For the professional user

Mechanic's Instructions

Für den professionellen Anwender

Mechanikeranleitung

Class: 710
Klasse:

Model: 2
Ausführung:

Dated:
Stand:

STROBEL
Spezialmaschinen GmbH

The sign of quality

You find the Strobel trademark on every Strobel machine leaving our works. And with good reason. This symbol is a guarantee of the high quality of our products. Quality which creates trust – trust in our technology, our service and, not least of all, in our good name.

Im Zeichen der Qualität

Sie finden die Strobel-Schutzmarke auf jeder Strobel-Maschine, die unser Werk verlässt. Und das aus gutem Grund. Denn dieses Zeichen garantiert Ihnen die hohe Qualität unserer Produkte. Qualität, die Vertrauen schafft – in unsere Technik, unseren Service und nicht zuletzt in unseren guten Namen.

A decision with future

Strobel clients know that they can expect a particularly high standard of performance from our company and our machines. Now you have settled for one of our products. For us this is a source of encouragement and of obligation to Justify your trust.

If you wish to profit from the performance and efficiency of your Strobel machine as long as possible, exact handling and thorough care is necessary. For this reason we kindly request that you read the operating instructions closely.
It provides all the information you need for trouble free operation.

And if you do happen to need a spare part the enclosed spare parts list gives a complete overview. It is clearly
classified according to components so that you can find the required part quickly and easily. In order to avoid errors we request you to quote machine class, machine number and part number completely on your spare part order.

We wish you lots of success in your work with your new Strobel machine.

STROBEL
Spezialmaschinen GmbH

STROBEL

Mechanic's Instructions
STROBEL Classes 710

Contents

Subject to change without prior notice

1 General notes on safety

Manuals and additional information can be found on the STROBEL website at:

http://www.strobel.biz

Every person in charge of setting up, operating, servicing and repairing the machine must first read and understand the operating instructions and particularly the safety instructions before starting up the machine.

Failure to comply with the following safety instructions can lead to physical injuries or damage to the machine.

1. The machine must only be operated by persons familiar with the relevant operating instructions and who have been instructed accordingly.
2. Before commissioning also read the notes on safety and the operating instructions of the sewing drive manufacturer.
3. Only use the machine in the intended manner and never without the provided guards. Always observe the pertinent safety regulations.
4. Switch off the main switch or pull the power plug for threading, changing the bobbin, exchanging sewing tools such as needle, hook, stitch plate, transport devices, trimming knive and cutting block, for cleaning and when leaving the workplace as well as for maintenance.
5. General maintenance tasks may be carried out only by properly trained persons in accordance with the operating instructions.
6. Repair work, retrofitting and maintenance may be carried out only by technicians or specially trained personnel.
7. When servicing or repairing pneumatic equipment, the machine must be disconnected from the pneumatic supply. Exceptions are only allowed for adjustment work and tests of functionality performed by specially trained technicians.
8. Only specially qualified technicians may work on the electrical equipment.
9. It is forbidden to work on electrically live components! Exemptions are covered by the EN50110 (DIN VDE0105) regulations.
10. Any retrofitting or alterations to the machine may only be performed under strict compliance with all pertinent safety regulations.
11. Only use our approved spare parts when servicing and/or repairing the machine.
12. It is forbidden to operate the sewing head until it is determined that the entire sewing unit complies with EU provisions.

13. It is essential that you observe and follow these instructions as well as the generally valid safety regulations.
14. Warning instructions given in the operating instructions that pertain to especially dangerous parts of the machine must be indicated at these positions using a safety symbol.

Warning instructions given in the operating instructions that pertain to special injury hazards for operating personnel or technicians must be indicated at these positions using a safety symbol.

2 General

In the operating- and mechanic instructions you will find references to the titles of the video tutorials for the machine class 710.

For further information please contact us by mail:

Mr. Strobl strobl@strobel.biz
Mr. Jäger jaeger@strobel.biz

Videos: “00Introduce 710 with DAC”
„Information about new machines_part_1.MTS“
„Training Videos_part_1.MTS“

2.1 Operating instructions

Any person involved in the installation, operation, maintenance and repair of the machine must have read and understood the operating instructions and mainly the safety instructions before starting the machine.

2.2 Class description, serial number and initial basis for description

For side-referenced descriptions, the operating side of the machine is the starting base.
The class descriptions (type), the serial and model number (after the hyphen) can be found on the rating plate on the back of the machine.

2.3 Range of application and intended use

Two-thread lockstitch blindstitch sewing machine for felling the lining of jacket/coat hems and for finishing fabric hems on half-lined jackets and coats.

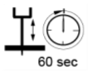
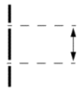
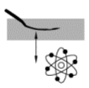
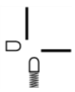
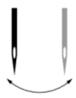
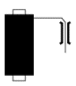
Videos: “Sewing and making a sewing program_1”

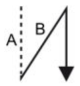
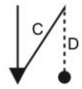
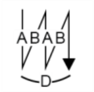
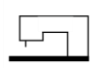
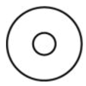
“Sewing and making a sewing program_2”

The enclosed parts allows both processing methods.

Variable sewing tools you will find under point 7 of the operating instructions.

2.4 Technical data

	Technische Daten / Technical data	
	Empfohlene Nennstichzahl / Recommended rated speed	1300 min-1
	Stichlänge / stitch length	3,0 - 6,0 mm (abhängig vom Nähmaterial / depend on fabric) Auslieferzustand / delivery condition 4,5 mm
	Programmierbar / Programmable	6 schnell programmierbare Speicherplätze für individuelle Stichtiefenwerte und Maschinen-drehzahlen die während des Nähvorgangs gewechselt werden können. / 6 fast programmable memory locations for individual stitch depth values and machine speeds that can be changed during the sewing process
	Stichtiefeneinstellung über Schrittmotor gesteuerten Taucher / Stitch depth adjustment via step motor controlled plunger	(Einstellgenauigkeit) Taucher mit 0,01 mm Schritte/ (setting accuracy) plunger with 0.01 mm steps
	Unter-, und differenzierender Seitentransport / bottom and differential lateral feed	verschiedene Transporteure optional / various feed dogs optional
	2 Taucher und zwei gefederte Sperrzähne / 2 Plungers and two spring loaded clothretainer	
	Stichplattenöffnung / stitch plate opening	7,0 mm für dünne Stoffe / for thin fabric Optional: 8mm für dickere Stoffe inkl. Kit für halbgefütterte Sakkos 8mm for thicker fabric inclusive kit for half lined jackets
	Nadelpendelung / needle oscillation	
	Nadelsystem / needle system Nadelstärke / needle size	GROZ-BECKERT 1828 E 80/12
	Fadenspannung / thread tension Faden / thread	Auslieferzustand / delivery condition 50 cN Polyester, endlos gezwirnt / polyester continuous filament 180/2

	Mehrweite per Fußpedal differenzierbar / fullness by foot pedal differentiable		
	Einfacher Anfangsriegel / Simple initial backtack		Einfacher Endriegel / Simple end tack
	Einmalige Riegelunterdrückung / One-time tack suppression		Halbstich / Half stitch
	Durchgangsraum / arm space 420 mm x 150mm		Flachbettmaschine / Flatbedmachine
	LED Leuchte / LED sewing lamp		Separater Fadenspuler / Separate thread spooler

Technischer Auslieferzustand / delivery condition:	
Motor-Leistung min. –Steuerung / min. motor power – control box	500 W – DA432 / DAC Classic
Zahnriemenscheibe Maschine / toothed belt pulley/machine	Z = 38
Zahnriemenprofil / toothed belt profile	HTD 5M-9
Stichart / stitch type	Zweifaden-Steppstich-Blindstich Typ 313 / two thread lockstitch blind stitch type 313
Anschluss pneumatisch / pneumatic connection	6 bar
Luftverbrauch, Mittelwert / avarage air consumption	25 l / h
Stellfläche / Foot print	0,5 m x 1,1 m
Arbeitsgeräusch / operating noise at 1300 min-1 nach DIN 45635-48-1 KL3	LpAm 75 dB(A)

2.5 Adjusting instructions in brief

Plunger highest position to the needle	needle point 4 mm before centre plunger at 6 mm transport length
Plunger stops to the needle	needle point 5 mm after centre plunger
Transport length lower transport	3 - 6 mm
Transport length upper transport • position on (1) (Fig. 15) •• position on (1) (Fig. 15)	 2 - 5 mm 4 - 7 mm
Transport start at 6 mm transport length	needle point 3 mm after centre plunger
Transporter position back	4 mm air to the presser plate
Upper transport start to lower transport	synchronized
Presser plate lift (basic position)	5 mm
Presser plate lifts	needle point 10 mm before centre plunger (return path)
Lifting value between presser plate and stitch plate	11 mm
Side presser lift	4.5 mm
Side plunger path	4.5 +0.2 mm
Upper dead point side plunger cam	needle point 7 – 8 mm before side plunger centre
At stitch plate contact of the plunger stop levers and response of the upper dead point of the side plunger cam	crank movement results 0.15 mm above thread M5, upper plunger lies against fabric support surface
Position of the eccentric bolt	46° to the vertical
Pusher position	horizontal
Interval stroke	4.8 ±0.2 mm
Setting value of hook point to the needle eye	2 ±0.2 mm
Distance guide block to plunger guide plate	4.5 mm
Loop stroke	2 mm right needle position
Number of spot tacks	2 – 4 stitches

3 Notes on repair and adjustment

	C A U T I O N ! Danger of injury! Observe notes on safety and the operating instructions prior to maintenance and repair work. If these are not observed serious damages can occur.

Video: “yellow marked screws_part_1.MTS”

3.1 Stitch plate fitting

	A T T E N T I O N ! Disconnect machine from the mains!

Stitch plates are adjusted at the works and can be exchanged without problems.
The exchange of the needle slide plate does not require any additional adjustment either.

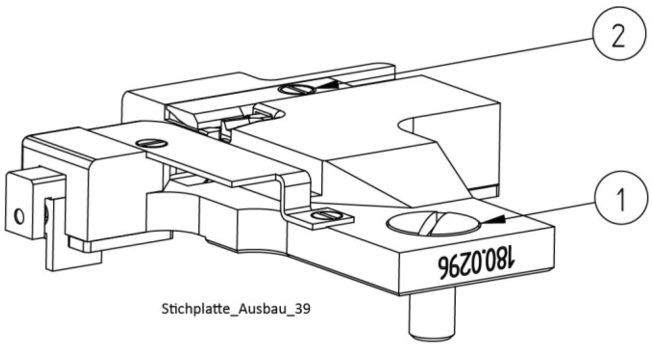
3.1.1 Removing the stitch plate (Fig. 1)

- Disconnect machine from the mains.
  With pneumatic lifting, plunger, presser plate and feed dog are vented (also side plunger, presser and feed dog)
- Remove needle
- Venting of plunger, presser plate and feed dog with knee lever
- Fold machine to the back release bolt (1) and remove stitch plate from the machine.

Videos: “Take out stitchplate_part_1.MTS”
“Take out stitchplate_part_2.MTS”

Fig. 1

Stichplattenunterseite
Rear side of needle plate



3.1.2 Fitting the stitch plate

Fitting is carried out in reverse order.
Care must be taken that the side transporter and the levers for the side plunger and the side presser are again in the correct position.

3.1.3 Adjusting the needle (Fig. 2)

A T T E N T I O N !

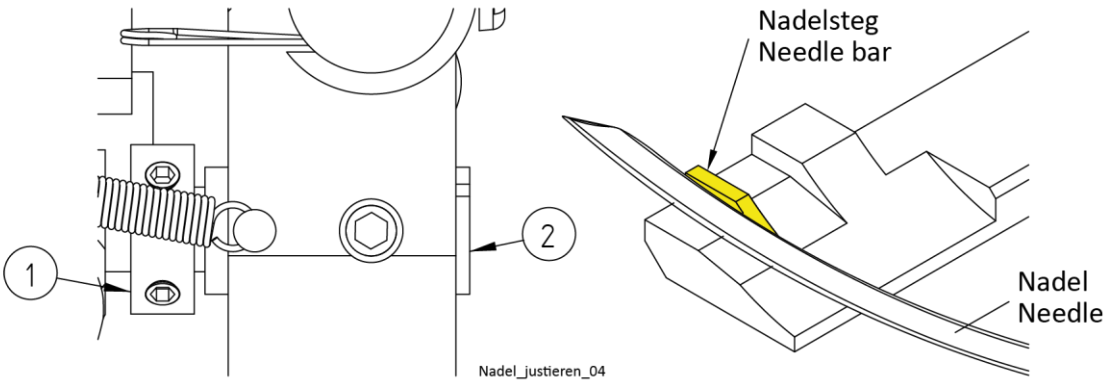
Disconnect machine from the mains!

