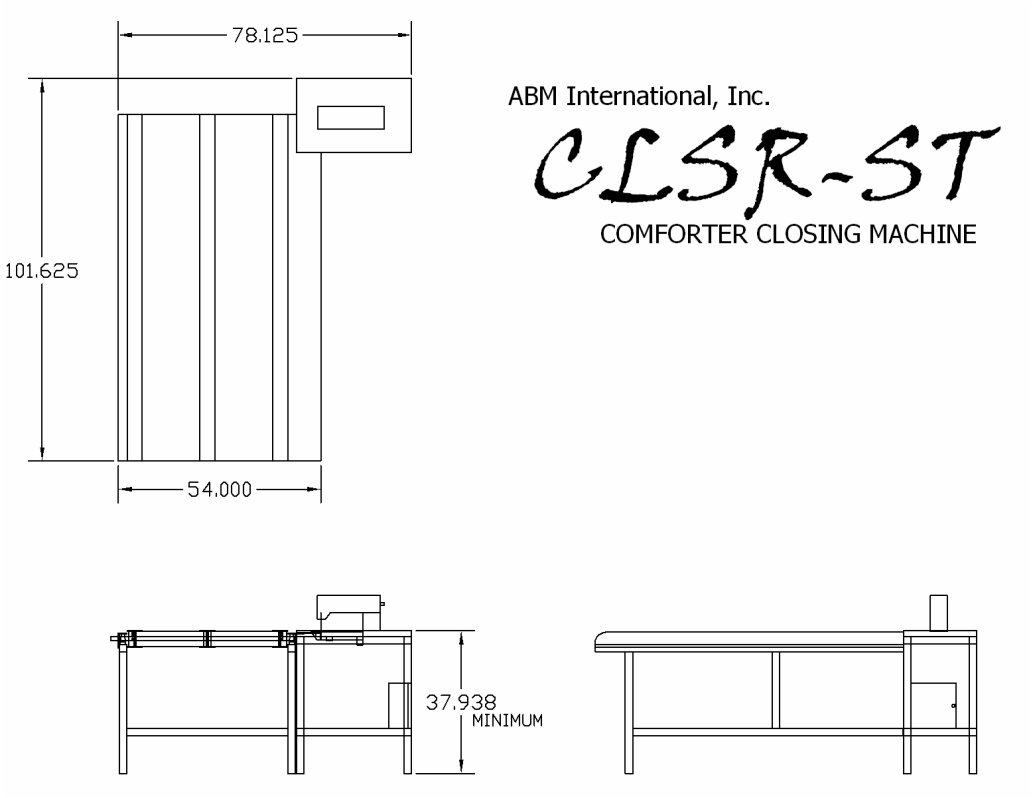
ABM INTERNATIONAL, INC.

MODEL: CLSR-ST
STAND-UP COMFORTER
CLOSING MACHINE

SERVICE MANUAL



ABM INTERNATIONAL, INC.

CLSR-ST COMFORTER CLOSING MACHINE

Manual ver: 1.0

TABLE OF CONTENTS:

Introduction

ABM International would like to thank you for the purchase of an CLSR-ST comforter closing machine. ABM is confident that this machine will meet or exceed your expectations for cost, speed and durability.

If at anytime you experience problems with any of your ABM machines we ask that you contact us - 24 hours a day by calling our service department at (281) 443-4440. We can help you solve the problem quickly, and correctly. Your calls, questions, and comments will in turn help us to perfect the quality of our products and services in the future.

Once again, we thank you for your purchase.

ABM International, Inc.

Joe Podolski
Vice President
Engineering Department

Section 1.0 - Safety

1.0 Safety Introduction

As with the operation of all machinery, safe operation of the CLSR-ST is a major concern of ABM International, Inc. The purpose of this section is to inform personnel of the safe and prudent operation of a CLSR-ST.

We have attempted to recommend the most effective methods and calculations to warn against actions that could result in personal injury, or make equipment unsafe. It is important to understand that ABM cannot anticipate, or list all conceivable safety methods and warn of all the possible hazards. In the interest of promoting safety, ABM advises that the operating personnel should always make sure that personal safety and the safe operation of the machine will not be adversely affected by their actions.

It is imperative that the operating personnel of the CLSR-ST read and understand the information in this manual before operating the machine.

1.1 Safety Policy Statement

The conservation of the assets of any company, which include the buildings, equipment, supplies and inventories as well as personnel, must be and is the responsibility of all levels of management. The purpose of a personnel and property conservation program is to insure that all phases of management recognize that personnel and property conservation are both inseparable parts of a company's objective…to produce quality products at the lowest possible cost.

Safety of personnel in every aspect must be of first consideration. The implementation of a conservation program will eliminate human suffering and effectively lower the direct and indirect costs resulting from employee injury. It will substantially reduce the exposure and probability of damage and / or loss of company's physical assets.

1.2 Safety Practices

The safety factors must be observed to ensure safe operation of the CLSR-ST.

