For the professional user

Operating Instructions

Für den professionellen Anwender

Betriebsanleitung

Class: **218D-TP-R**
Klasse:

Model: **4**
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

Garantiekarte/Warranty Sheet

STROBEL
Boschstraße 16
D-82178 Puchheim
Tel.: 089/80096-0
Fax: 089/80096-190
info@strobel.biz

Maschinenklasse/Machine class: _____

Serien-Nr./Serial No: _____

Auftrags-Nr./Order Confirmation No: _____

Lieferdatum/Delivery Date: _____

Rechnungs-Nr./Invoice No: _____

Rechnungsdatum/Invoice Date: _____

Beanstandung/Complaint: _____

_____

_____

_____

_____

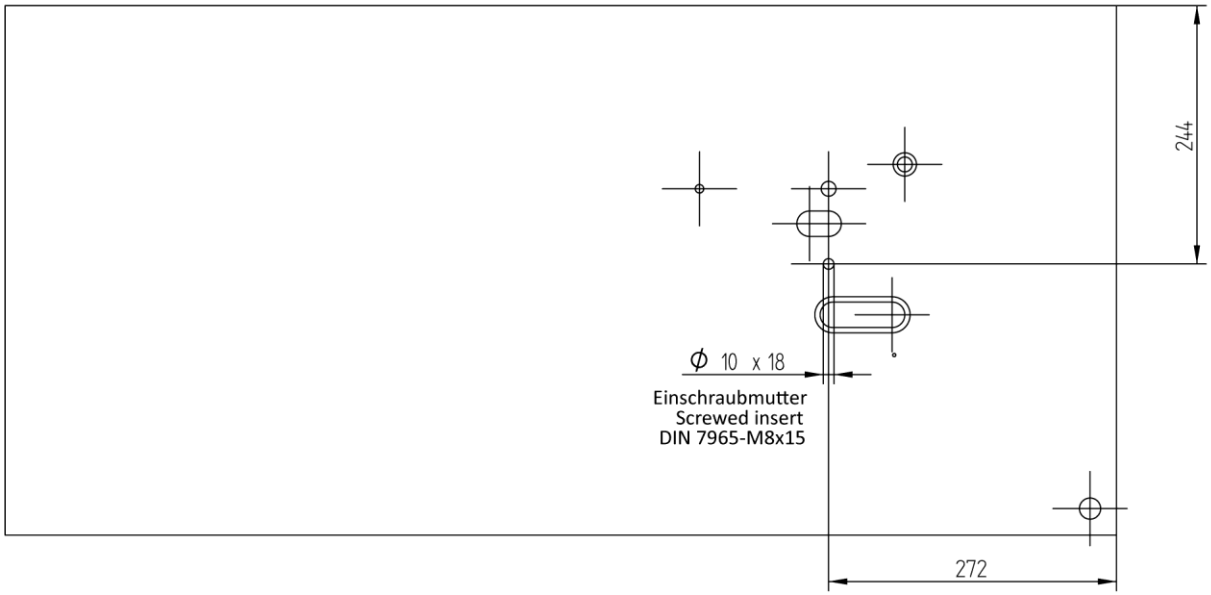
_____ _____

Datum/Date Unterschrift/Signature:

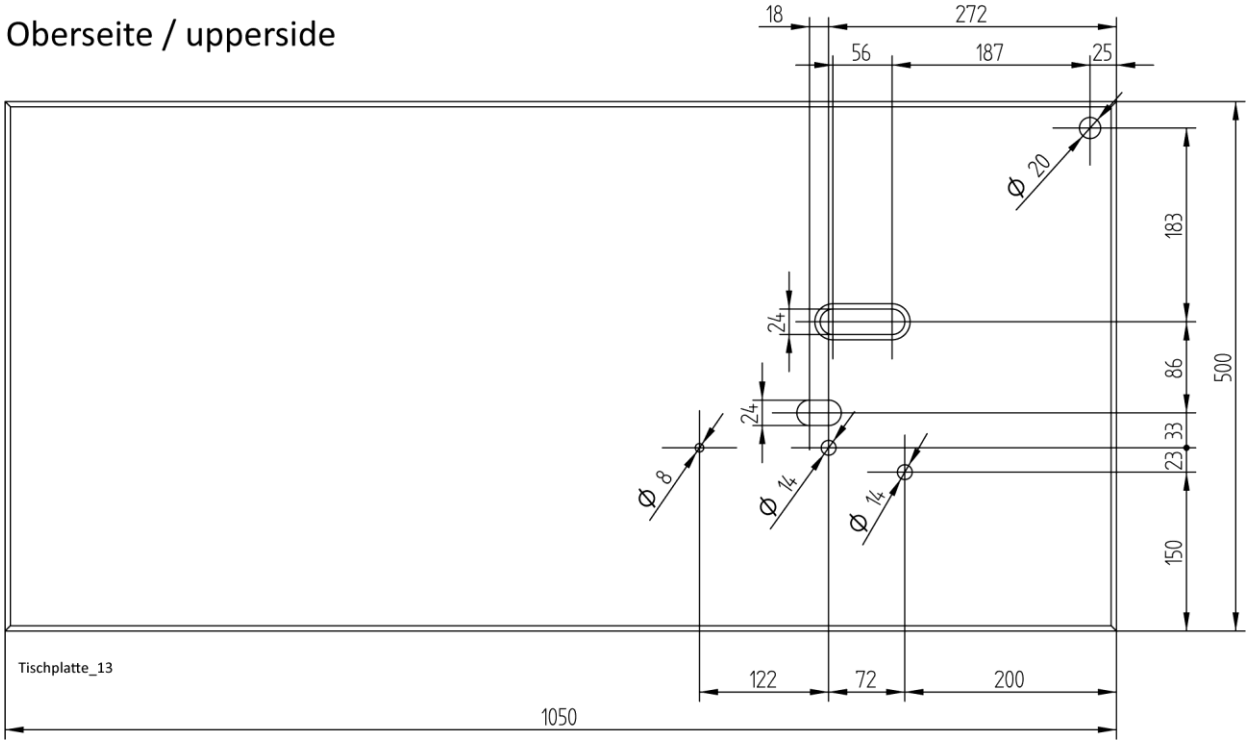
Bitte nicht vom Kunden ausfüllen/To be filled out by Strobel:

	Datum	Bemerkung
EXA:		
ETA:		
PROD:		
EXA:		
BH:		

Unterseite / underside



Oberseite / upperside



STROBEL

Operating instructions
STROBEL class 218D-TP-R

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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

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 blindstitch lockstitch machine for felling of the under collar at the necking of jackets and coats.

See point 7 for variable sewing tools.