Care must be taken that the needle at the left penetration is in contact with its right side to the left side of the needle slide plate separation web (yellow) 0 to 0.1 mm.

The over stitch width is set with the setting ring (14) which sits on bolt (15) of the needle lever.

Videos: “Setting left needle position_part_1.MTS”
“Setting left needle position_part_2.MTS”
“Setting left needle position_part_3.MTS”
“Set right needle position_part_1.MTS”

Fig. 2



3.1.4 Exchanging the needle slide plate (Fig. 1)

The needle slide plate is mounted at the underside of the stitch plate. It can be removed by releasing the cheese-head screw (2).

3.2 Adjusting the needle lever

A T T E N T I O N !

Disconnect machine from the mains!

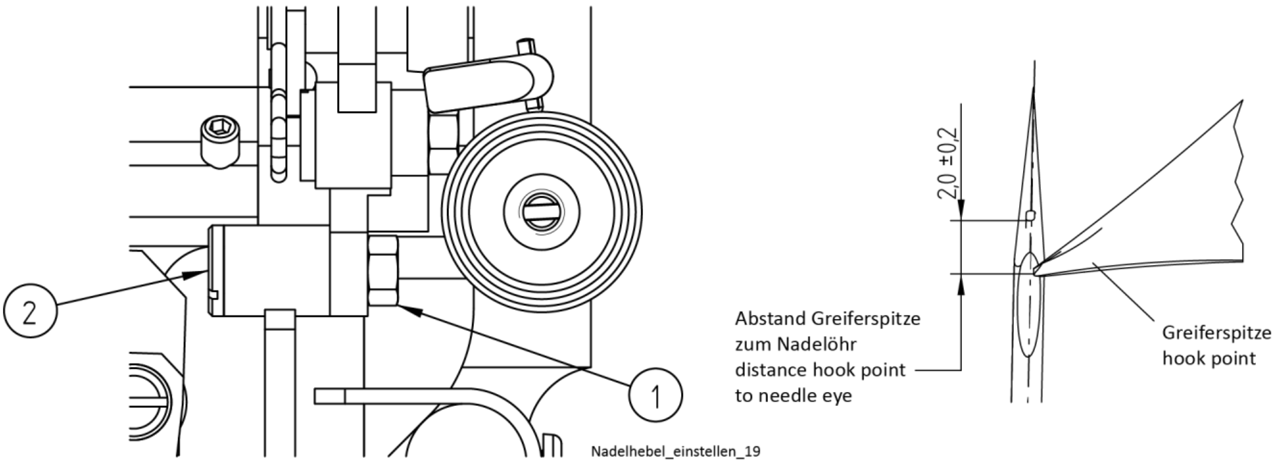
3.2.1 Adjusting the needle lever path (Fig. 3)

After removing the head hood and releasing the hexagon nut (1), the needle lever path can be corrected by turning the eccentric bolt (2).

The distance of the hook point (at normal loop stroke and position above the needle centre) to the end of the needle eye, pointing towards the hook point, must be 2 ±0.2 mm.

Video: "Adjustment distance Hooktip to Needleeye_part_1.MTS"

Fig. 3



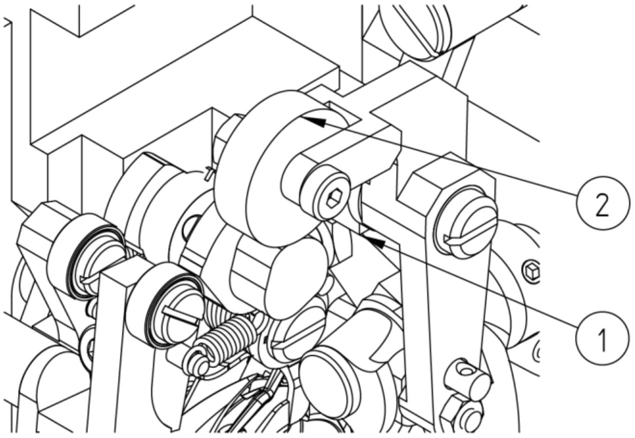
3.2.2 Side adjustment of the needle lever (Fig. 4)

The needle lever is adjusted in such a way, that it has a clearance of 0.1 +0.1 mm to the right side of the fabric support surface (of the side presser) at the deepest left needle lever position. This dimension can be set by sliding the fork (1).

During this the roller (2) must always lie on the radius of the upper part of the needle. In this context also note point 3.1.3 Adjusting the needle (Fig. 2).

Videos: "Setting left needle position_part_1.MTS"
"Setting left needle position_part_2.MTS"
"Setting left needle position_part_3.MTS"
"Set right needle position_part_1.MTS"

Fig. 4



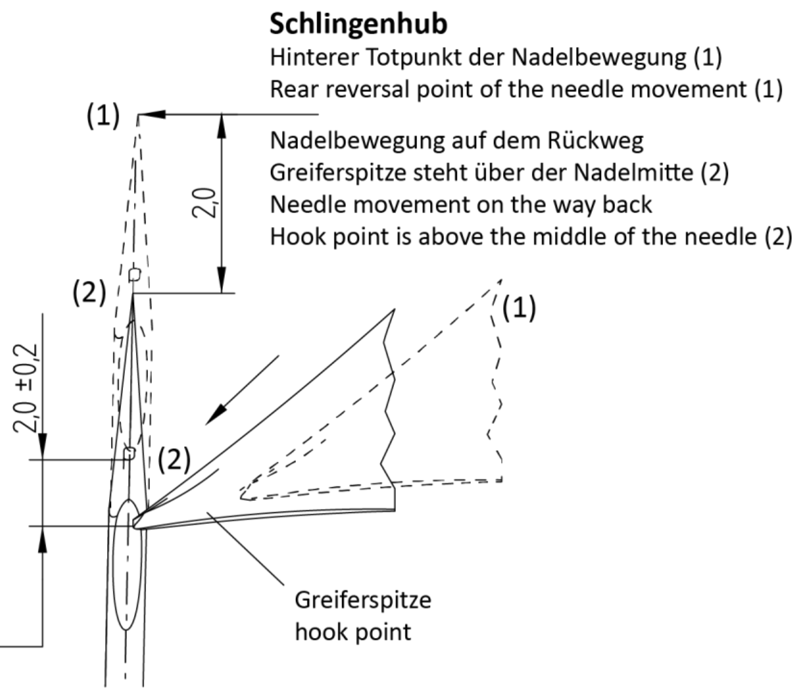
Nadelhebel_einstellen_20

3.3 Loop stroke (Fig. 5)

Under loop stroke one understands the path of the needle from its deepest position to the point at which the hook point stands above the needle centre.

Video: “Adjustment stroke of the loop_part_1.MTS”
“Adjustment stroke of the loop_part_2.MTS”

Fig. 5



Schlingenhub_21

3.3.1 Setting the loop stroke (Fig. 6)

A T T E N T I O N !

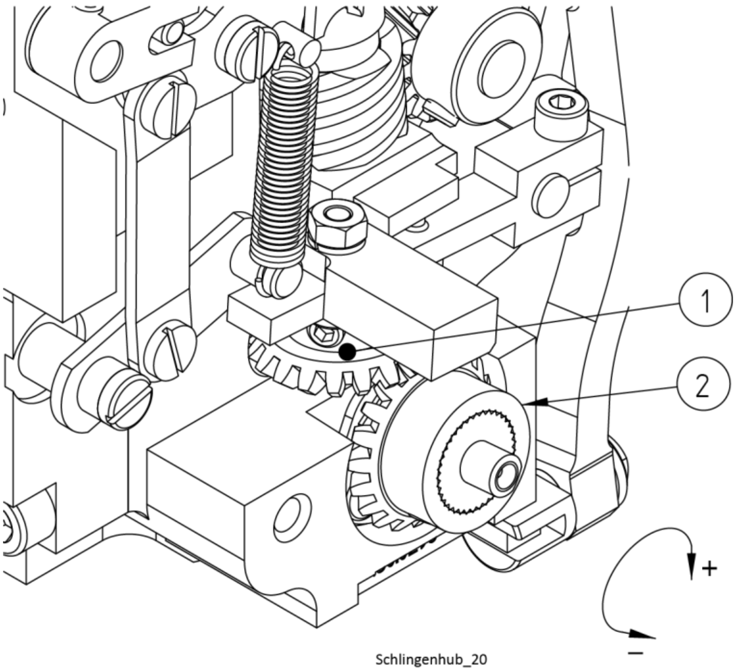
Switch off the machine electrically!

A loop stroke of 2,0 mm is standard. If it is ever necessary to adjust the loop stroke, loosen the two screws of the gear wheel (1) on the back of the head. By turning this gear wheel (2), the hook can be adjusted so that it picks up the thread loop earlier or later.

Turn to the left	-	Loop stroke becomes smaller
Turn to the right	+	Loop stroke becomes larger

When tightening the two screws, make sure that there is normal play between the bevel gear wheels. When changing the loop stroke, the needle lever must almost always be readjusted.

Fig. 6



3.4 Hook

3.4.1 Removal and fitting of the hook (Fig. 7 and Fig. 8)

A T T E N T I O N !

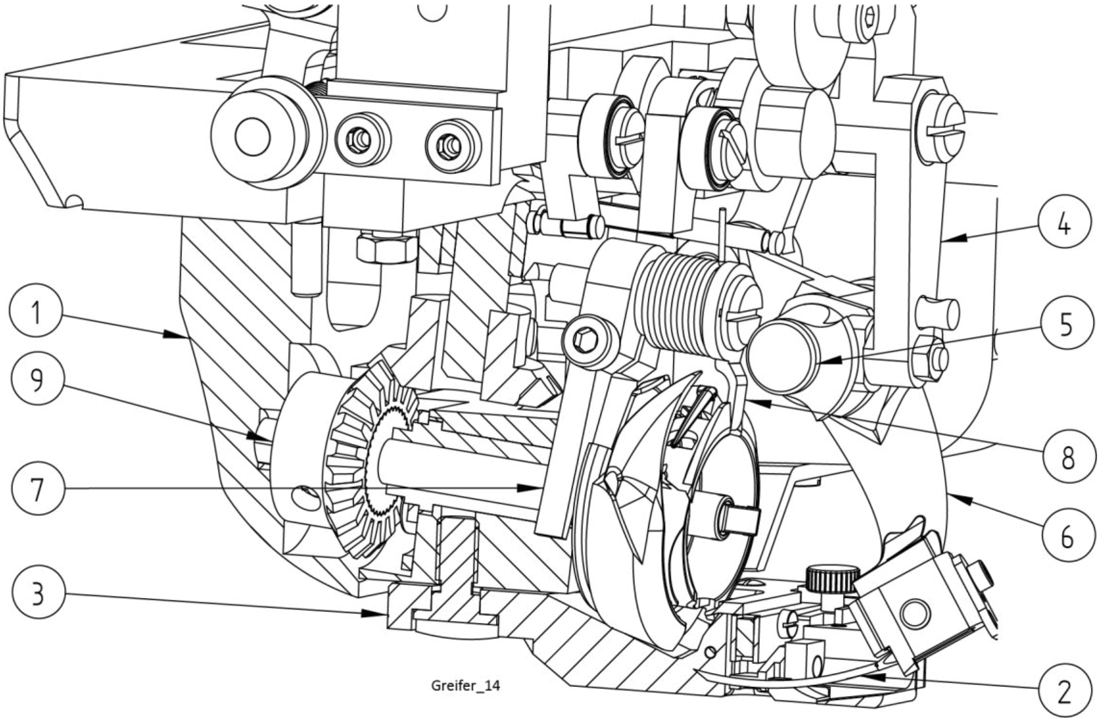
Disconnect machine from the mains!