1. Read and understand the operating instructions of the CLSR-ST before operating.
2. Use extreme caution when working around the CLSR-ST electrical controls.
3. Keep hands or other body parts away from the moving parts of the CLSR-ST.
4. Wear appropriate personal safety protection.
5. Stop the CLSR-ST immediately at any sign of malfunction or danger.
6. Do not crawl under or into the CLSR-ST for any reason during the operation of the machine.
7. Do not reach into the CLSR-ST at any time during the operation of the machine.
8. Do not climb, walk, or stand on the CLSR-ST at any time.
9. Do not tamper with factory installed guards and or safety devices.
10. Never operate machinery without all ABM installed guards and safety devices intact, and in working order.

11. Before starting the CLSR-ST, ensure that no loose tools, bars or parts are lying in or on any part of the machine.
12. Proper fire fighting equipment should be kept in good operating condition and kept near in the event of fire.
13. Never attempt to service any of the pneumatic components until the unit is relieved of all air pressure.
14. Do not wear loose clothing or jewelry when operating the CLSR-ST.
15. Always keep hair from coming in contact with moving parts.

Section 2.0 – Machine Setup

2.0 Setup Instructions

The CLSR-ST is fully tested prior to breakdown and delivery to the customer. As a result, this manual provides a section on machine setup so that you can install the machine. Please read this manual in its' entirety and follow all ABM instructions, especially the inspections. Total setup time, less power and air hook-up, should take approximately 1 hour.

Upon receipt of the machine, check to ensure that there is no visible damage **Note: Some components may be in different locations depending on the version of the machine.**

2.1 Machinery Positioning

Determine the location in your facility for the panel cutter. Attach the four (8) machine legs supplied with the machine to the plates that were used to bolt the machine to its skid. Level and position the machine in the desired location. Though not required, ABM recommends that the machine be bolted to the floor.

2.2 Power Installation

This section will confirm that the electronics of the machine is functioning properly.

WARNING: ELECTRICAL SHOCK HAZARD. IF A PROBLEM IS FOUND, YOU SHOULD NOT ATTEMPT TO REPAIR IT WITH THE POWER ON. DISCONNECT THE MACHINE PRIOR TO ADJUSTING ANY COMPONENTS WITHIN THE ELECTRICAL CABINET.

Run a 220VAC, single phase, 10A line to the main cabinet location. As with any machine, power should be run through approved conduit and ducting with proper termination. ABM does not supply a main power disconnect with the machine and recommends that the customer install one. You may connect the power to the machine at this time.

Turn the main power switch to ON. An LED on the switch box will signify that power has been applied. Wait a few moments for the system BEEP. After the BEEP has sounded, the machine may be operated according to the procedures outlayed in the PFAFF manuals found in the appendix.

Section 3.0 – Operation

The CLSR-ST Conveyor had been designed to feed the comforter at a speed relative to the sewing speed of the machine. When the operator presses the foot pedal the sewing machine begins to sew and the conveyor responds with a variable speed. Pressing the foot pedal further increases the speed of sewing and feed rate of the conveyor. Releasing the foot pedal causes the sewing machine and conveyor to come to a stop.

If the speed relationship between the conveyor and sewing machine must be adjusted, parameter 24 of the variable frequency drive should be modified. A larger value for parameter 24 will increase the conveyor speed to sewing speed. A smaller value will reduce the speed of the conveyor. See the appendix for further information on parameter modification.

Section 4.0 – Troubleshooting guide

This section is included to help diagnose and solve any problems that may occur with the CLSR-ST. ABM has done its best to include as much information as possible. However, not all problems are listed, therefore ABM asks that whenever a problem occurs you contact a service technician at our home office. To reach service dial 281-443-4440 and ask for a service technician, they are on call 24 hours a day, seven days a week.

4.1 Electrical Power

The CLSR-ST runs on a 10 amp, 220VAC single phase supply line.

4.2 Verifying Inputs and Outputs

The CLSR-ST performs all of its functions through the foot pedal and operator interface on the sewhead. Consult the sewhead manuals for instructions on input and output control.

4.3 Pneumatic systems

The CLSR-ST does not contain any pneumatic systems installed at the factory.

4.4 Troubleshooting notes

A few blank pages are provided so that you and your personnel can keep records and notes of machine problems. By using this section and keeping it attached to the manual, you will always have your own personalized quick reference repair section.