2.4 Technical data

	Empfohlene Nennstichzahl / Recommended rated speed	1300 min-1
	Stichlänge / stitch length	2,0 - 6,0 mm (abhängig vom Nähmaterial / depend on fabric) Auslieferzustand / delivery condition 4,0 mm
	Untertransport / bottom feed	Pyramidenverzahnung / pyramid thoothing Sägeverzahnung / saw thoothing optional
	gefederter Taucher mit pneumatischer Absenkung / spring loaded plunger with pneumatic lowering	
	Anfangs- und Endriegel serienmäßig / spot tack at seam start and end as standard	abschaltbar / detachable
	Stichplattenöffnung / stitch plate opening	7,0 mm
	Stichtiefenanzeige / stitch depth display	digital display
	Nadelsystem / needle system Nadelstärke / needle size	GROZ-BECKERT 1717 VRUE 90/14
	Fadenspannung / thread tension Faden / thread	Auslieferzustand / delivery condition 70 cN Polyester, endlos gezwirnt / polyester continuous filament 80
	Abnehmbare Arbeitsplatte / removeable work plate	
	LED Leuchte / LED sewing lamp	

Technischer Auslieferzustand / delivery condition:	
Motor-Leistung min. / min. motor power	550 W
Zahnriemenscheibe Maschine / toothed belt pulley/machine	Z = 38
Zahnriemenprofil / toothed belt profile	HTD 5M-9
Stichart / stitch type	Zweifaden- Steppstich-Blindstich Typ 314 / two thread lockstitch blind stitch type 314
Anschluss pneumatisch / pneumatic connection	6 bar
Luftverbrauch, Mittelwert / avarage air consumption	40 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 74,5 dB(A)

3 Set-up and commissioning

3.1 Unpacking of the machine

Strobel machines are supplied either complete as upper part only.

The cotton stand and another machine accessories are located in the packaging.

Prior to disposing of the packing material it must be carefully checked whether all accessories parts have been unpacked.

3.2 Setting up the machine (Fig. 1 and Fig. 2)

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

Due to pulling in of parts of clothing or hair as well as **danger** of crushing of fingers!
The machine must not be operated without a guard for the belt for the upper part and for the motor.

The upper part of the table plate must be provided with bores according to the drawing.
Frame and pedals as well as electrical connections must be mounted according to the printed circuit.

Screw on the motor. The electrical connection must be made according to the circuit diagram in the online manuals.

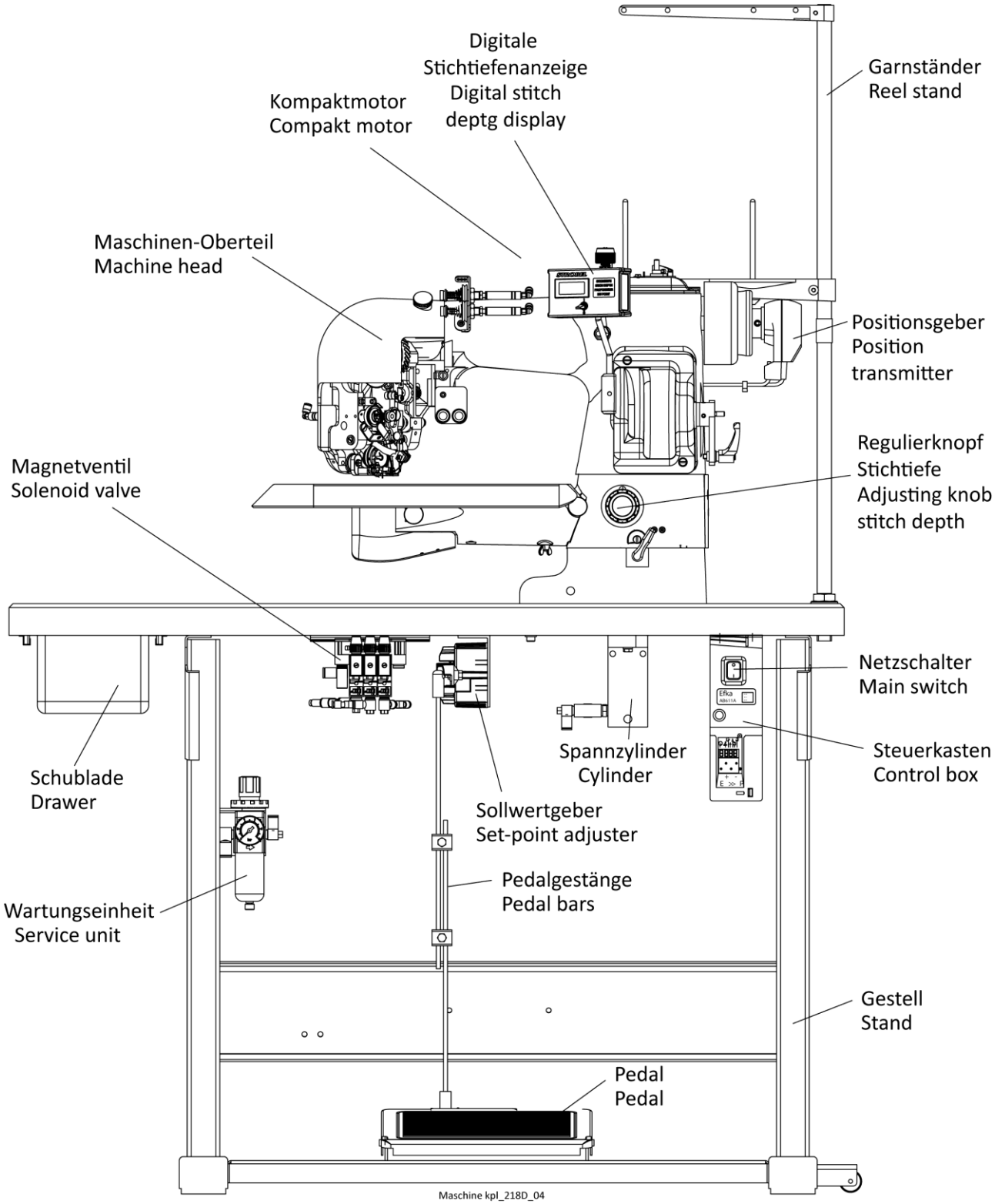
Screw the upper part to the table plate. (Fig. 2)

The bolts (1) and the pressure spring (2) are enclosed with the machine accessories and must be fitted as shown in Fig. 2.

The pedal rod system must be suspended according to Fig. 1.

Push on the knee lever and secure with knurled screw.

Fig. 1


Digitale
Stichtiefenanzeige
Digital stitch
deptg display
Garnständer
Reel stand
Kompaktmotor
Compakt motor
Maschinen-Oberteil
Machine head
Positionsgeber
Position
transmitter
Regulierknopf
Stichtiefe
Adjusting knob
stitch depth
Magnetventil
Solenoid valve
Netzschalter
Main switch
Steuerkasten
Control box
Spannzylinder
Cylinder
Schublade
Drawer
Sollwertgeber
Set-point adjuster
Pedalgestänge
Pedal bars
Wartungseinheit
Service unit
Gestell
Stand
Pedal
Pedal
Maschine kpl_218D_04

The cotton stand is mounted at the back on the right on the table plate after assembly of the individual parts. (Fig. 1)

Check all screws at the frame for tight fit and retighten if necessary.

Mount the position transmitter and adjust corresponding to point “3.4.2 Positions of the machine.