Remove the following parts:

Cover (back of head) (1), needle (2), stitch plate (3), angle lever (4), pin (5), needle lever (6), lever (7) with looper stop (8) and bevel gear (9), then the hook can be pulled out to the front.

Videos: “Take out the hook_part_1.MTS”
“Take out the hook_part_2.MTS”

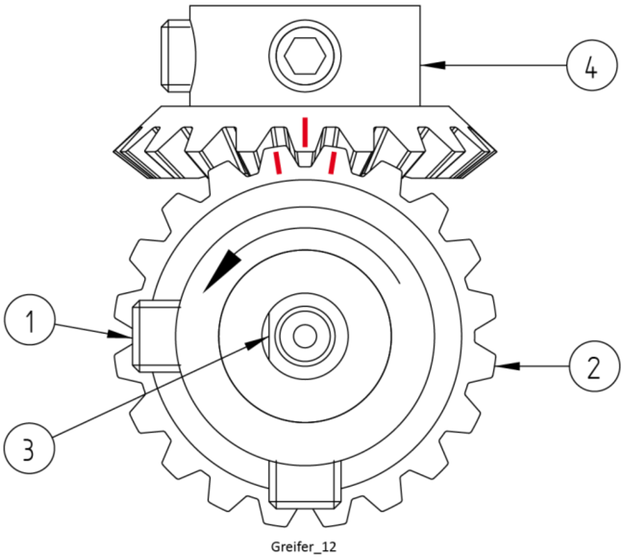
Fig. 7



Einbau in umgekehrter Reihenfolge.

Installing the hook: (Fig. 8)
The first screw (1) from the bevel gear wheel (2) in the machine's sense of rotation must be attached to the surface of the hook shaft (3).
In doing so, ensure:
Position the bevel gear wheel (4) with one red marking between the two red markings of bevel gear wheel (2).

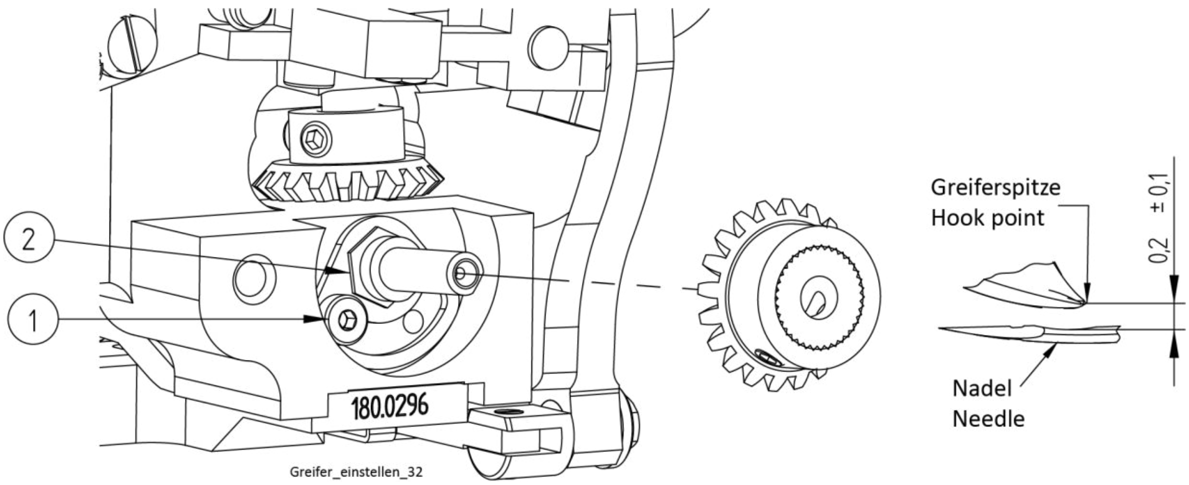
Fig. 8



3.4.2 Adjusting the hook to the needle (Fig. 9)

The gap between the hook tip and an 80/12 needle should be max. 0.2 ±0.1 mm.
If it is necessary to readjust the hook, loosen the cap screw (1) and turn the hexagon socket bush (2).

Fig. 9



Videos: “Adjustment distance Hooktip to needle_part_1.MTS”
“Adjustment distance Hooktip to needle_part_2.MTS”

3.4.3 Removing and fitting the bobbin case (Fig. 10)

If a thread is stuck between bobbin case and hook, the bobbin case must be removed, otherwise the machine may jam.

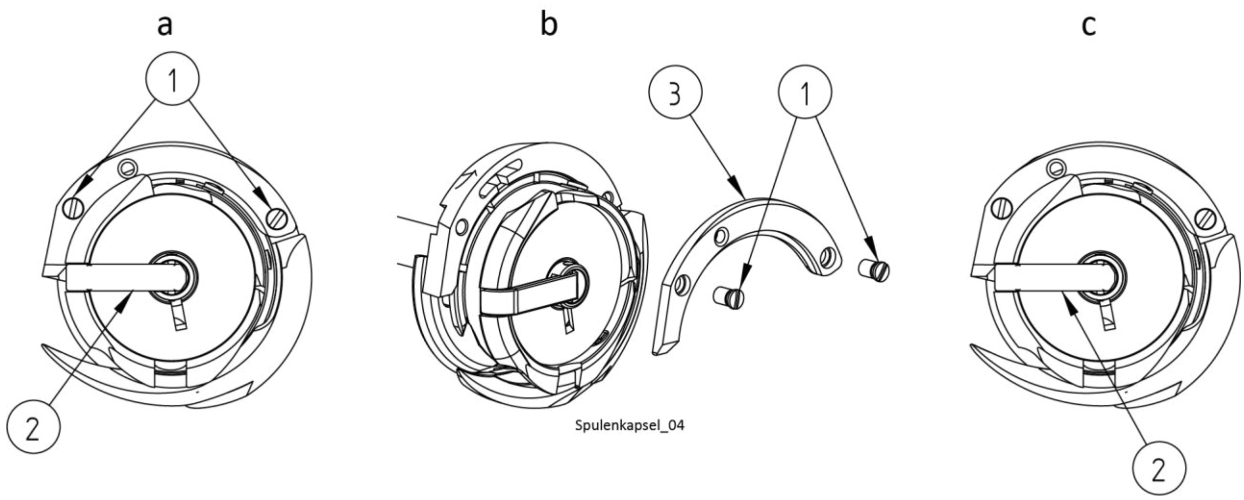
This requires a removal of the hook, see point "3.4.1 Removal and fitting of the hook (Fig. 7 and Fig. 8)".

After loosening the screws (1), the hook cover (3) can be removed. Then turn the bobbin case on the latch that holds the bobbin (2) to position C and pull it out of the hook.

When reinserting, make sure that the latch that holds the bobbin (2) points in the direction of the hook tip (C).

Video: “Insert new Bobbin in 710_part_1.MTS”

Fig. 10



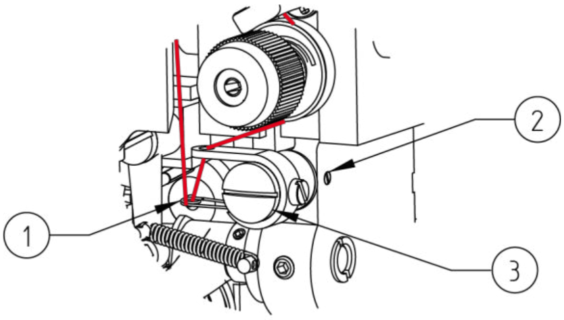
3.4.4 Setting the bobbin case opener

Videos: “Bobbin case opener_part_1.MTS”
“Bobbin case opener_part_2.MTS”
“Bobbin case opener_part_3.MTS”

3.4.5 Thread tension - needle thread (Fig. 11)

The range of movement of the thread tensioning spring (3) can be limited or extended by slackening the right threaded pin (1) and turning the empty bobbin (2). The tension of the thread tensioning spring can be increased or reduced by slackening the left threaded pin (1) and turning the empty pin (4). For this purpose, you turn the bolt with a screwdriver in the appropriate direction.

Fig. 11



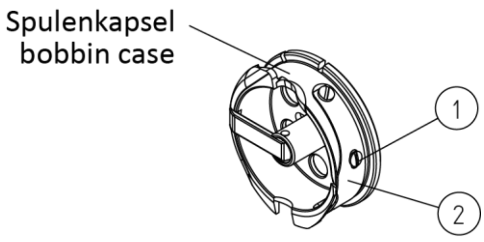
Fadenanzugsfeder_08

Videos: „Setting the jackspring_part_1.MTS“
„Setting the jackspring_part_2.MTS“

3.4.6 Thread tension - bobbin thread (Fig. 12)

The leaf spring (2) regulates the bobbin thread tension. By turning the flat-head screw with catch (1), the leaf spring must be adjusted in such a way that when the bobbin is inserted, and the thread is correctly pulled under the leaf spring and the bobbin case is released, the latter, together with the bobbin drops slowly down. A slight pull on the thread might be necessary.

Fig. 12



Spulenfaden_11

Videos: „Bobbin spring tension_part_1.MTS“
„Bobbin spring tension_part_2.MTS“

3.5 Feed movement

To achieve an initial stitch as even as possible it is also important to set an even, synchronised transport movement.

3.5.1 Feed dog (lower feed) (Fig. 13)

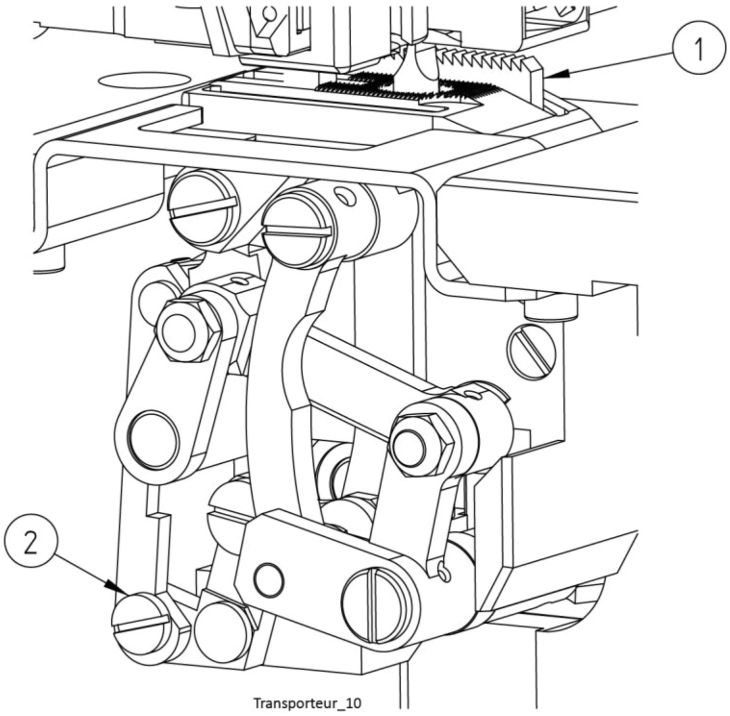
The machine is equipped ex works with a saw-toothed feed dog (1).

This can be adjusted by turning the bolt with eccentric (2) parallel to the stitch plate.

You will find Variable sewing tools under point 7 of the operating instructions.

Video: „Setting the feed dog parallel to stitchplate_part_1.MTS“

Fig. 13



3.5.2 Feed dog (upper feed)

The machine is equipped with a pyramid-toothed feed dog for lining hems.
For fabric hems the saw-toothed feed dog supplied with accessories should be fitted.

You will find Variable sewing tools under point 7 of the operating instructions.