TROUBLESHOOTING NOTES:

Date	Problem	Solution

TROUBLESHOOTING NOTES:

Date	Problem	Solution

TROUBLESHOOTING NOTES:

Date	Problem	Solution

TROUBLESHOOTING NOTES:

Date	Problem	Solution

Section 5.0 – Parts List

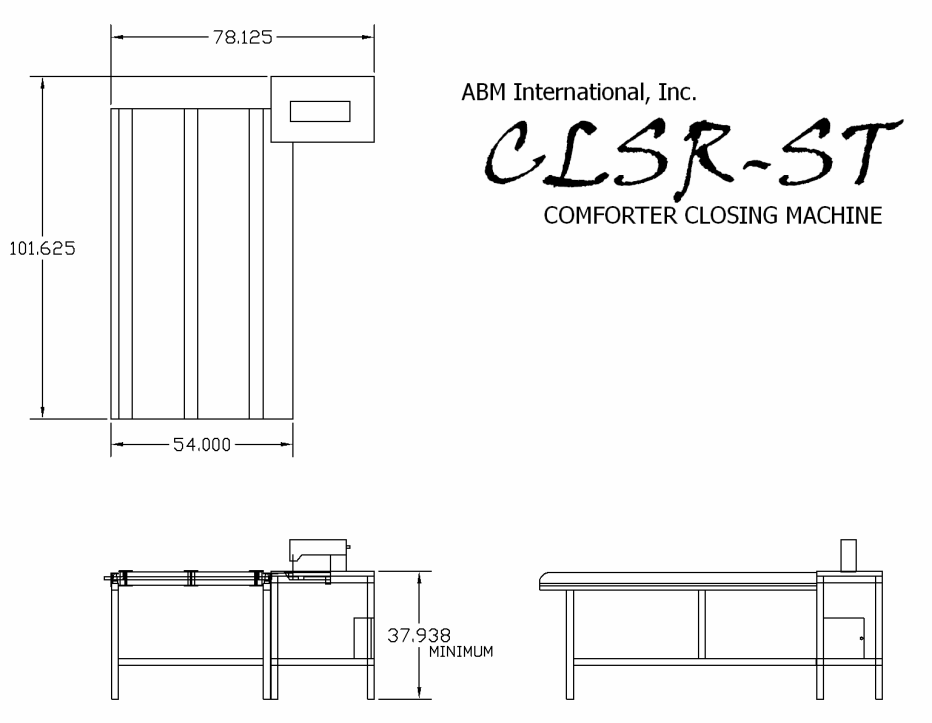
This section lists the ABM part numbers needed to order any part on the CLSR-ST. The section is divided into two lists. Both lists show the quantity, item description and ABM part number for all the components needed to completely rebuild a machine. ABM carries all of the components below in stock at all times. Any order placed before 6:00 P.M. CST can be shipped the same day for next day delivery. The parts/service department can be reached at (281)443-4440. As with any machine, buying the correct parts from the correct manufacturer will allow your machines to operate their best. Buying parts from sources other than ABM will void your warranty.

Closer with Stepper Puller

Qty	Description	ABM Part
2	Sprocket - Conveyor/Conveyor Motor	
1	Bushing - conveyor motor	
1	Bushing - conveyor drive shaft	
1	Roller chain	
2	UHMW BLACK	
2	UHMW BLACK	
4	UHMW BLACK	
1	Gear Motor - 30:1 LH Output (REMOVE THE BRAKE)	C-1000-023
1	Quick disconnect 4-cond plug	
1	Quick disconnect 4- cond socket	
1	Ground terminal block	
5	Output terminal block	
2	Terminal end block	
1	Din Rail	
4	Strain Relief	
6	Ball bearing	
1	Enclosure - 12 x 12 x 6	
1	Enclosure sub panel	
1	Variable frequency drive	
8	Small mounts	C-5000-107
1	Pfaff 1183 Sew Head w/ MINI STOP w/ Puller and Table Top	C-5000-054
1	Treadle	
3	Conveyor Belt	

Closer with DC Servo Puller

Qty	Description	ABM Part
2	Sprocket - Conveyor/Conveyor Motor	
1	Bushing - conveyor motor	
1	Bushing - conveyor drive shaft	
1	Roller chain	
3	4" DIA Black UHMW	
2	UHMW BLACK	
2	UHMW BLACK	
4	UHMW BLACK	
1	UHMW BLACK	
1	Gear Motor - 30:1 LH Output (REMOVE THE BRAKE)	C-1000-023
1	Ground terminal block	
5	Output terminal block	
2	Terminal end block	
1	Din Rail	
4	Strain Relief	
6	Ball bearing	
1	Enclosure - 12 x 12 x 6	
1	Enclosure sub panel	
1	Variable frequency drive	
4	4" DIA. X 18" long Conveyor Roller - 1" bore	
8	Small mounts	C-5000-107
1	Pfaff 1183 Sew Head w/ MINI STOP w/ Puller and Table Top	C-5000-054
1	2.2k Resistor	
1	1k Resistor	
1	Treadle	
3	Conveyor Belt	



Appendices

The following pages provide technical information with regards to the electronics located within the machinery.

PFAFF

1181
1183

Instruction Manual

1181-D
1183-D

This instruction manual applies to machines from the following serial numbers onwards:

6 063 202 ⟶

296-12-19 009/002
Betriebsanleitung engl. 08.07

This Instruction Manual is valid for all models and subclasses listed in the chapter "Specifications".