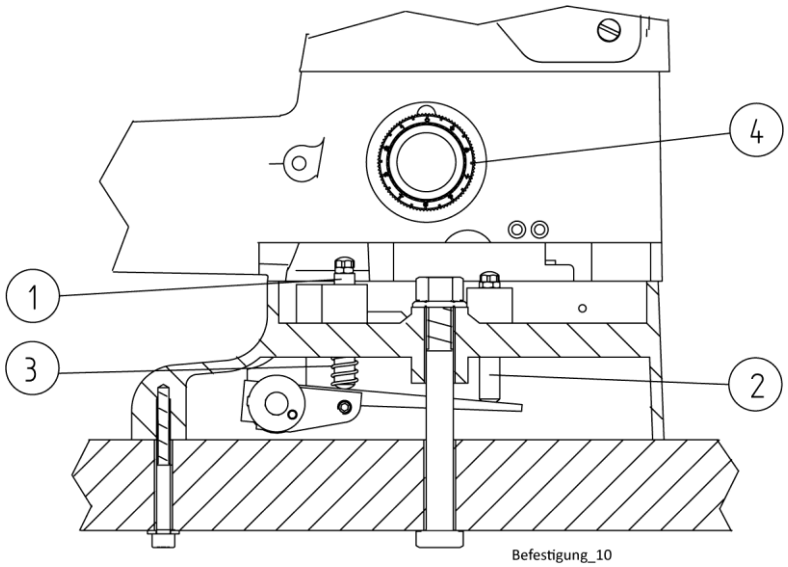
A T T E N T I O N !

Prior to commissioning the machine it must be checked whether the electric connection data on the type plate of the motor, especially the network voltage and the frequency, are according to the data of your current network.

A T T E N T I O N !

The machine must be oiled before first start. The maintenance instructions according to the operating instructions must be followed!

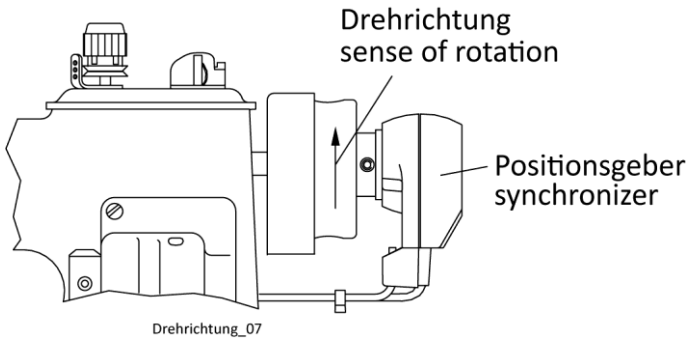
Fig. 2



3.3 Sense of rotation (Fig. 3)

The correct sense of rotation of the handwheel is clockwise.

Fig. 3



3.4 Motor drive via toothed belt

3.4.1 Tension of the timing belt (Fig. 4)

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

To check the tension of the toothed belt, switch off the machine electrically, pull the mains plug and ensure the machine has actually stopped by pressing the motor pedal.
The machine must not be operated without a belt guard for the motor.

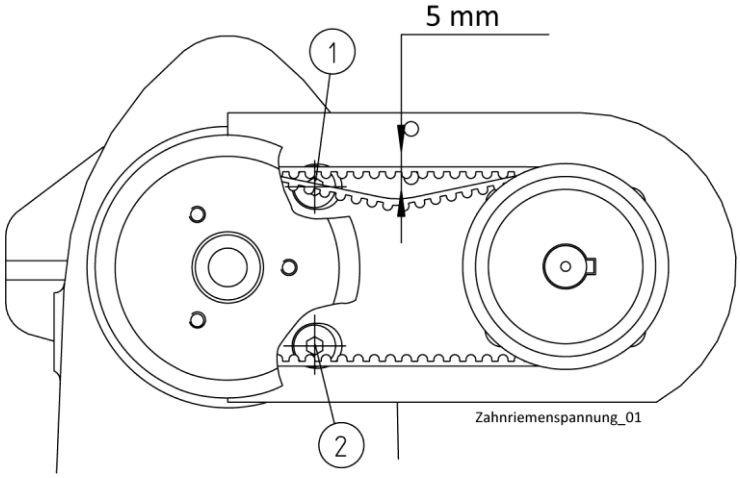
The tension of the toothed belt should not be too great. Slight thumb pressure should be able to push the belt through by approx. 5 mm.

A too little or too great toothed belt tension can deteriorate the positioning of the machine and therefore impair the function sequence.

Tensioning the toothed belt (Fig. 4):

- Release upper and lower retaining screw (1), (2) at the machine upper part.
- Pull out the motor slightly and tighten the lower retaining screw (2) slightly.
- Tension the toothed belt by swivelling the motor.
- Retighten the upper and lower retaining screw (1), (2).

Fig. 4



3.4.2 Positions of the machine

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

Danger of pulling in parts of clothing and of hair and danger of crushing fingers and stitching fingers with needles!
When checking positions with switched-on machine keep fingers and hands away from moving parts.

Machine with or without pneumatic:

The machine requires a needle position and depending on the sewing drive, possibly also a reference position.

Reference position:

The reference position must be set in such a way, that the point of the needle in direction of the insertion stitch closes with the right (inner) edge of the needle slide plate.

Needle position (with stop in and outside the seam:

The needle position needs to be set in such a way that when the machine is at standstill and the lifting is open the tip of the needle points in the direction of the right stitch and the plunger, feed dog, and presser plate are at one level (the position is located at about 8 mm after the upper needle turning point).

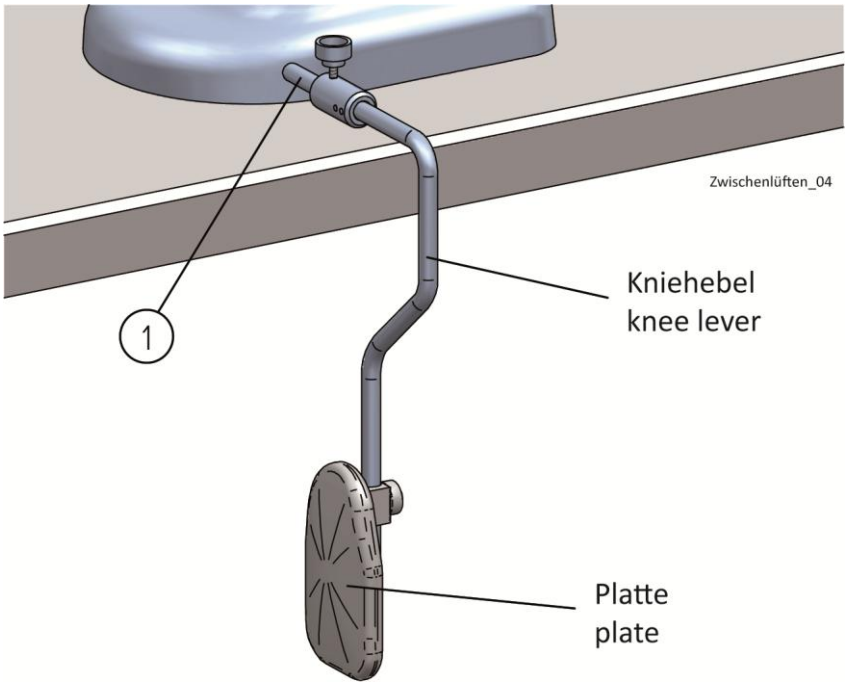
Notes for sewing drives which have two needle positions:

The needle position mentioned above is position 2 at the sewing drive. The position 1 at the sewing drive should be set in such a way that when the machine is at standstill the tip of the needle stands about
3 mm in the direction of the left stitch after the lower needle turning point.