Videos: „Timing of side feeddog_part_1.MTS“
„Timing of side feeddog_part_2.MTS“

3.5.3 Adjusting the feed movement (Fig. 14)

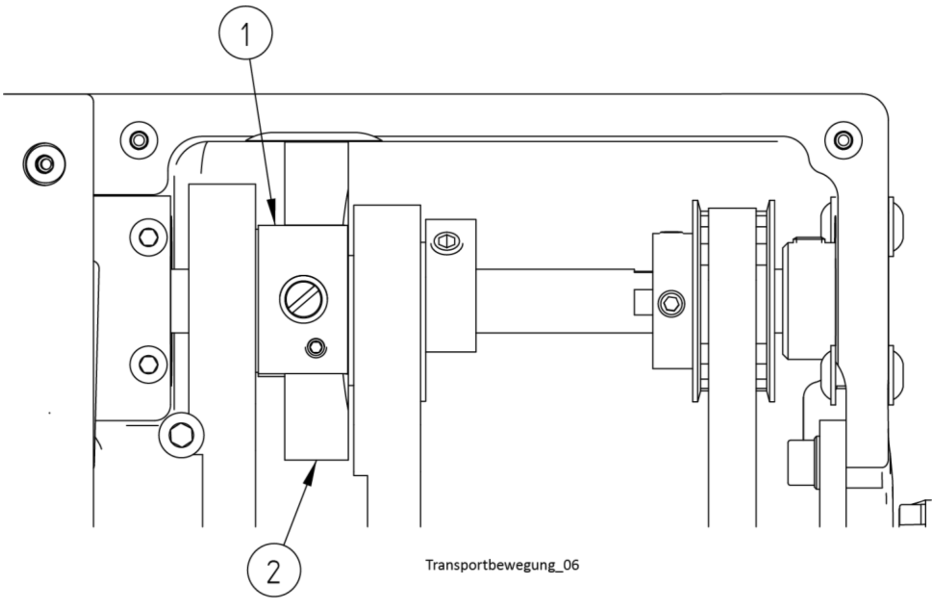
A T T E N T I O N !

Disconnect machine from the mains!

The eccentric (1) on the main screw must be adjusted in such a way that the feed starts when the needle point on its way back (by 6 mm feed) is 3 mm past the centre of the plunger.

With the largest stitch length the feed dog should still have approx. 4 mm air to the presser plate at its furthest back position. The main piece (2) is drilled on the main screw, that means that the first grub screw in rotary direction has a point.

Fig. 14



3.5.4 Adjusting the upper feed (Fig. 15)

A T T E N T I O N !

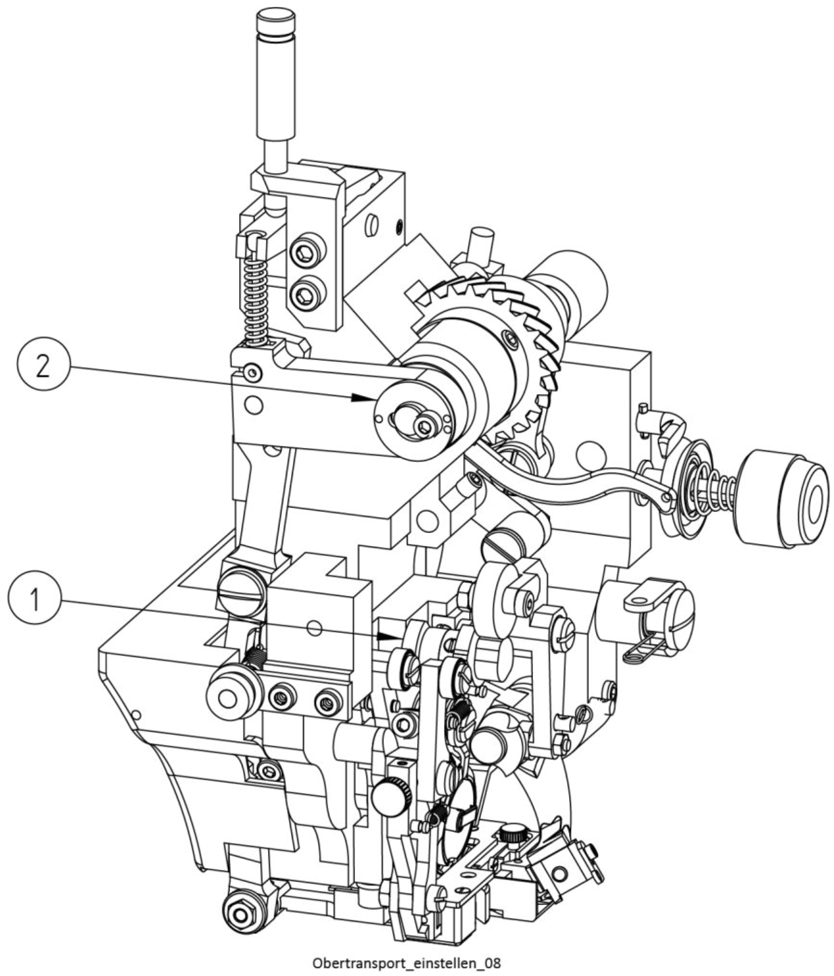
Disconnect machine from the mains!

With a transport path of 5.5 mm, measured at the lower and the upper feed dog, the lifting movement of the upper feed dog, controlled via the cam (1), must be adjusted in such a way that a function compliant sequence of the reverse points of the movement direction is ensured. The upper transport starts synchronized with the lower transport.

Depending on whether you work with short or long stitch length, the position on eccentric bush (2) • = 2-5 mm stitch length or •• position = 4 - 7 mm stitch length can be adjusted.

Videos: „Adjustment of side feeddog_part_1.MTS“
„Adjustment of side feeddog_part_2.MTS“

Fig. 15



3.6 Side presser

The upper side presser fixes the sewing material during the penetration phase at the side stitch plate web (fabric support surface).

3.6.1 Adjusting the side presser (Fig. 16)

A T T E N T I O N !

Disconnect machine from the mains!

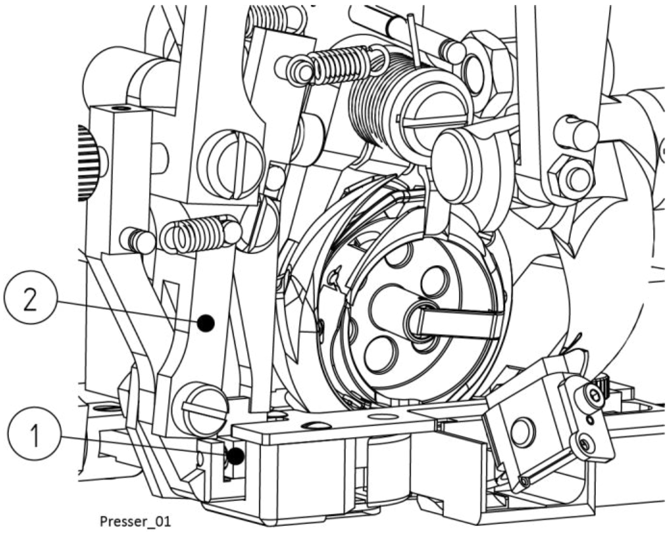
The upper side presser (1) should open 4.5 mm during transport.

Please pay attention to this measurement (4.5 mm), otherwise the Bowden cable get damaged.

When the lever for the plunger (2) comes into contact with the stitch plate, the upper lateral presser (1) rests against the fabric contact surface of the stitch plate.

Videos: „Control of side presser and side feeddog_part_1.MTS"
„Setting of the side plunger_part_1.MTS"
„Setting of the side plunger_part_2.MTS"

Fig. 16



3.7 Side plunger

The side plunger presses the upright inserted sewing material (fabric hem or lining) from the left into the stitch plate opening so that the needle can pierce the sewing material at the left penetration.

3.7.1 Adjusting the side plunger (Fig. 17)

> **A T T E N T I O N !**
>
> Disconnect machine from the mains!

The upper dead point of the cam (1) for the side plunger (2) responds when the needle point (left needle lever position) is 7 – 8 mm before the centre of the side plunger. It opens by 4.5 mm, measured to the vertical fabric support surface of the stitch plate.

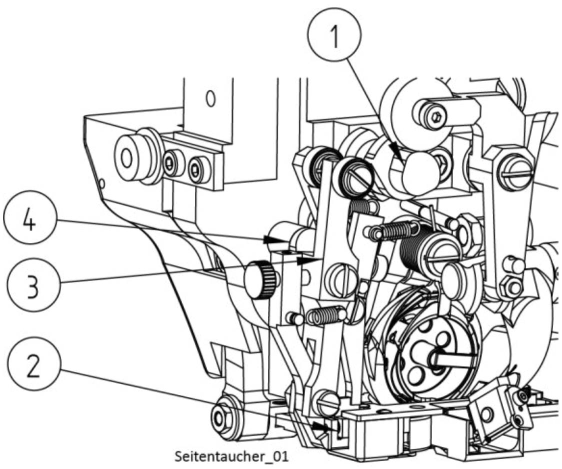
When the lever (3) for the side plunger (2) is in contact with the stitch plate and the upper dead point of the cam (1) for the side plunger (2) responds, then the crankshaft (4) has moved by 0.05 +0.05 measured over the thread M5.

For sensitive sewing material, we recommend a rounded side-plunger.

You will find Optional extras under point 8 of the operating instructions.

Videos: „Control of side presser and side feeddog_part_1.MTS"
„Setting of the side plunger_part_1.MTS"
„Setting of the side plunger_part_2.MTS"

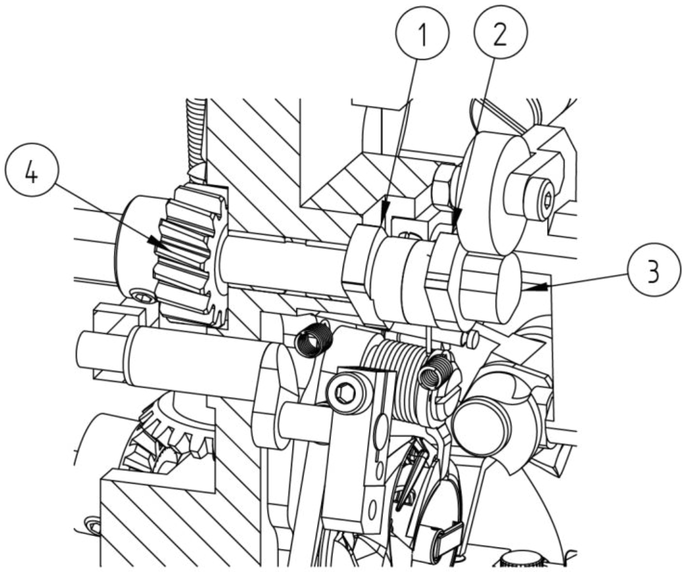
Fig. 17



3.7.2 Cams (Fig. 18)

The cams (1) and (2) are drilled, that means that every first grub screw in rotary direction has a point.
With cam (3) the gear (4) at the back of the head is drilled.

Fig. 18



Nocken_01

3.7.3 Adjusting the thread tension lifting

The lifting of the needle thread tension must respond when the feed dog or the presser plate is vented approx. 4 mm by activating the knee lever.

3.8 Presser plate

The presser plate presses the sewing material from below onto the stitch plate during initial stitch. During transport the presser plate should lift from the stitch plate when processing thick sewing material by 5 mm, with thin to medium sewing material by 2.5 mm.

3.8.1 Adjusting the presser plate (Fig. 19)

A T T E N T I O N !

Disconnect machine from the mains!

With a presser plate lift of 5 mm (basic setting), 2 mm loop stroke and the largest stitch length, the clamping plate lifts form the stitch plate when the needle point is 10 mm before the centre of the plunger after leaving its lower dead point.

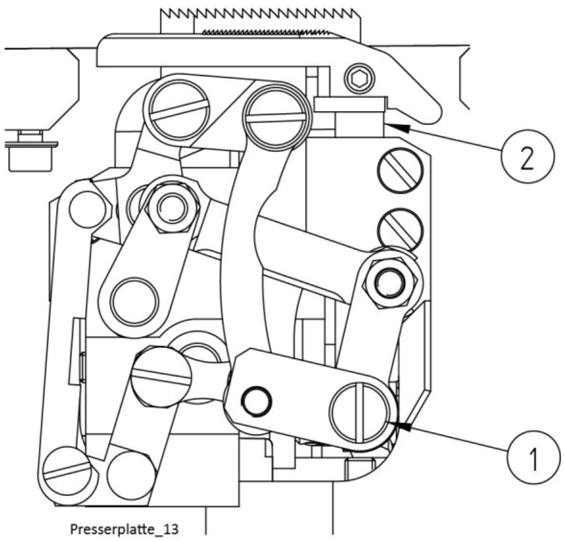
The presser plate is in contact with the stitch plate, when the needle point is 4 mm before the centre of the plunger.

By releasing the counter sunk screw (1) and by sliding the crank (2), the presser plate lift can be reduced or enlarged. Afterwards please retighten the counter sunk screw (1).