The adjustment manual for the machines can be downloaded free of charge from the internet address
www.pfaff-industrial.de/pfaff/de/service/downloads
As an alternative to the internet download the adjustment manual can also be ordered in book form under part no. **296-12-19 023/002.**

PFAFF Industrie Maschinen AG

Postfach 3020

D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

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1 Safety

1.01 Directives

This machine is constructed in accordance with the European regulations contained in the conformity and manufacturer's declarations.
In addition to this Instruction Manual, also observe all generally accepted, statutory and other regulations and legal requirements and all valid environmental protection regulations!
The regionally valid regulations of the social insurance society for occupational accidents or other supervisory organizations are to be strictly adhered to!

1.02 General notes on safety

- This machine may only be operated by adequately trained operators and only after having completely read and understood the Instruction Manual!
- All Notes on Safety and Instruction Manuals of the motor manufacturer are to be read before operating the machine!
- The danger and safety instructions on the machine itself are to be followed!
- This machine may only be used for the purpose for which it is intended and may not be operated without its safety devices. All safety regulations relevant to its operation are to be adhered to.
- When exchanging sewing tools (e.g. needle, roller presser, needle plate and bobbin), when threading the machine, when leaving the machine unattended and during maintenance work, the machine is to be separated from the power supply by switching off the On/Off switch or by removing the plug from the mains!
- Everyday maintenance work is only to be carried out by appropriately trained personnel!
- Repairs and special maintenance work may only be carried out by qualified service staff or appropriately trained personnel!
- Work on electrical equipment may only be carried out by appropriately trained personnel!
- Work is not permitted on parts and equipment which are connected to the power supply! The only exceptions to this rule are found in the regulations EN 50110.
- Modifications and alterations to the machine may only be carried out under observance of all the relevant safety regulations!
- Only spare parts which have been approved by us are to be used for repairs! We expressly point out that any replacement parts or accessories which are not supplied by us have not been tested and approved by us. The installation and/or use of any such products can lead to negative changes in the structural characteristics of the machine. We are not liable for any damage which may be caused by non-original parts.

1.03 Safety symbols

Danger!
Points to be observed..

Danger of injury for operating and specialist personnel!

Caution

Do not operate without finger guard and safety devices.

Before threading, changing bobbin and needle, cleaning etc. **switch off main switch.**

1.04 Important points for the user

- This Instruction Manual is an integral part of the machine and must be available to the operating personnel at all times.
- The Instruction Manual must be read before operating the machine for the first time.
- The operating and specialist personnel is to be instructed as to the safety equipment of the machine and regarding safe work methods.
- It is the duty of the user to only operate the machine in perfect running order.
- It is the obligation of the user to ensure that none of the safety mechanisms are removed or deactivated.
- It is the obligation of the user to ensure that only authorized persons operate and work on the machine.

Further information can be obtained from your PFAFF agent.

1.05 Operating and specialist personnel

1.05.01 Operating personnel

Operating personnel are persons responsible for the equipping, operating and cleaning of the machine as well as for taking care of problems arising in the sewing area.

The operating personnel is required to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- never use any working methods which could adversely affect the safety of the machine!
- not wear loose-fitting clothing or jewelery such as chains or rings!
- also ensure that only authorized persons have access to the potentially dangerous area around the machine!
- always immediately report to the person responsible any changes in the machine which may limit its safety!

1.05.02 Specialist personnel

Specialist personnel are persons with a specialist education in the fields of electrics, electronics and mechanics. They are responsible for the lubrication, maintenance, repair and adjustment of the machine.

The specialist personnel is obliged to observe the following points and must:

- always observe the Notes on Safety in the Instruction Manual!
- switch off the On/Off switch before carrying out adjustments or repairs, and ensure that it cannot be switched on again unintentionally!
- wait until the luminous diode on the control box is no longer blinking or on before beginning adjustment or repair work.
- never work on parts which are still connected to the power supply! Exceptions are explained in the regulations EN 50110.
- replace the protective coverings and close the electrical control box afer all repairs or maintenance work!

1.06 Danger warnings

A working area of **1 m** must be kept free both in front of and behind the machine, so that easy access is possible at all times.

Never put your hands or fingers in the sewing area during sewing!
Danger of injury by the needle!

While setting or adjusting the machine do not leave any objects on the table nor in the needle plate area! Objects may be trapped or flung out of the machine!