3.5 Intermediate lifting (Fig. 5)

If, for a machine with pneumatic lifting facility, it is necessary to proceed with intermediate lifting by operating the knee lever, the latter may be fitted to shaft (1) in the usual position.

Fig. 5



4 Instructions for use

4.1 Needles and threads

The sewing quality can be influenced to a considerable extent by choosing the most suitable needles and threads for the material to be sewn. It is recommended to use controlled GROZ-BECKERT needles system 1717 VRUE only.

The machine is supplied with size 90/14 needles.

NOTE: A perfect needle is of great importance for a good sewing result. Damages of the needle point which often can be made visible under a magnifier only may deteriorate the sewing result. Replace the needle in time!

We recommend twisted polyester filament threads of size 80 respectively. Because of their high strength and ability to slide, combined with a low volume they are to be preferred over a spun thread.

G u a r a n t e e d r e m a r k !

This machine has been set and sewn off with **genuine GROZ-BECKERT needles**.
No guarantee can be granted if the settings are modified for using different needle types.

4.2 Inserting the needle (Fig. 6)

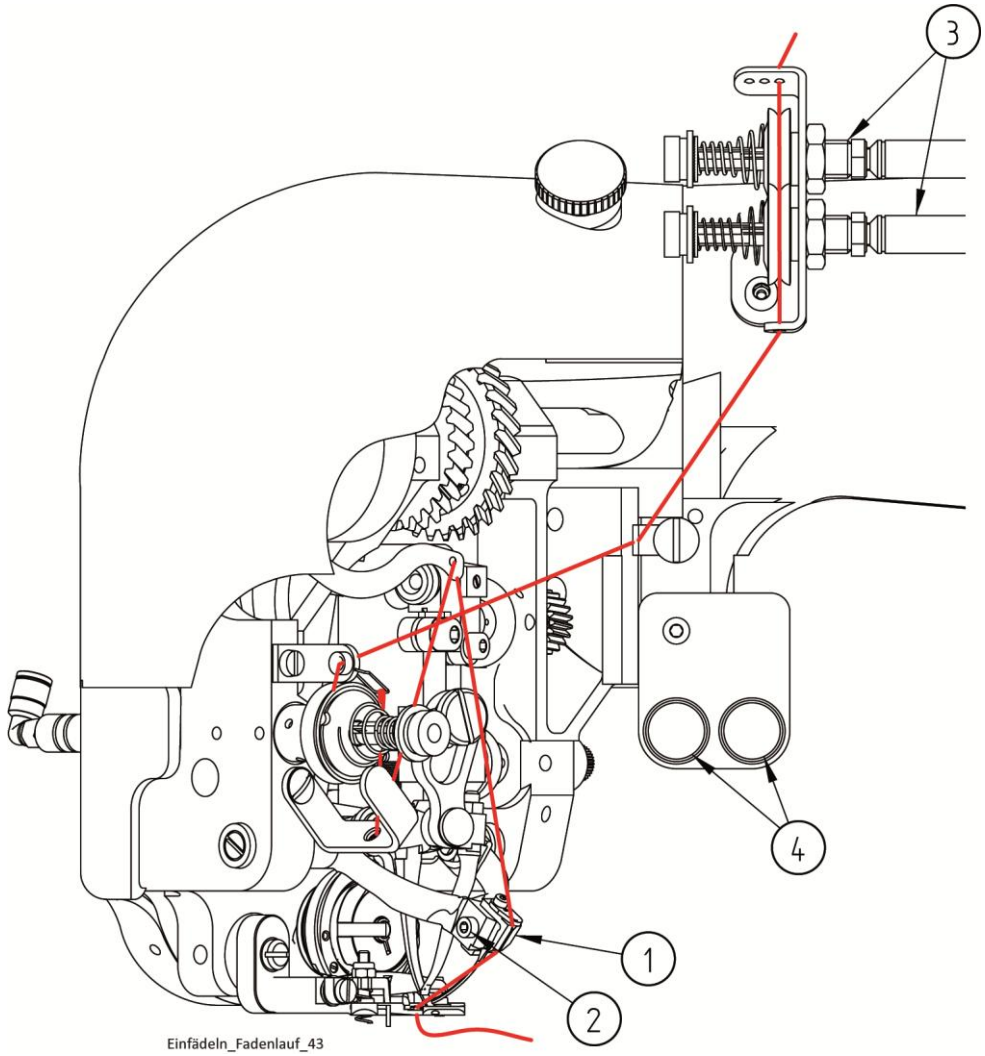
C A U T I O N ! Danger of injury!

Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

The curved needle shape determines its position in the needle lever. Attention should be paid only to ensure that the needle piston is pushed to the stop in the channel of the needle lever and that the screw (2) of the needle clamping plate (1) is tightened well.

Fig. 6



4.3 Threading and thread course (Fig. 6)

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

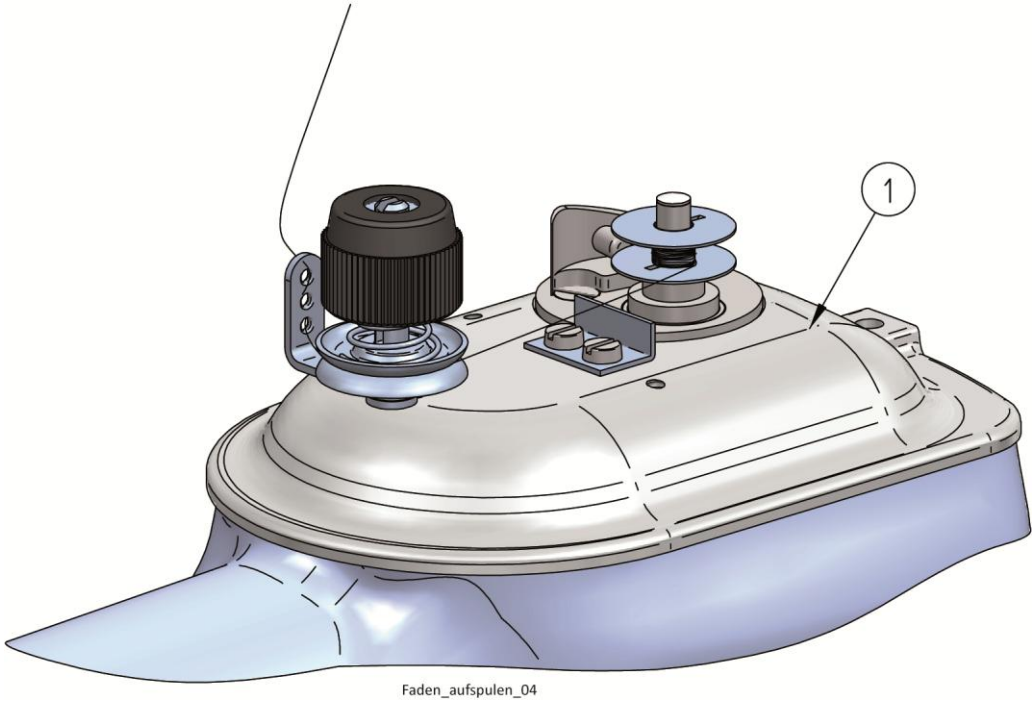
Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before threading.