When venting the distance between presser plate and stitch plate must be 11 mm.

In this vented condition the machine must be able to be turned through easily, without any parts colliding or locking.

Fig. 19



3.9 Plunger

The plunger presses the sewing material from below into the stitch plate opening, so that the needle can initial stitch the sewing material at the right penetration.

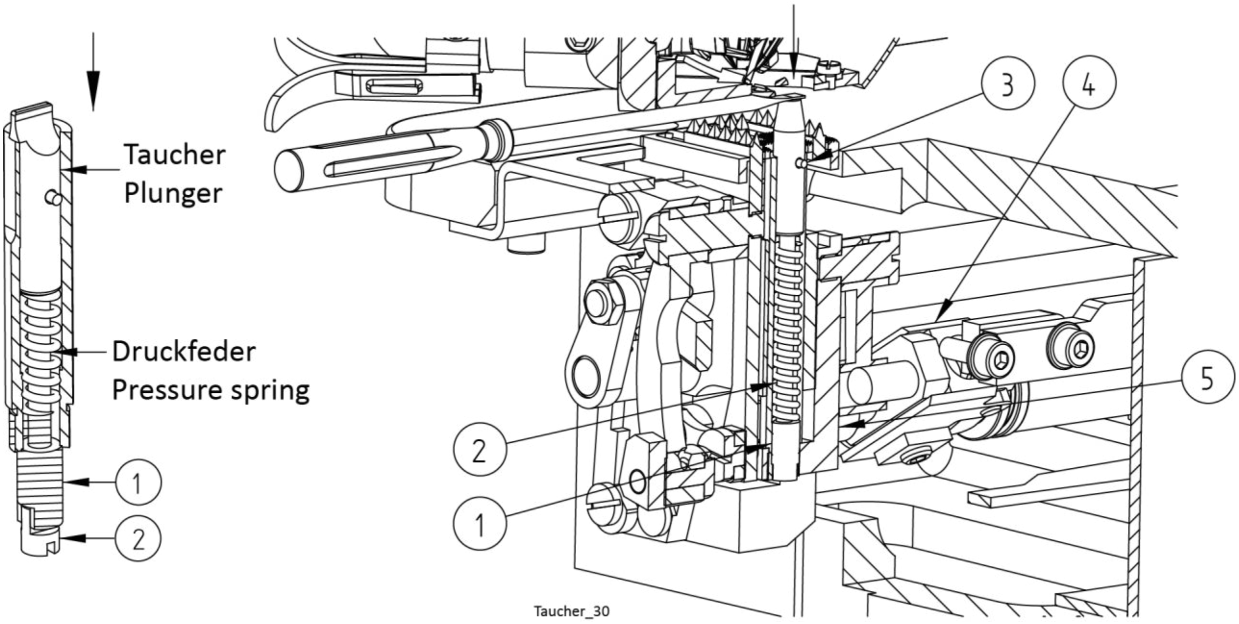
3.9.1 Removing the plunger (Fig. 20)

A T T E N T I O N !

Disconnect machine from the mains!

- Unscrew the plunger motion screw (1) with the plunger set screw (2) until it is flush with the bush for plunger.
  This relaxes the plunger spring.
- Press the plunger down with a screwdriver or similar until the face of the plunger set screw (2) protrudes from the plunger motion screw (1).
- Unscrew the plunger set screw (2).
- Remove stitch plate, see point "3.1.1 Removing the stitch plate".
- Pull plunger out from the top.

Fig. 20



3.9.2 Installation, change and adjustment of the plunger (Fig. 20, Fig. 21 and Fig. 22)

Fitting takes place in reverse order.
However, the following points must be observed for precise adjustment:

- The cylinder pin (3) must engage in the groove of the bush for plunger.
- Press the "P" button on the operating control
- Adjust the stitch depth to "0" with the "+/-" button
- Turn the plunger set screw (2) into the plunger so far that when it engages its two-edged surface in the groove of the plunger motion screw (1), the needle is lifted 0.1 +0.1 mm is lifted from the plunger.
- The plunger reaches its highest position when the tip of the needle is approx. 2 mm towards the middle of the plunger.
  The plunger remains still until the needle point is 2 mm towards the centre of the plunger.
  This value is set by the position of the carriage bracket (4), making sure that no double stroke occurs, i.e. the carriage bracket (4) must not move beyond the top dead centre (±0.01 mm Tol.).
- Factory setting of the plunger pressure:
  plunger motion screw (1) flush with plunger guide (5).
  Turning the plunger set screw (2) including the plunger motion screw (1) to the right, more plunger pressure, turn to the left, less plunger pressure.
- Then set the stitch depth again and press the "P" button to exit editing mode.

Fig. 21

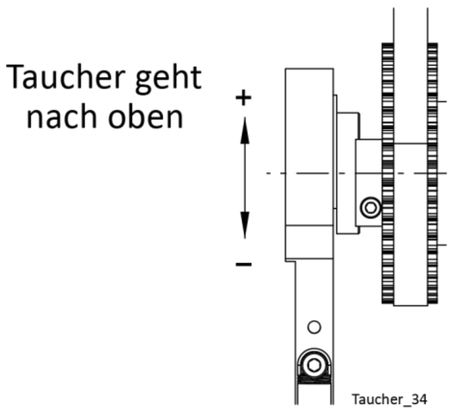
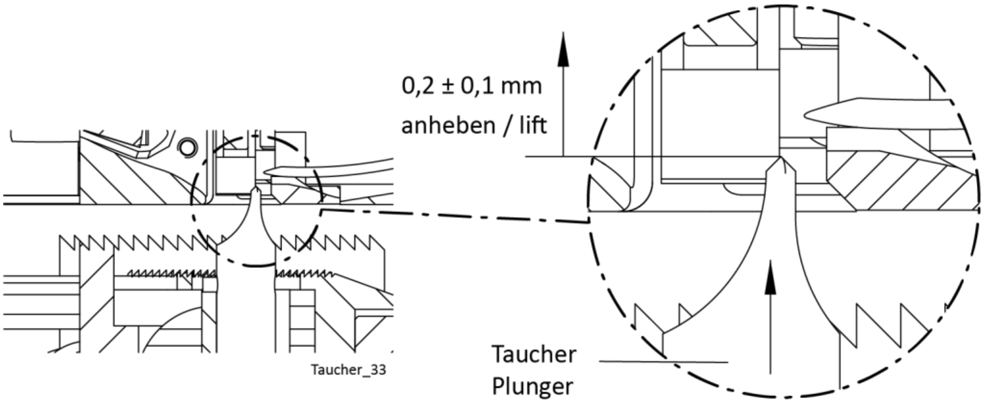


Fig. 22



The plunger should lift the needle 0.2 ±0.1
at stitch depth 0.

3.10 Spot tack

A T T E N T I O N !

Disconnect machine from the mains!

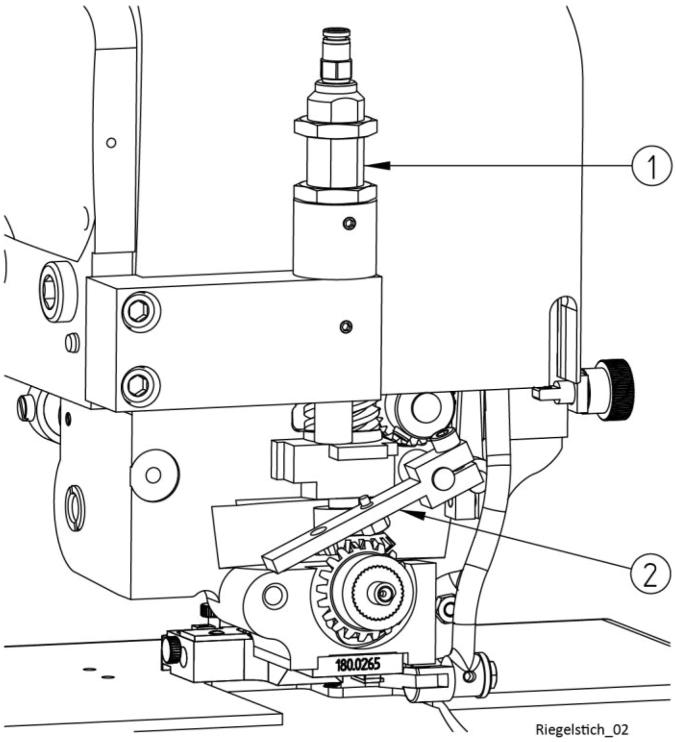
C A U T I O N ! Danger of injury!

Danger of finger bruises in the area of pneumatically operated parts.

The pneumatic cylinder (1) is activated during the point tack function and pushes the side transport away by lever (2).

The side transport needs to be set so that it does not contact the material during the point tack.

Fig. 23



3.11 Pneumatic lifting

C A U T I O N ! Danger of injury!

Danger of finger bruises in the area of pneumatically operated parts.

3.11.1 Setting the lifting

Reduce the lifting speed at the one-way restrictor so that there is no hard noise when the plunger, the presser plate and the feed is lowered.

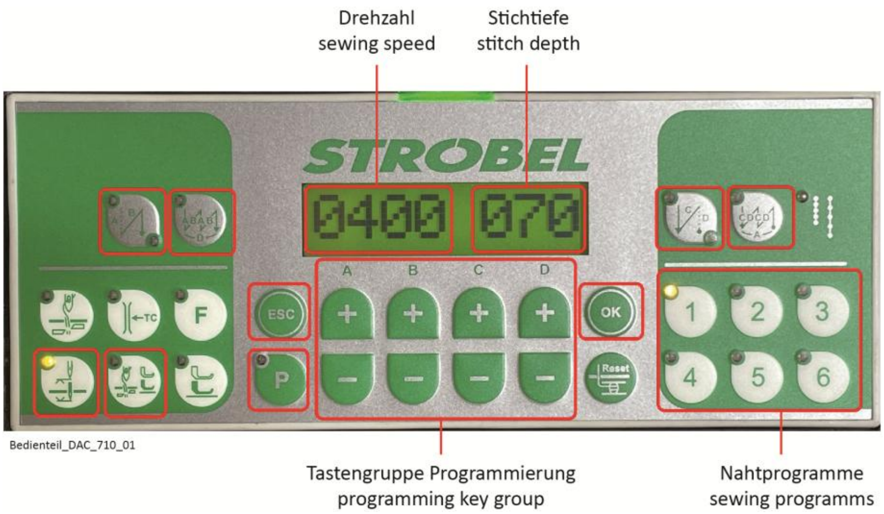
3.12 Sewing drive

The machine is equipped with a sewing drive.

Please note the instructions available online. There you find notes and the instructions for programming the control including the motor speed adjustments.

4 Operating control, general

Fig. 24



Button	Function
	Backtack at seam start
	Backtack supression
	Backtack at seam end
	Half stitch
	Confirmation button
	Call the teach-in mode/Exit parameter input
	Save the programming (teach-in) and exit
	Foot lift remains open after pedal position -1
	Needle up- down position

4.1.1 Basic information

“P" button:

- Pressing the "P" button takes you to programming mode (teach-in) and the first value starts to flash on the display.
- The values for the plunger height and machine speed can be set using the A to D +/- buttons.
- Sewing can/must also be carried out in teach-in mode, as the corresponding stitch depth must be determined.
- The "P" button is also used to exit the parameter setting.

OK" button:

- Pressing the "OK" button confirms the change and takes you to the next input field.
- The values for the plunger height and machine speed can be set using the A to D +/- buttons.

ESC" button:

- The "ESC" button is used to exit teach-in mode and the values are saved in the corresponding sewing program.

Buttons "1-6":

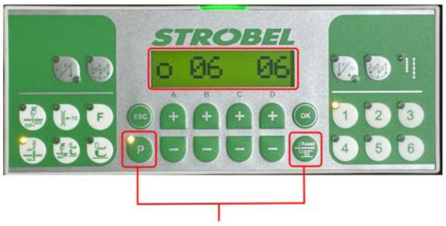
- The Class 710 has 6 sewing programs that can be individually assigned a plunger value and a machine speed.
  During sewing, you only have to stop briefly and you can switch to any sewing program.