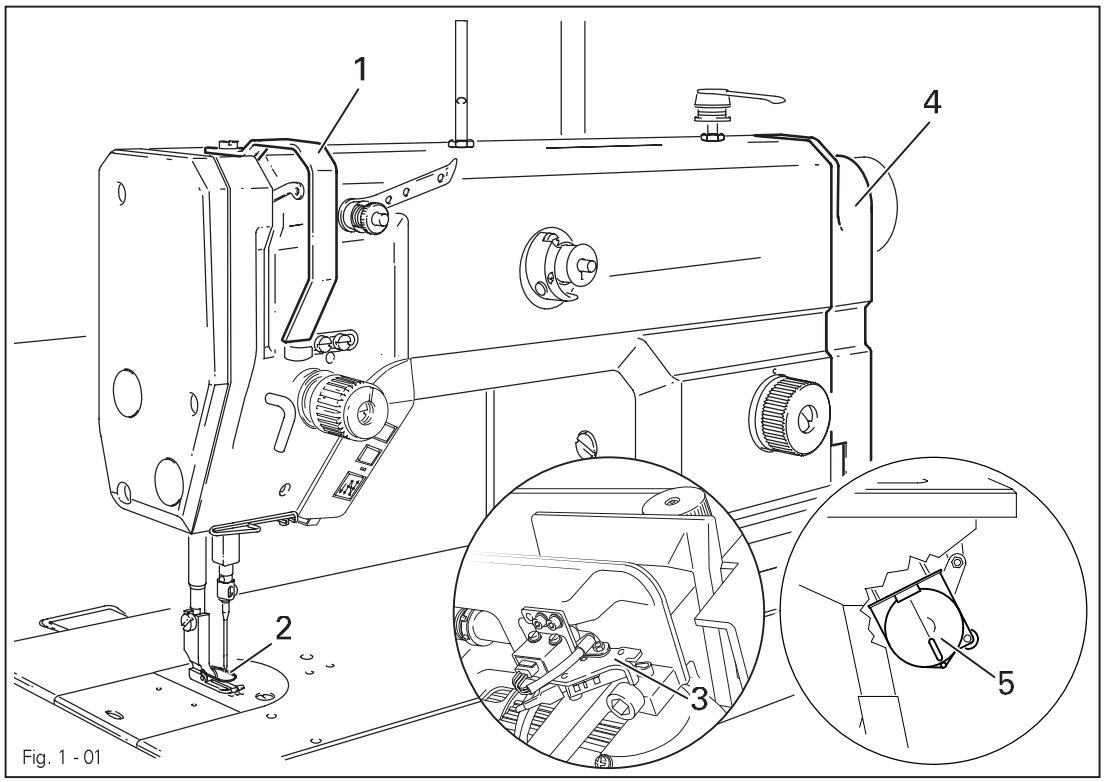


Fig. 1 - 01

Do not run the machine without take-up lever guard **1!**
Danger of injury by moving take-up lever!

Do not run the machine without finger guard **2!**
Danger of injury by up and down movement of needle!

Do not operate machines with integrated motor without start inhibitor **3!**
Danger of injury if the machine is started accidentally!

If an external motor is used, do not operate the machine without the belt guards **4** and **5!**
Danger of injury by the drive belt!

2 Proper use

The **PFAFF 1181** is an single-needle ultra-high-speed seamer with compound feed
The **PFAFF 1183** is an single-needle ultra-high-speed seamer with drop feed
The **PFAFF 1181-D** is an oil-free single-needle high-speed seamer with compound feed
The **PFAFF 1183-D** is an oil-free single-needle high-speed seamer with drop feed

These machines are used in the industry for sewing lockstitch seams.

Any and all uses of this machine which have not been approved of by the manufacturer are considered to be inappropriate! The manufacturer cannot be held liable for any damage caused by the inappropriate use of the machine! The appropriate use of the machine includes the observance of all operational, adjustment, maintenance and repair measures required by the manufacturer!

3 Specifications ▲

3.01 PFAFF 1181, PFAFF 1181-D, PFAFF 1183, PFAFF 1183-D

Stitch type: ..... 301 (lockstitch)
Needle system: ..... 134 or 134 KK on subclass -731/01

Needle size in 1/100 mm:
Version A: ..... 60 - 70
Version B: ..... 80 - 100
Version CN: ..... 110 - 120

Effective balance wheel diameter: ..... 65 mm
Fabric clearance: ..... 9 - 13 mm
Clear workspace width: ..... 260 mm
Clear workspace height: ..... 125 mm

Bed-plate dimensions: ..... 476 x 177 mm

Sewing head dimensions:
Length: ..... approx. 550 mm
Width: ..... approx. 180 mm
Height (above table): ..... approx. 300 mm

Max. stitch length:
Version A: ..... 3,0 mm
Version B: ..... 4.5 mm
Version CN: ..... 6.0 mm

Max. speed PFAFF 1181/ 1183
Version A and B: ..... 5500 spm ◆
Subclass -731/01: ..... 4500 spm ◆
Subclass -948/51: ..... 5000 spm ◆
Subclass -8/44: ..... 3000 spm ◆
Version CN: ..... 3800 spm ◆

Max. speed PFAFF 1181-D / 1183-D
Version A and B: ..... 4000 spm ◆
Subclass -8/44: ..... 3000 spm ◆

Needle bar stroke: ..... 30 or 36 mm

Power connection:
Operating voltage: ..... 230 V ± 10 %, 50/60 Hz, single-phase
Max. input: ..... 400 VA
Fuse: ..... 1 x 16 A, inert