Fig. 6 shows the correct threading by using the thread take-up.

4.4 Filling the bobbin (Fig. 7)

Fig. 7 shows how the thread should run when the bobbin is filled. Take care to avoid too much thread being wound on the bobbin or the upper and lower discs of the bobbin being forced apart.

Fig. 7



4.4.1 Installing the bobbin and threading the bobbin thread (Fig. 8)

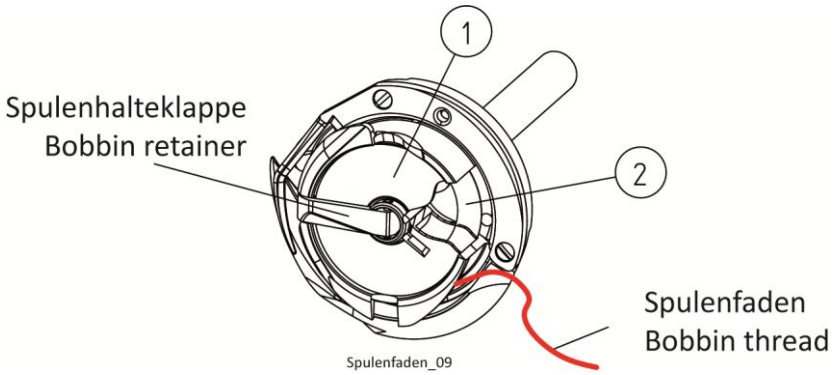
By turning the needle lever to its highest position with the hand wheel, the bobbin (1) can be taken out and reinserted. Fold the bobbin holder flap away from the bobbin capsule with a short jerk, the bobbin then jumps by spring pressure out of the bobbin capsule so that it can be easily removed. Make sure that the spool brake (2) is not lost!

When inserting the bobbin take care that the bobbin thread unwinds from the underside of the bobbin. Then guide the start of the bobbin thread through the slot at the right hand side of the bobbin capsule and hold it lightly at the stitch plate.

Then turn the hand wheel of the machine a full rotation and at the same time hold the needle thread lightly tensioned after take up by the hook point. This pulls the bobbin thread correctly under the leaf spring.

It is best to then lightly twist together the needle thread and the bobbin thread and pull them together to the back through the stitch plate hole.

Fig. 8



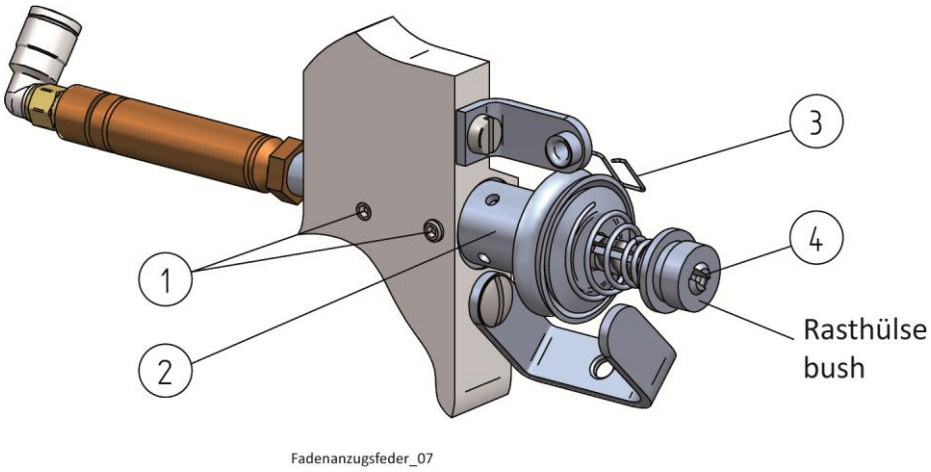
4.5 Thread tension

Depending on the quality, condition and thickness of the thread and the fabric , the thread tension is adjusted by means of the thread tension to the desired seam pattern.

4.5.1 Thread tensioning spring - needle thread (Fig. 9)

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.

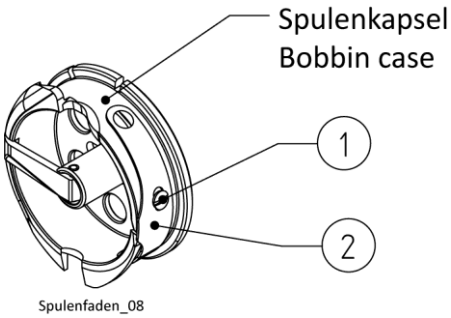
Fig. 9



4.5.2 Thread tension - bobbin thread (Fig. 10)

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. 10



4.6 Setting the stitch length (Fig. 7 + Fig. 11)

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

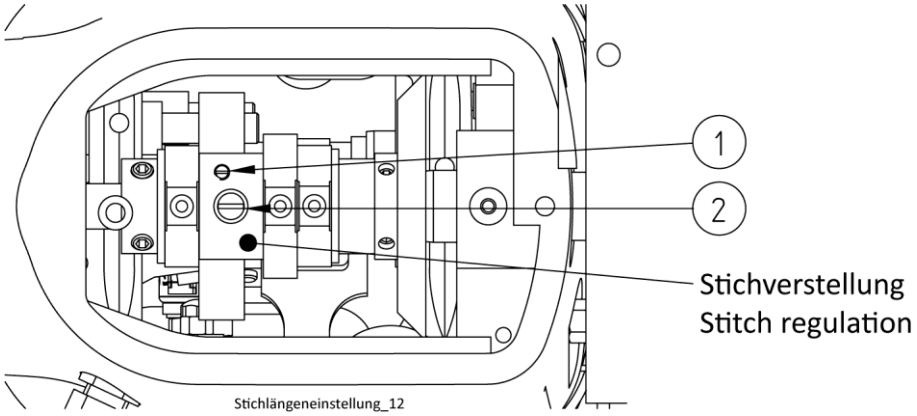
Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

The stitch length can be set after swivelling cover (1). (Fig. 7)

First, loosen lock screw (1) (Fig. 11) by means of a screw-driver (turn to the left), then turn stitch setting screw (2) (Fig. 11) to the left, if stitch length is to be increased. Turn this screw to the right if stitch length is to be reduced.
After setting the required stitch length, tighten lock screw (1) (Fig. 11).

