never re-work the surface of the clamp housing! This area has a precisely defined contour. The dent is intentional and is not caused by wear and tear. Only make any adjustments required by adjusting the thread brake and clamp – spring.

1. Threading:

Make sure that threading has been done correctly. Cords running the wrong way are the most common cause of thread breaks or other faults (see: Inserting the cord Page 9 and 10).

2. Cord:

The machine is set for a specific cord thickness. Always use the same cord quality and thickness to achieve the best results.

- a) cord that is too weak often rips on the clamp instead of being pulled out unhindered
- b) if the cord is too thick, it won't release from the knotter
- c) cord that is too thin causes a loose knot

3. Clamp:

If you use good cord quality in the correct thickness and it still rips, leaving fibre remnants in the clamp, this is usually due to too high spring tension on the clamp. Reduce the spring tension. Make sure the adjusting shim (see assembly 3, serial No.15) is correctly engaged again.

4. Thread tension:

You will get the best results with a smooth, shock-free setting of the thread brake. Check the setting by pulling out a few metres from the strapping arm tube. You can adjust the thread tension by turning the knurled nut on the thread brake

The knot story

Faulty knots and causes

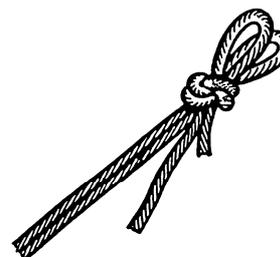
Short loops

Knotter opens too soon. Mount for track roller
Move knotter opening backwards in the direction of
the chain wheel. Stripper is not against the knotter.
STRING too thin.



Knot not tight enough

Stripper slot too big. Knotter opens too soon.
String too thin.



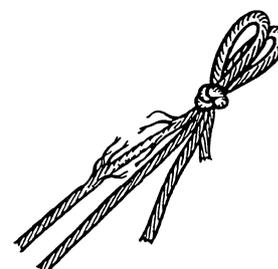
Thread badly cut off

String cutter is blunt. Turn or replace cutter.



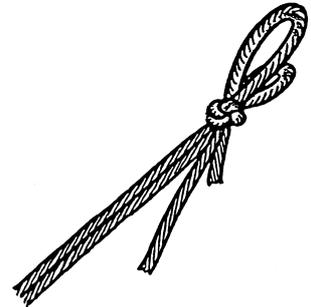
Thread break before knotting

Sharp edges on stripper, injector,
lifter, or cutter lever.



A normal long and a short loop

Knotter not closing properly. Tension spring of the Knotter lock too weak. Stripper not lying against the knotter.



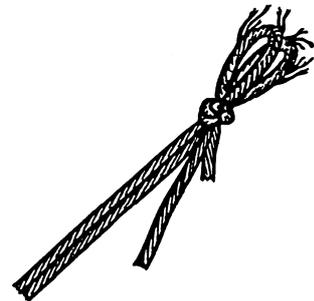
Single loop

The knot has only a single loop; the second loop is pulled through. Increase spring pressure on the clamp. The thread end hanging over the clamp must not move when the strapping arm starts to run.



Loop ends frayed

Knotter upper or lower finger or stripper sharp-edged.



The perfect knot

The correct knot has two loops of the same length, and a short and a long thread end. The knot is tight and hard.