Stitch depth:

- Stitch depth is the distance between the highest plunger position and the outer radius of the needle. The plunger presses the fabric into the stitch plate opening from below so that the needle penetrates the fabric layers at the desired depth.
- The stitch depth can be set using the "+/-" buttons C and D in the programming button group block.
- in "1" increments (=0.01 mm) Button group D.
- In "10" increments (=0.10 mm) Button group C.
- The setting range of the plunger is from 0 - 254 = 0 - 2.54 mm.
  - "+" = plunger moves down = needle penetrates less deeply
  - "-" = plunger moves up = needle penetrates deeper
  - Basically the following applies: (Fig. 14)
    a) Small stitch depth - thin material / 0 = needle touches the plunger
    b) Large stitch depth - thick material / 254 = The plunger has 2.54 mm from the needle
- If the stitch depth is too shallow or too deep, skips or punctures may occur.

4.2 Working with the OP1000 control panel

4.3 Calling up and changing parameters



- -Press and hold the "**P**" and "**Reset**" button and switch on the control unit
- **o 06 06** appears on the display.

- Press the "**A+"** button and **t 00 00** appears on the display
- The "t" area is the technician level for setting the parameters.

The parameters can be selected with the B and D keypads and the +/- buttons and called up with the "OK" button.

Depending on how many digits the value in the parameter has, the value can then be changed using the B, C, D keypad and the +/- buttons.

Press the "OK" button again to save the value and return to parameter selection.

When you have finished entering the parameters, you can exit the parameter area by pressing the "P" button and return to the sewing mode with speed and stitch depth display.

Relevant parameters:

1.2 Technician level

E	C	P	Min	Max	Preset value	Unit	Description
t	08	05	0	1	0	-	Direction of rotation of motor 0 = Left; 1 = Right
t	08	10	-	-	-	-	Reference position
t	08	12	0	359	15	°	Needle in the low position (bottom dead center) (position 1)
t	08	13	0	359	355	°	Thread lever at top dead center (position 2)

Error messages:

2 Error, warning and information messages

Code	Type	Possible cause	Remedial action
8406	Error	Checksum error	- Software update - Replace the control
8501	Error	Software protection	- the DA tool must always be used for software updates
9400	Error	Wrong machine ID	- check whether machine ID is connected - switch machine ID
9401	Error	Plunger PCB did not start properly. No response of PCB after the programmed time (t 40 00)	- check/switch Plunger System

4.4 Positions and attitudes

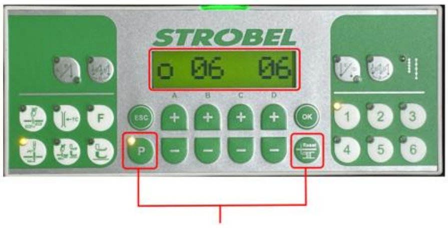
C A U T I O N ! R i s k o f i n j u r y !

Risk of fingers being crushed and needle punctures due to clothing or hair being pulled in!

When checking the positions with the machine switched on, keep fingers and hands away from moving parts.

Videos: “Set Ref. Pos_Part_1”
“Set Ref. Pos_Part_2”
“Needle Positions 1 and 2”

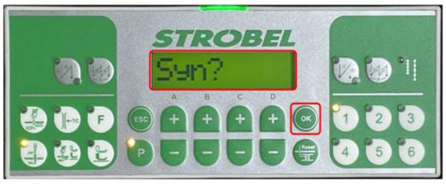
4.4.1 Setting the reference position



- Press and hold the "P" and "Reset" button and switch on the control unit
- o 06 06 appears on the display.

- Press the "A+" button and t 00 00 appears in the display
- The "t" range is the technician level for setting the parameters
- Use the "B" +/- buttons to call up the range 08 for the motor.
- Use the "D" +/- buttons to call up parameter 10 for setting the reference position.

Confirm with the "OK" button and Syn? appears in the display.



As soon as you turn the handwheel in the machine's direction of rotation, "Ref. Pos?" appears on the display.

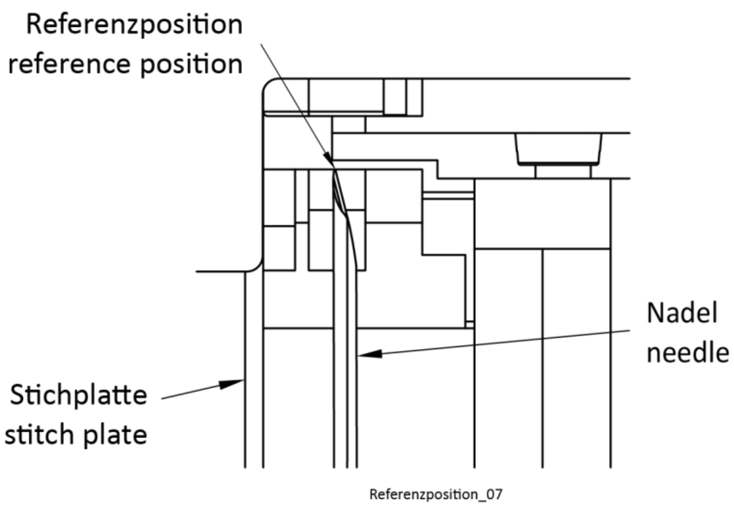
Now turn the handwheel in the machine's direction of rotation until the needle tip reaches the edge of the right needle channel on the needle glide plate in the downward movement.

Then press the "OK" button and the "P" button to exit and save the reference position.

In Fig. 25 you can see the reference position in the graphic illustration.

Please note! The needle performs a pendulum movement and there is a left and right insertion. The right needle channel of the needle glide plate is used for the reference position.

Fig. 25

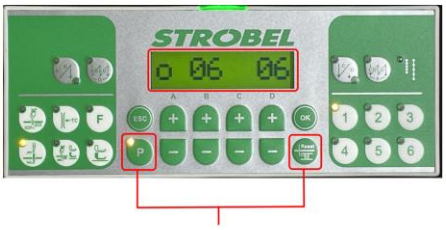


4.4.2 Checking / adjusting the needle positions

Press the "P" and "Reset" buttons simultaneously.

If you have previously set the reference position, you will return to parameter t 08 10 or the last parameter you called up will appear.

Or



If this is the first setting after switching on the machine and you press the "P" and "Reset" buttons simultaneously, the display shows .

Use the "B" +/- buttons to call up the range 08 for the motor.
Use the "D" +/- buttons to call up parameter 12 (position 1).

The value 15 is already preset and is your reference value if you have changed the position.

If you turn the handwheel in the direction of machine rotation, the value changes or

If you press the +/- buttons in the B, C, D button block, you can change the value.

Confirm with the "OK" button, the value is saved and you return to t 08 12.

Use the "B" +/- buttons to call up range 08 for the motor.
Use the "D" +/- buttons to call up parameter 13 (position 2).

The value 355 is already preset and is your reference value if you have changed the position.

If you turn the handwheel in the direction of machine rotation, the value changes or

If you press the +/- buttons in the B, C, D keypad, you can change the value.

Confirm with the "OK" button, the value is saved and you return to t 08 13.

Press the "P" button to exit the parameter area and you can start sewing.

<u>**Summary of parameters:**</u>

Reference position:	t 08 10 / Needle tip in downward movement to penetration. Tip end of needle sliding plate Fig. 25
Position 1:	t 08 12 = 15
Position 2:	t 08 13 = 355

A T T E N T I O N !

These values for position 1 and position 2 should not be changed, as these are the factory settings!

4.4.3 Switching on and changing the number of backtack stitches

Switching on start backtack: Light on

Switch off start backtack: Light off

Use button "B" +/- to set the number of stitches.

Switching on end backtack: Light on
Switch off end backtack: Light off

Use button "C" +/- to set the number of stitches.

Once you have switched on the backtack and set the number of stitches, you can press the "OK" button and you will return to the basic display.

4.5 Sewing light

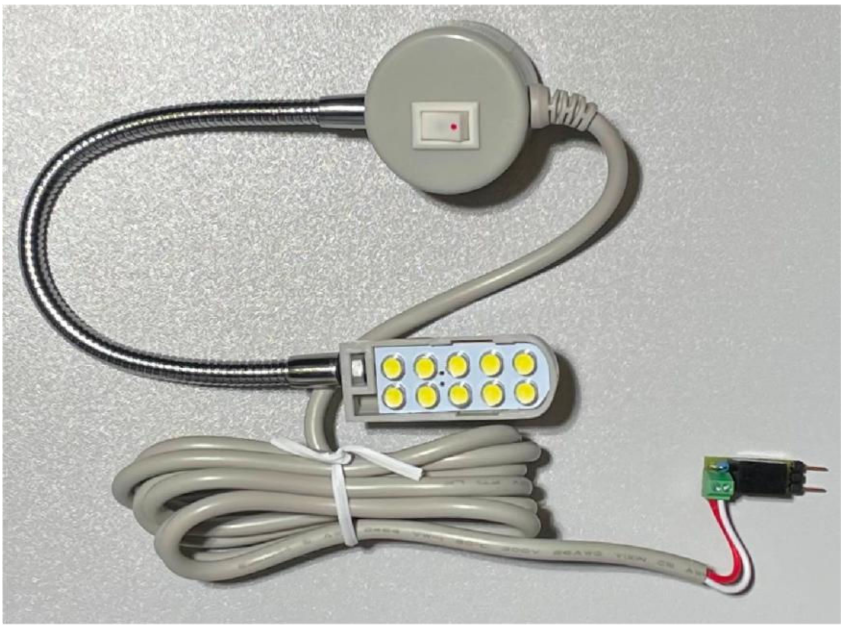
4.5.1 General notes

A T T E N T I O N !

Switch off the machine electrically!

If the control box is switched off, the sewing light stays on for at least 10 more minutes.