Fig. 11



4.7 Stitch depth

Stitch depth means the distance between the highest plunger position and the outer radius of the needle. The plunger forces the sewn item from underneath into the stitch plate opening, so that the needle penetrates the layers of material to the desired depth.

small stitching depth: - the needle penetrates less deeply into the fabric layers of the sewn item

large stitching depth: - the needle penetrates more deeply into the fabric layers of the sewn item.

Too little or too great a stitch depth may result in missed stitches or stitching holes.

4.7.1 Setting the stitch depth (Fig. 1)

Using the stitch depth adjustment knob (3) Fig. 2 on the right on the lower arm, the plunger can be raised or lowered, according to the thickness of the material. Above this adjustment knob is a plate showing how the knob should be turned, so that the plunger can be lowered or raised.

Turning the knob clockwise: - plunger moves upwards, needle penetrates deeper.

Turning the knob anticlockwise: - plunger moves down, needle penetrates less deeply.

See also “4.7.2 Digital stitch depth display (Fig. 12)”.

4.7.2 Digital stitch depth display (Fig. 12)

If a digital stitch depth display is mounted, the plunger height is indicated digitally, thus facilitating the work considerably, especially when the material thickness changes frequently, because the required plunger height can be reset easily.

Electric current is supplied through a 9V battery in the housing. To avoid premature discharging of the battery it is recommended to switch off the display by means of the flip switch at the housing during break times and when finishing the work. The units digit indicates one hundredth of a mm, the hundreds digit indicates a full turn of the regulating knob.

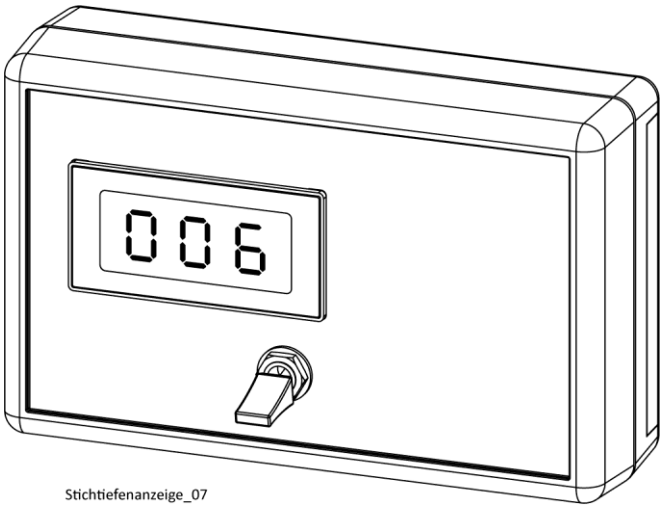
In general: low value - thin material

high value - thicker material

Stitch depth adjustment by 1 digit (= 1 place of the units digit) corresponds to a plunger height adjustment of 0.01 mm.

When the adjustment knob is turned clockwise to the stop, a figure of between 003 and 006 is displayed.

Fig. 12



4.7.3 Changing the battery (Fig. 12)

- Bring the switch to 0 position.
- Open cover on the backside of the housing
- Change the battery **- ATTENTION!** Observe the polarity!
- Close cover.

4.8 Plunger limit stop

When felling fabrics, it is often necessary to sew through layers of material of varying thickness on the same article, while the depth of penetration of the needle as seen from the upper side of the fabric should remain the same.

This process is executed automatically on our machines, by using the plunger in connection with the adjustable limit stop mounted on the stitch plate.

4.9 Plunger lowering

For larger sewing material thickening, sometimes the stitch depth of a stitch should be reduced over a shorter or longer section.

On the stand on the right, the height of the lowering can be specified by adjusting the scale, from a minimum of 0 mm to a maximum of 3.8 mm.

The plunger lowering can also be switched on at rest or during sewing by actuating the button (4) Fig. 6 on the right of the head. The button lights up yellow when switched on.

In addition, when plunger lowering is activated, the tension of the thread is automatically increased by additional thread tension (3) Fig. 6.

4.10 Thread spreader

Some of our felling machines are fitted with a thread spreader, permitting the formation of a zigzag stitch. When sewing without this device, a standard seam as shown in Fig. 16 is produced.

If inserting points of thread spreader need to be changed and/or adapted to the machine, take care to bend the points only above the center, as the bottom half is hard.

4.10.1 Removing thread spreader (Fig. 13)

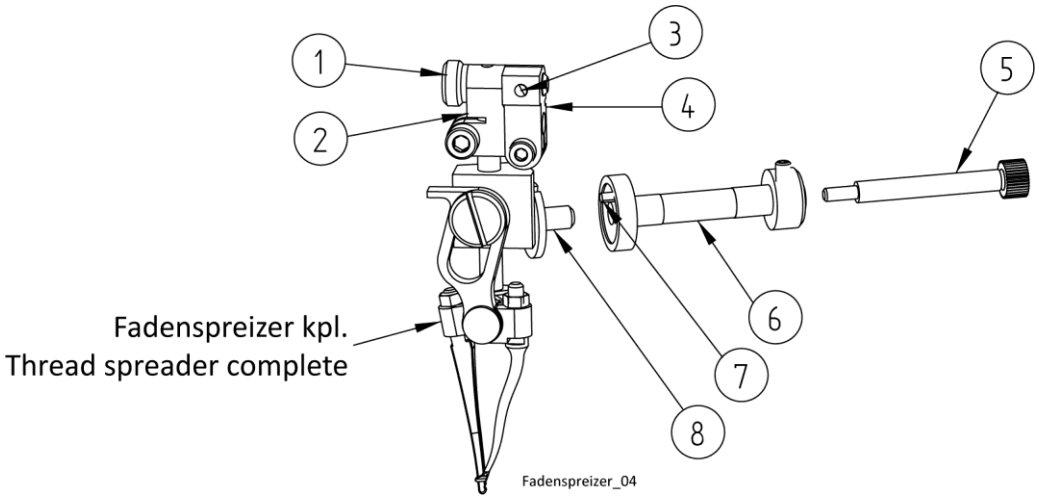
C A U T I O N ! Danger of injury!

Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

- Set thread spreader in highest position.
- Loosen screw (3) and remove bolt (1).
- Take off knurled screw (5) and move complete thread spreader to the left.

Fig. 13



4.10.2 Inserting thread spreader (Fig. 13)

- Place needle lever into highest position by turning hand-wheel.
- Introduce thread spreader from the left into sleeve (6). Take care that cylinder pin (7) catches into groove of piece (8).
- Push knurled screw from the right into sleeve (6) and tighten it firmly.
- Slip bolt (1) trough (2) and (4) and clamp it by means of screw (3).

4.11 Seam lock

A T T E N T I O N !

Switch off machine electrically!