Noise data:
Emission sound level at the workplace at appropriate speed
(Noise measurement in accordance with DIN 45 635-48-A-1, ISO 11204, ISO 3744, ISO 4871)
PFAFF 1181-D at = 3200 spm: ..... LpA < 76,0 dB(A) ■
PFAFF 1183-D at = 3200 spm: ..... LpA < 76,5 dB(A) ■
PFAFF 1181 at 4400 spm: ..... LpA < 80,0 dB(A) ■
PFAFF 1183 at 4400 spm: ..... LpA < 80,5 dB(A) ■

Net weight of sewing head: ..... approx. 30 kg
Gross weight of sewing head: ..... approx. 38 kg

▲ Subject to technical alterations
◆ 3,800 s.p.m. with 36 mm needle bar stroke
■ K_{pA} = 2,5 dB

3.02 Versions and subclasses

Version A: ..... for sewing light materials
Version B: ..... for sewing medium materials
Version CN: ..... for sewing medium-heavy materials

Work aids:
Subclass -731/01 ..... edge trimmer
Subclass -900/24 ..... thread trimmer
Subclass -909/14 ..... Thread trapper
Subclass -910/06 ..... automatic foot lift
Subclass -911/37 ..... automatic back-tacking mechanism

4 Disposal of Machine

- Proper disposal of the machine is the responsibility of the customer.
- The materials used for the machine are steel, aluminium, brass and various plastic materials. The electrical equipment comprises plastic materials and copper.
- The machine is to be disposed of according to the locally valid pollution control regula-tions; if necessary, a specialist ist to be commissioned.

Care must be taken that parts soiled with lubricants are disposed of separately according to the locally valid pollution control regulations!

5 Transportation, packing and storage

5.01 Transportation to customer's premises

The machines are delivered completely packed.

5.02 Transportation inside the customer's premises

The manufacturer cannot be made liable for transportation inside the customer's premises nor to other operating locations. It must be ensured that the machines are only transported in an upright position.

5.03 Disposal of packing materials

The packing materials of this machine comprise paper, cardboard and VCE fibre. Proper disposal of the packing material is the responsibility of the customer.

5.04 Storage

If the machine is not in use, it can be stored as it is for a period of up to six months, but It should be protected against dust and moisture.
If the machine is stored for longer periods, the individual parts, especially the surfaces of moving parts, must be protected against corrosion, e.g. by a film of oil.

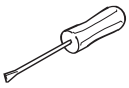
6 Explanation of symbols

In this instruction manual, work to be carried out or important information is accentuated by symbols. These symbols have the following meanings:

Note, information

Cleaning, care

Lubrication



Maintenance, repairs, adjustment, service work
(only to be carried out by technical staff)

7 Controls

7.01 On/off switch

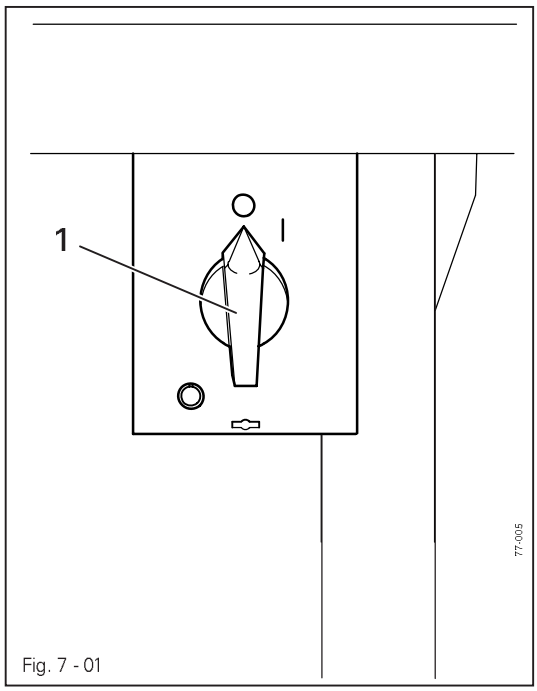


Fig. 7 - 01

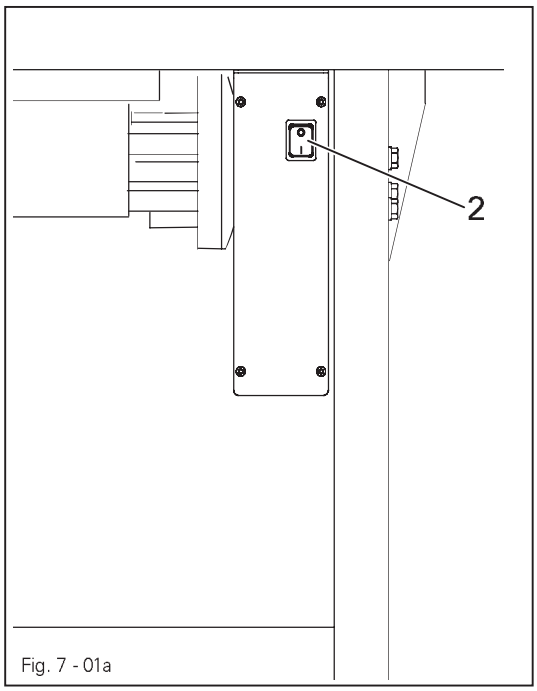


Fig. 7 - 01a

Machines with Quick-EcoDrive

- The power supply to the machine is switched on or off by turning switch **1**.