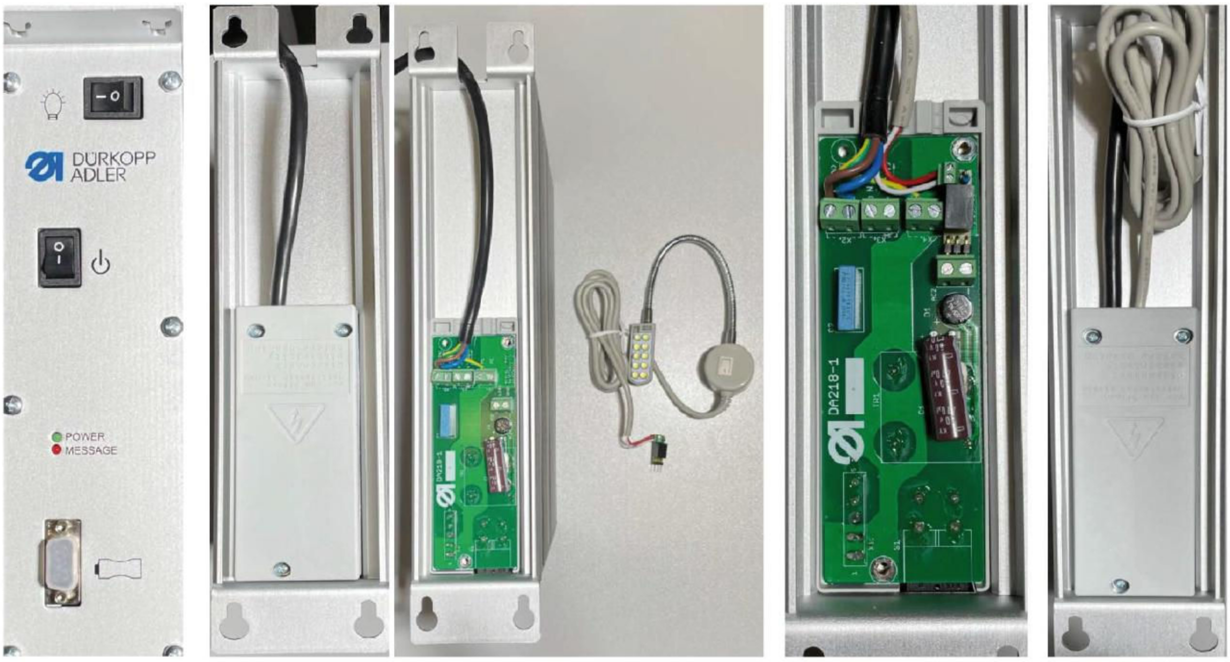
Fig. 26



Nähleuchte_03

Fig. 27

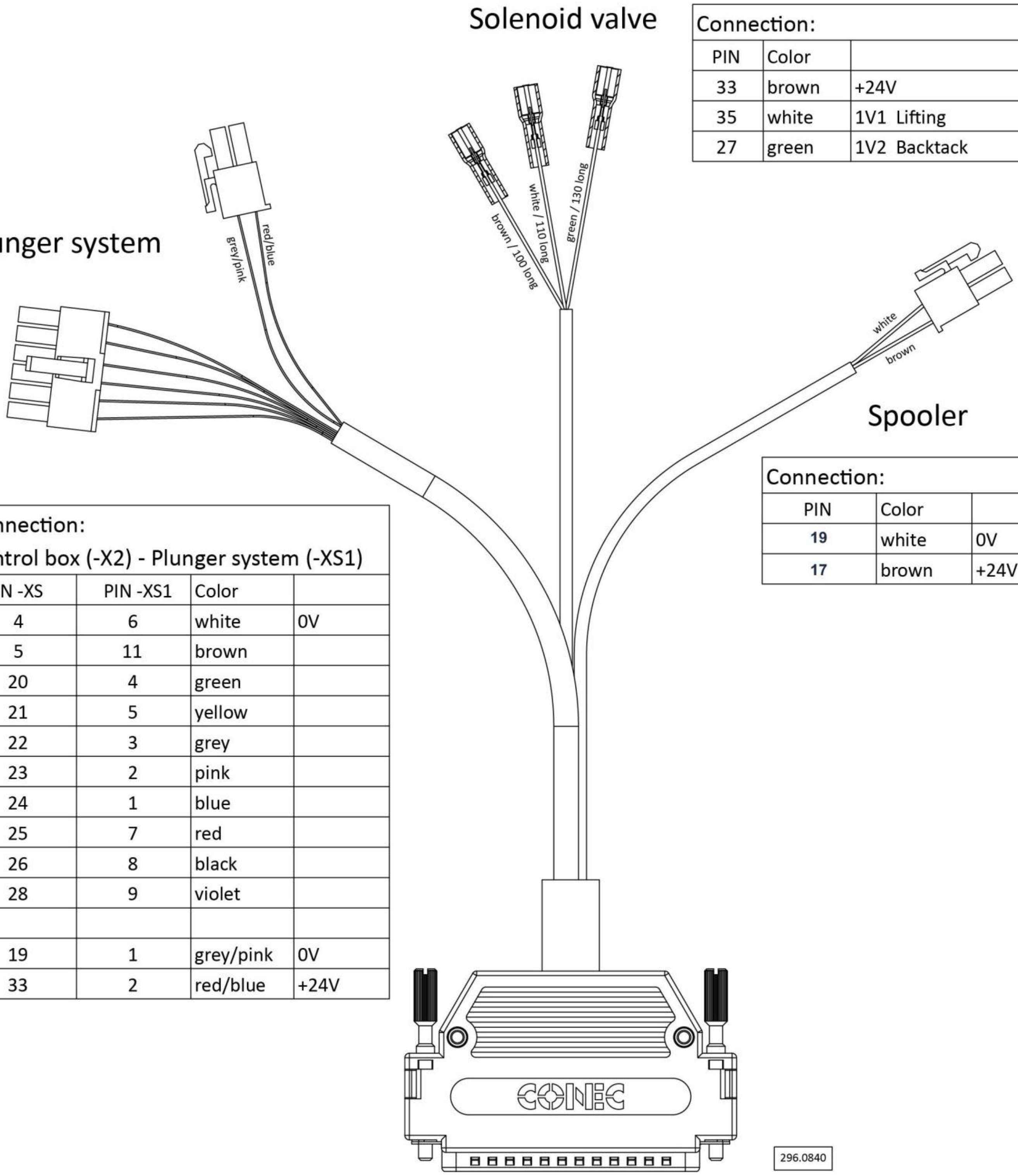
1. 2. 3. 4. 5.



Nähleuchte_04

5 Connecting cable

5.1 Connecting cable 296.0840



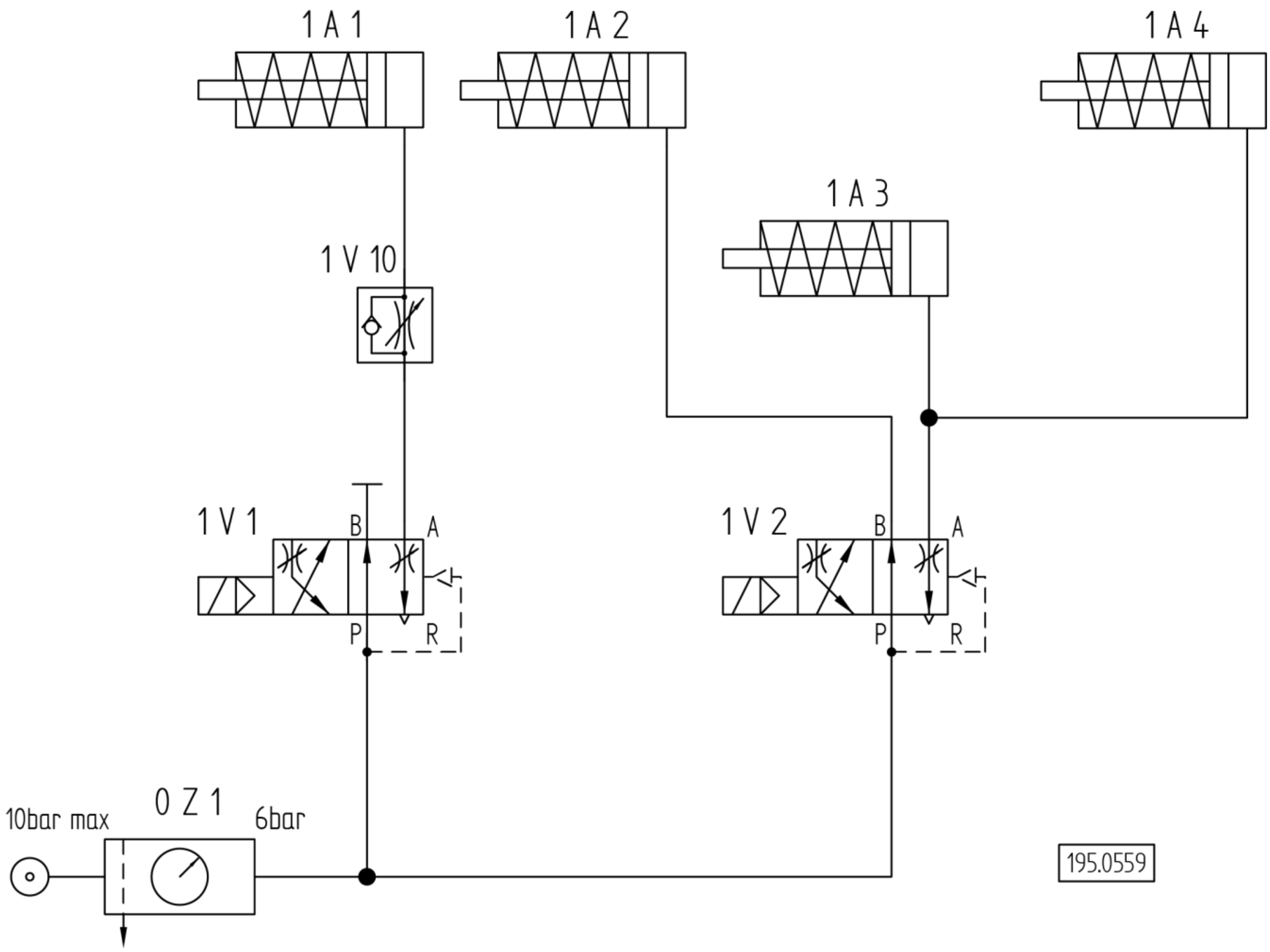
Connection:		
PIN	Color	
33	brown	+24V
35	white	1V1 Lifting
27	green	1V2 Backtack

Connection:		
PIN	Color	
19	white	0V
17	brown	+24V

Connection: Control box (-X2) - Plunger system (-XS1)			
PIN -XS	PIN -XS1	Color	
4	6	white	0V
5	11	brown	
20	4	green	
21	5	yellow	
22	3	grey	
23	2	pink	
24	1	blue	
25	7	red	
26	8	black	
28	9	violet	
19	1	grey/pink	0V
33	2	red/blue	+24V