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

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

4.11.1 General

The sewing cycle begins with the point tack by pressing the pedal forwards. The sewing speed is independent of the pedal. After completing the point tack, the machine sews at the speed set by the pedal. When the pedal is released at the end of the stitch, the seam lock becomes active and the machine lifts off automatically after finishing the point tack. An intermediate lift thus only functions using the knee lever.

The point tack function is always switched on by default. The function can be generally switched off by the software or temporarily by the switch (S2) to the right of the head.

During point tack, feed dog is deactivated and an additional thread tension is active. This thread tension needs to be set separately.

The start and end backtack are active by default. As an alternative, you can use only the end backtack.

4.12 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.

5 Operating the sewing machine (Fig. 14)

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

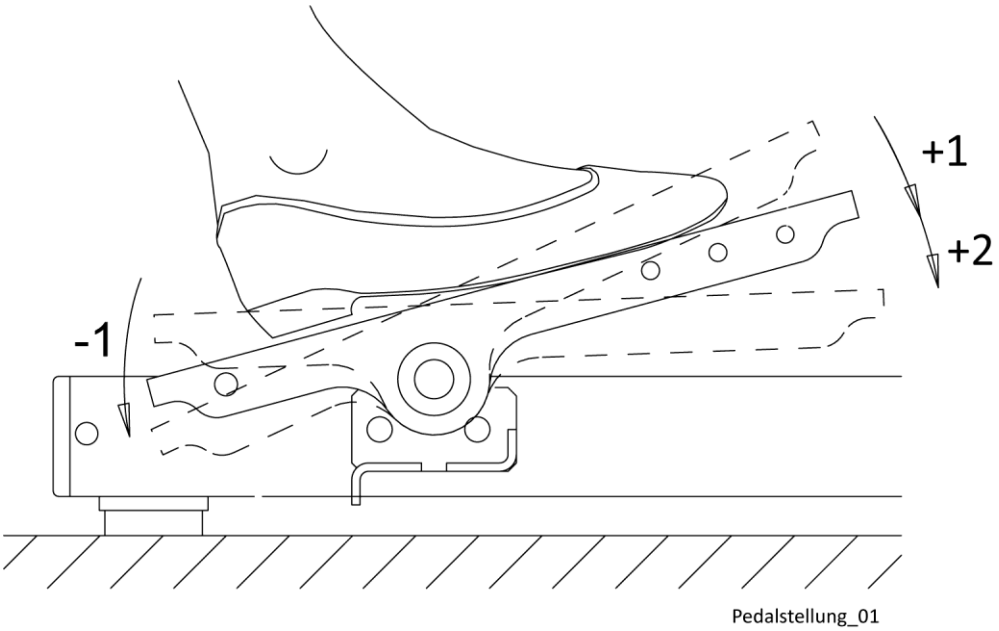
Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

For machines with 2 pedals: push down the left pedal fully increases the top feed length (multi-width take-up). With this configuration, motor control is taken over by the right pedal.

To lift the machine, pneumatic lifting is supplied as standard.
When releasing the pedal to switch on the motor, the machine moves to its position and pneumatic lifting takes place.
Pressing the pedal forwards closes the lifting and the machine starts to sew.

Fig. 14



5.1 Switch-on

Switch on the main switch on the right underneath the table plate.

With pneumatic lifting, connect the service unit to the compressed air network (10 bar) or connect the compressor and regulate to 5 – 6 bar.

The lifting is now opened and the sewing machine is ready for operation.

5.2 Inserting and removing the sewn item

After the pedal has returned, the machine moves to its needle position and automatically lifts. At the same time the needle thread tension is released and the fabric can be removed.

The sewn item can now be placed in the machine, between the stitch plate and gripping plate.

The sewing material can only be removed again when the last stitch has been completed, the needle loop has fallen from the hook, the needle is in the top position again and the pedal is stepped back.

ATTENTION! Do not operate the machine if there is no material between the stitch plate and feed.

5.3 Sewing

5.3.1 Staffing lower collar with blindstitch

If there are no experience values available, the best thing to do is to carry out the following settings in sequence:

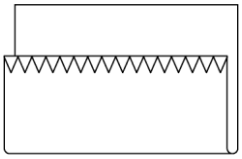
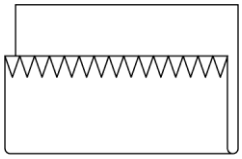
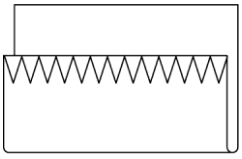
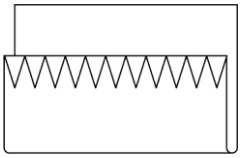
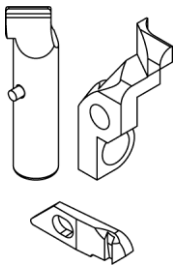
- Adjust required stitch length
- Adjust material guide (if available)
- Adjust stitch depth
- Check plunger stop and if necessary adjust
- Adjust thread tension.

Load the sewing material and make sure that the seam is at the edge of the lower collar.
Check the sewing result achieved and possibly modify the adjustments carried out above.
For punctures on the outer fabric adjust the stitch depth regulation and the divers stop.

„Markings“ caused by the penetration of the needle in the outside fabric (shift of fibres) sometimes cannot be avoided with extremely thin und hard sewing material.

When sewing take care that the lower collar always runs along the material guide. Jerky activation of the pedal should be avoided, as changes in speed during the sewing process can under certain circumstances have a negative effect on the initial stitch.

5.3.2 Seam appearance

very small triangle	small triangle	Standard triangle	big triangle
 Nahtbild_01	 Nahtbild_02	 Nahtbild_03	 Nahtbild_04
381.0166 Plunger set 	281.0030 Plunger Ø3 mm 	281.0032 Plunger Ø4 mm 	281.0033 Plunger Ø5 mm

5.4 Problems during sewing and possible solutions

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

Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control.

Otherwise there is a **danger of injury** from crushing and needle punctures.

- **Thread breaking**

  Possible reasons:

  - sharp edges or grooves in needle guide, take-up lever, hook or needle eye when the machine has been used for a long time.
  - The thread between hook and bobbin case breaks or is pinched off.
  - Too much oil has penetrated the hook path
  - The bobbin is packed too tight or the bobbin sides are forced apart because the thread is too tightly wound.
  - Bobbin case lifting or hook bridge are not correctly adjusted.
  - The hook to needle or needle rise has not been correctly adjusted or has become displaced, meaning that the thread loop is not always taken up.
  - Thread tension is set too slack or too tight.

  Solutions:

  - Replace or re-polish the damaged parts
  - Dismantle hook, remove bobbin case and polish the feed edges of the bobbin case and hook path.
  - Using an absorbent thread (cotton thread, core spun thread), sew out on a remnant.
  - Insert new bobbin
  - Slowly turn the machine by hand and check whether the loop slides unimpeded through the hook. If not, readjust bobbin case lifting or hook bridge.
  - Correct hook position or loop lift.
  - Correct thread tension - check thread line.

  ATTENTION! thread course, thread, stitch plate with plunger and plunger limit stop, needle and thread tension should always be set and chosen according to the material to be sewn.