Machines with Quick-PicoDrive

- Operate main switch **2** to switch the machine on or off.

7.02 Keys on the machine head (only for machines with -911/..)

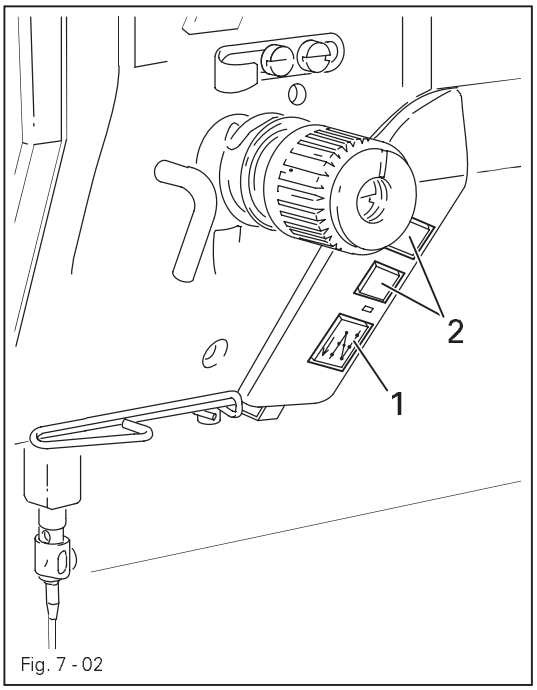


Fig. 7 - 02

- As long as key **1** is pressed during sewing, the machine sews in reverse.
- Keys **2** can be used for parameter settings (see motor instruction manual).

7.03 Pedal

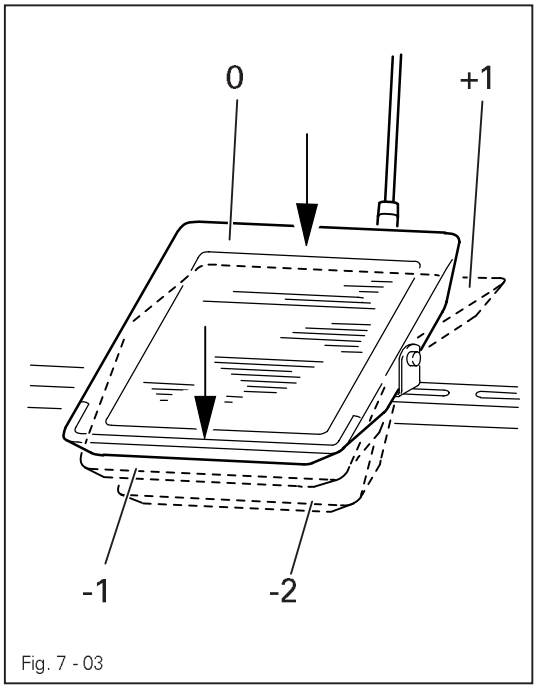


Fig. 7 - 03

- With the on/off switch on
  - 0 = Machine stop
  - +1 = Sew
  - - 1 = Raise presser foot (for machines with -910/06)
  - - 2 = Trim thread (for machines with -900/24)

7.04 Lever for lifting the presser foot

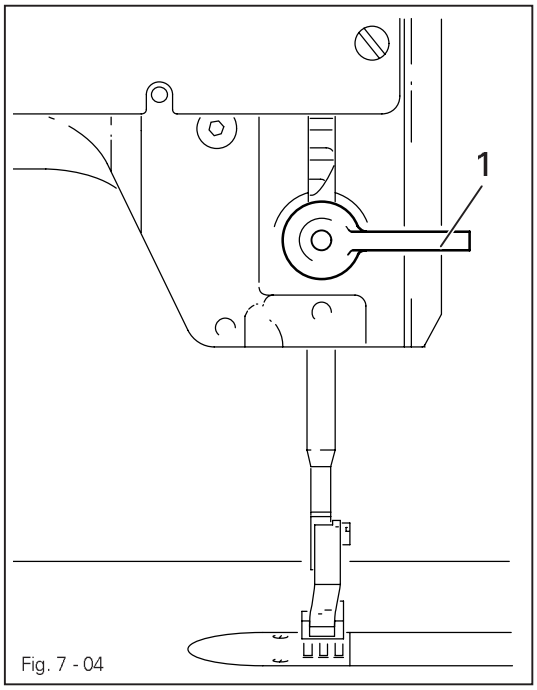


Fig. 7 - 04

- The presser foot is raised by turning lever 1.