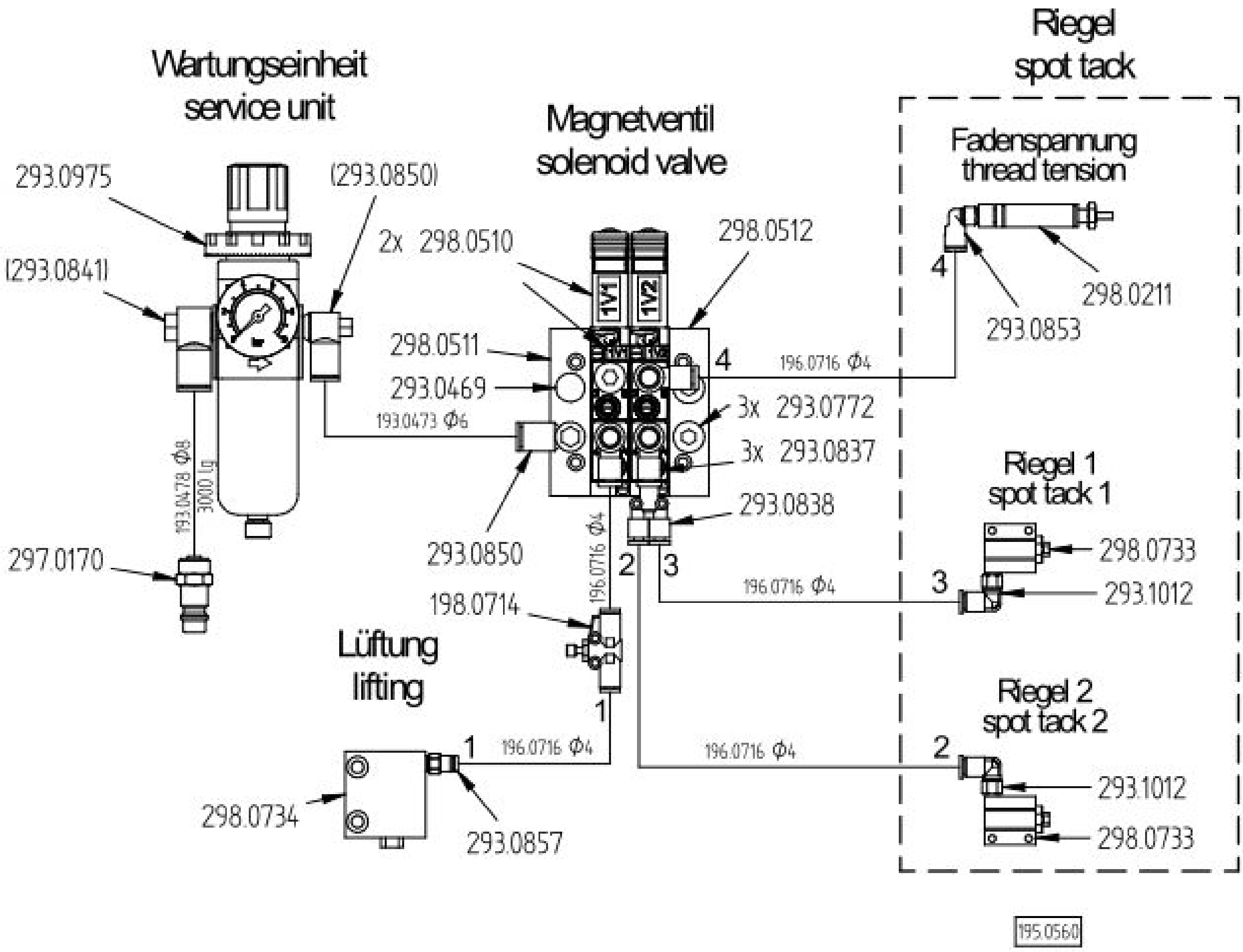
6 Circuit diagrams

6.1 Pneumatic circuit diagram sewing machine connection



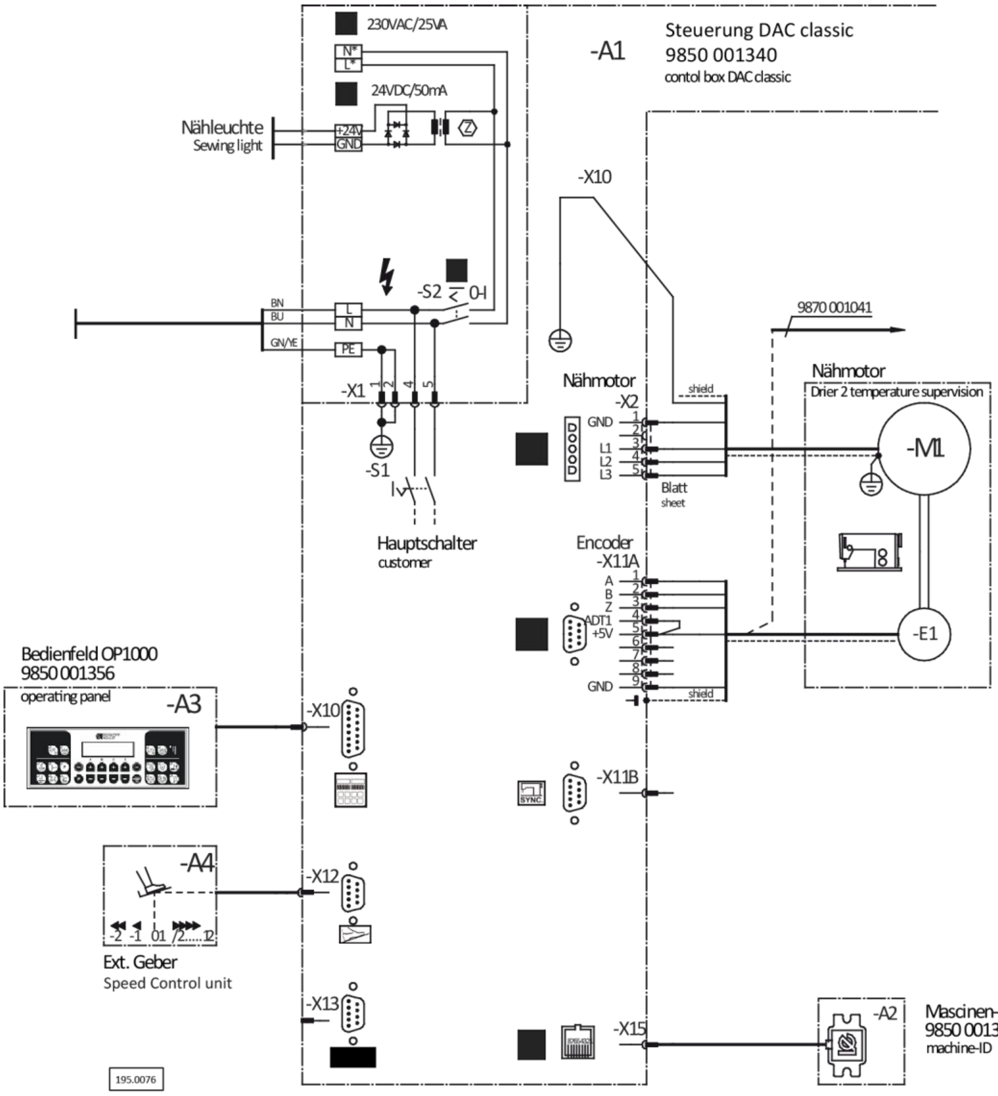
0 Z 1	Wartungseinheit	Service unit
1 V 1	4/2-Magnetventil "Lüftung"	3/2-solenoid-way valve "lifting"
1 V 2	4/2-Magnetventil "Riegel"	3/2-solenoid-way valve "spot tack"
1 V 10	Drosselrückschlagventil "Lüftung"	throttle non-return valve "lifting"
1 A 1	Zylinder "Lüftung"	Cylinder "lifting"
1 A 2	Zylinder "Fadenspannung Riegel"	Cylinder "thread tension spot tack"
1 A 3	Zylinder "Seitentransport"	Cylinder "lateral feed"
1 A 4	Zylinder "Riegel"	Cylinder "spot tack"

6.2 Pneumatic construction wiring diagram sewing machine connection

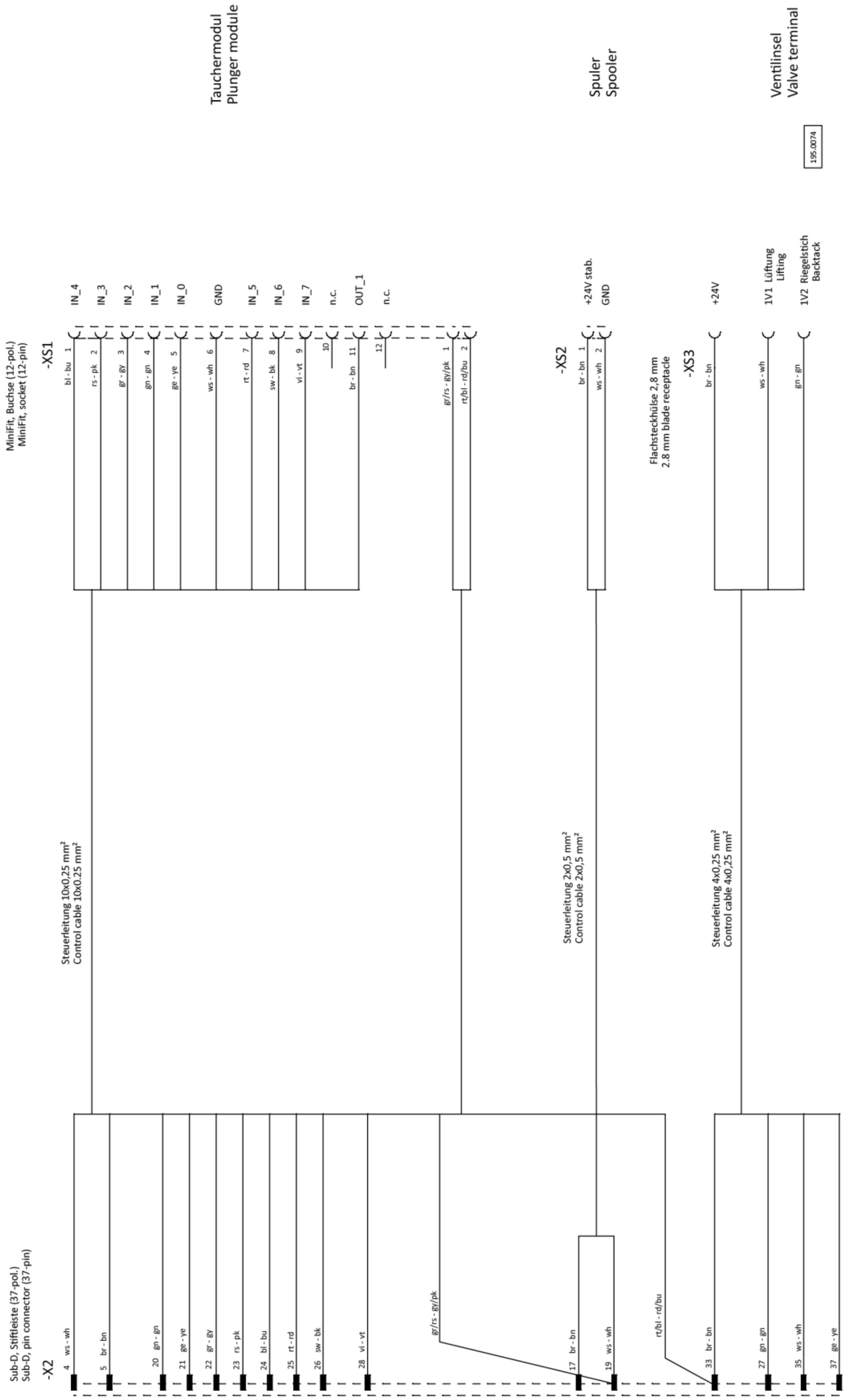


293.0469	1	Schalldämpfer R 1/8	silencer R 1/8
193.0473	1000	PA-Schlauch Ø6	PA hose Ø6
193.0478	3000	PA-Schlauch Ø8	PA hose Ø8
293.0772	3	Verschlußschraube R 1/8	lock screw R 1/8
293.0837	3	L-Einschraubanschluss R 1/8-4	L-threaded connection R 1/8-4
293.0838	1	Y-Steckanschluß Ø4	Y-plug connection Ø4
293.0850	2	L-Einschraubanschluss R 1/8-6	L-threaded connection R 1/8-6
293.0853	1	L-Einschraubanschluss M5-4	L-threaded connection M5-4
293.0975	1	Wartungseinheit	service unit
196.0716	9005	PA-Schlauch Ø4	PA hose Ø4
297.0170	1	Schnellverschlusskupplung Ø8	coupling Ø8
298.0211	1	Miniatur-Zylinder	miniature cylinder
298.0510	2	4/2-Wege Magnetventil	4/2-way-solenoid valve
298.0511	1	Eingangsmodul G1/8 links	input module G1/8 left
298.0512	1	Eingangsmodul G1/8 rechts	input modul G1/8 right
298.0734	1	Miniaturzylinder CDUJB20-15D	miniature cylinder CDUJB20-15D
293.0857	1	G-Einschraubanschluss M5-4	threaded connection M5-4
293.1012	2	L-Steckanschluß PU4 M3	L-plug connection PU4 M3
298.0733	2	Miniatur-Zylinder CUJB10-10S	miniature cylinder CUJB10-10S
198.0714	1	Drosselrückschlagventil	throttle non-return valve

6.3 Electric wiring diagram connection solenoid valve and spooler



6.4 Electric connection diagram



Und wir können noch mehr für Sie tun!

Unser Lieferprogramm bietet für jede Branche und jegliche Anforderung genau die richtige Problemlösung.

And we can do a lot more for you!

Our range offers the correct problem solution for every branch and for all requirements.

Für die Bekleidungsindustrie:

Ein- und Zweifaden-Hochleistungs-Saummaschinen

Doppelblindstich-Saummaschinen

Zweifaden-Blindstich-Staffiermaschinen

Roll- und Flachpikiermaschinen

Pikier-Automat

und

weitere Spezial-Nähmaschinen

For the clothing industry:

Single and two thread high performance hemming machines

Bluff edge hemming machines

Two thread blind stitch felling machines

Roll and flat padding machines

Automatic lapel padding machine

and other special sewing machines

Für die Schuhverarbeitung:

Einfaden-Überwendlichmaschinen mit und ohne Differentialtransport

For the shoe industry:

Single-thread overseaming machines with and without differential feed

Für Kürschnereien und Pelzkonfektion:

Pelzschnellnäher

For the fur industry:

High-speed fur sewing machines

Für Heimtextilien:

Ein- und Zweifaden-Blindstichmaschinen

For the home textiles industry:

Single and two thread blind stitch machines

Für die Polsterverarbeitung:

Ein- und Zweifaden-Überwendlichmaschinen

Ein- und Zweifaden-Blindstichmaschinen

For the upholstery industry:

Single and two thread overseaming machines

Single and two thread blind stitch machines

Für die Konfektion technischer Textilien:

Ein- und Zweifaden-Überwendlichmaschinen

For the processing of technical textiles:

Single and two thread overseaming machines

Noch Fragen?

Dann rufen Sie uns an, schreiben Sie uns oder kommen Sie einfach bei uns vorbei.
Sie können jederzeit weitere Informationen über unsere Produkte anfodern oder die Strobel-Nähmaschinen in unserem Ausstellungsraum live erleben. Wir freuen uns auf Sie!

Any further questions?

Then phone, write or simply come and see us. You can have further information about our products at any time, or experience the Strobel machines live in our show room. We're looking forward to meeting you!

STROBEL
Spezialmaschinen GmbH

Postfach 1242
82168 Puchheim

Boschstraße 16
82178 Puchheim
DEUTSCHLAND

www.strobel.biz
Telefon: +49 89 80096-0
Telefax: +49 89 80096-190