- **Uneven stitching**

  Possible reasons:

  - frequently worn or damaged needles
  - height of stitch plate or needle slide plate incorrectly adjusted
  - unsuitable needle thickness (too thin)

  Solutions:

  - Replace damaged needle. Check adjustments and correct if necessary. Use correct needle thickness.

- **Missing loops**

  Possible reasons:

  - incorrectly adjusted or badly adjusted hook
  - Loop stroke too small or too big

  Solutions:

  - Turn machine by hand and check hook motion. The cause can usually be seen.
  - If necessary, also correct thread tension or thread tension spring.
  - correct loop lift.

- **Loops become stuck**

  Possible reasons:

  - thread tension too slack
  - needle not tacking

  Solutions:

  - Check thread tension or thread tension spring
  - Check stitch depth (even for skip stitch or plunger lowering)

- **Machine does not start**

  Possible reasons:

  - Control fault
  - Mechanical damage

  Solutions:

  - Switch machine off and on again
  - Rectify mechanical faults
  - Check programming. If necessary, call customer service.

- **The sewing result does not come up to your expectations**

  Possible reasons:

  - Damaged sewing tools or wear caused by improper use or natural wear following long use of machine.
  - The machine has become mechanically misadjusted
  - Unsuitable needle thickness (see “4.1 Needles and threads”)
  - Unsuitable sewing thread (see “4.1 Needles and threads”).

  Solutions:

  - Replace damaged parts by customer service
  - Work carried out by engineers: see also mechanic’s instructions and if necessary, call customer service
  - Replace needle; also check needle tip for damage.

- **Marks on or damage to the sewn item**

  Possible reasons:

  - unsuitable feed gearing
  - Sewing tools incorrectly set
  - Damaged sewing tools
  - Unsuitable needle or thread thickness.

  Solutions:

  - check settings
  - check feed (gearing), if necessary, replace feed
  - choose needle and thread to suit sewing material.

- **Difficulties during feeding the sewn material** (stitch length)

  Possible reasons:

  - Feed incorrectly adjusted
  - Unsuitable feed gearing
  - Incorrect presser plate take-up
  - Bunching of the sewn item on the stitch plate, particularly when cross-seaming.

  Solutions:

  - check settings, if necessary change feed.
  - Check lower side of stitch plate, feed and sewing tools for damage, if necessary replace or re-polish.
  - The suitable stitch plate must be selected for thick sewn material – see “7 variable sewing tools”

5.5 Missed stitches (Fig. 15, Fig. 16, Fig. 17, Fig. 18)

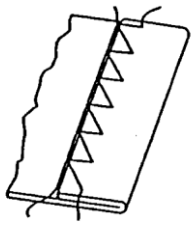
The correct double thread blind stitch with thread spreader is shown in Fig. 15. If the spreader is expanded, then the seam has the appearance of one from a double thread straight stitch machine. (Fig. 16)

If the thread spreader does not hold correctly, in other words, it misses a stitch every now and again, then the stitch looks like the one illustrated in Fig. 17. The spreader must then be correctly adjusted and the tension of the adjusting spring (3) (see Fig. 9) must be checked.

If the hook is the cause for the machine missing a stitch, then the seam looks like the one in Fig. 18.

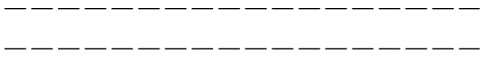
The long thread triangles indicate that the tip of the hook does not always hook into the thread loop.

Fig. 15



Nahtbild_Spreizer_01

Fig. 16



Fehlstiche_04

Fig. 17

Fehlstiche_05

Fig. 18

Fehlstiche_06

6 Maintenance of the machine

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

Switch off machine electrically and confirm that the machine is really in standstill position by operating thetreadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

A T T E N T I O N !

The machine must be oiled before first start. The maintenance instructions according to the operating instructions must be followed!

The machine must be oiled every day at the points marked in red (oil bottle enclosed with machine accessories). For this purpose, the housing cover top right, the lower arm cover bottom left and the head cover must be removed.

Material, fibres and dirt which have accumulated on the moving parts of the machine, must be removed as they can cause faults and jeopardise the operating reliability of the machine.

Even the hook path should be lubricated with a drop of oil from time to time. For this purpose there is a hole in the hook cover.

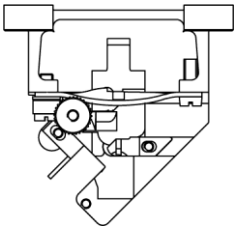
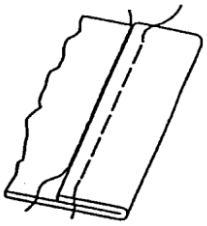
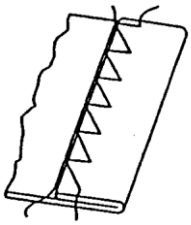
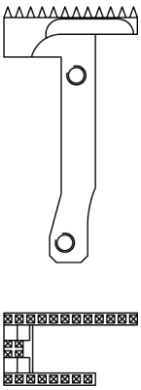
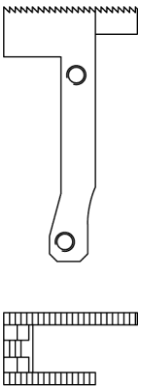
7 Variable sewing tool

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

Switch off machine electrically and confirm that the machine is really in standstill position by operating the treadle for the motor control before changing the needle.

Otherwise there is a **danger of injury** from crushing and needle punctures.

The following chart shows all sewing tools available.

<table>
<tr><td colspan="3">Cl. 218D-TP-R</td></tr>
<tr><td>Stitch plate</td><td colspan="2">Standard
380.0246
 
7,0 mm opening</td></tr>
<tr><td>Stitch formation</td><td>without spreader
straight stitch
  </td><td>with spreader
zigzag stitch
  </td></tr>
<tr><td>Feed dog</td><td>Standard
182.0293
  </td><td>Optional
182.0315
  </td></tr>
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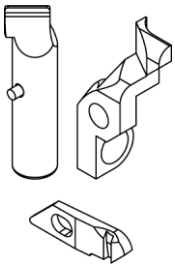
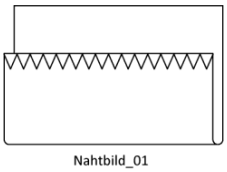
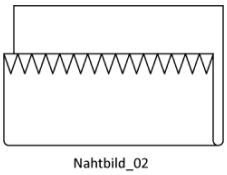
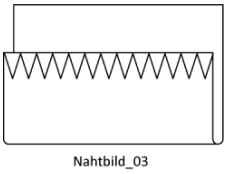
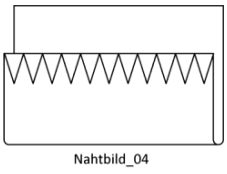
Cl. 218D-TP-R Plunger		
381.0166 Set Plunger set supplied		
281.0030 Ø3 mm Plunger supplied		
281.0032 Ø4 mm Plunger integrated		
281.0033 Ø5 mm Plunger supplied		

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Ein- und Zweifaden-Blindstichmaschinen

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