7.05 Feed regulator disk / Reverse feed lever

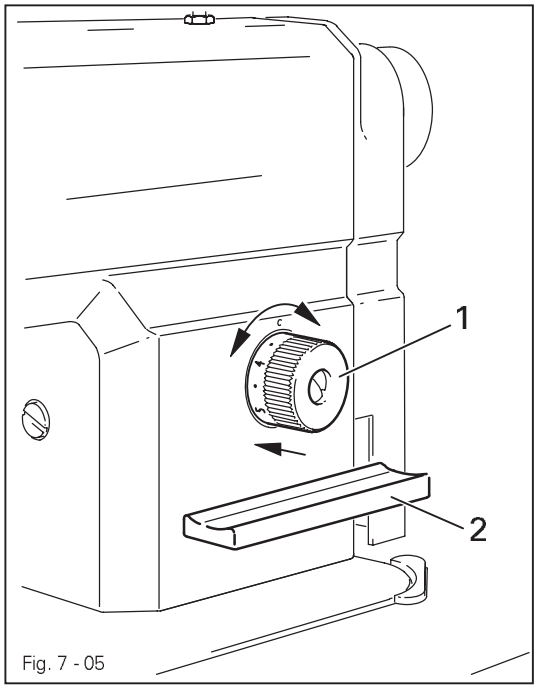


Fig. 7 - 05

- The stitch length can be set by simultaneously applying pressure to disk **1** and turning it to the desired setting.
- For reverse sewing press lever **2.**

7.06 Knee lever

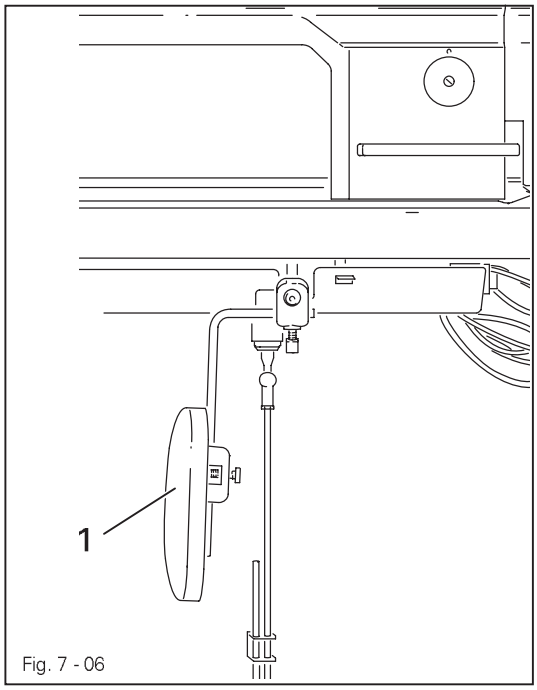


Fig. 7 - 06

- By pressing the knee lever **1** in the direction of the arrow, the presser foot is raised.

7.07 Thread trimmer -731/01

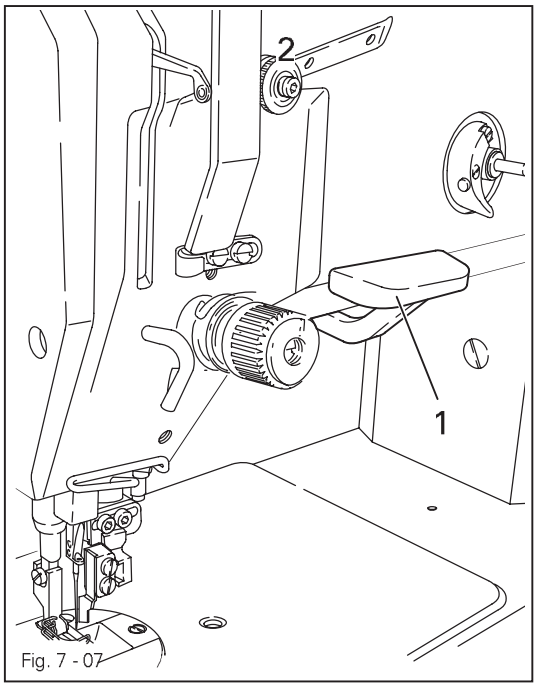


Fig. 7 - 07

Do not touch the running motor! Danger of injury!

- By pressing or raising key **1**, the edge trimmer is switched on or off.

7.08 Control panel (only on machines with Quick-Eco drive or Quick-Pico drive)

The description can be found in the separate instruction manual for the control panel.

8 Installation and commissioning

The machine must only be mounted and commissioned by qualified personnel!
All relevant safety regulations are to be observed!

If the machine is delivered without a table, it must be ensured that the frame and the table top which you intend to use can hold the weight of the machine and the motor. It must be ensured that the supporting structure is sufficiently sturdy, including during all sewing operations.

8.01 Installation

The site where the machine is installed must be provided with suitable connections for the electric current, see Chapter **3** Specifications.
It must also be ensured that the standing surface of the machine site is firm and horizontal, and that sufficient lighting is provided.

The method of packaging used requires that the table top be lowered for transport. The following is a description of how to adjust the height of the table top.

8.01.01 Adjusting the table-top height

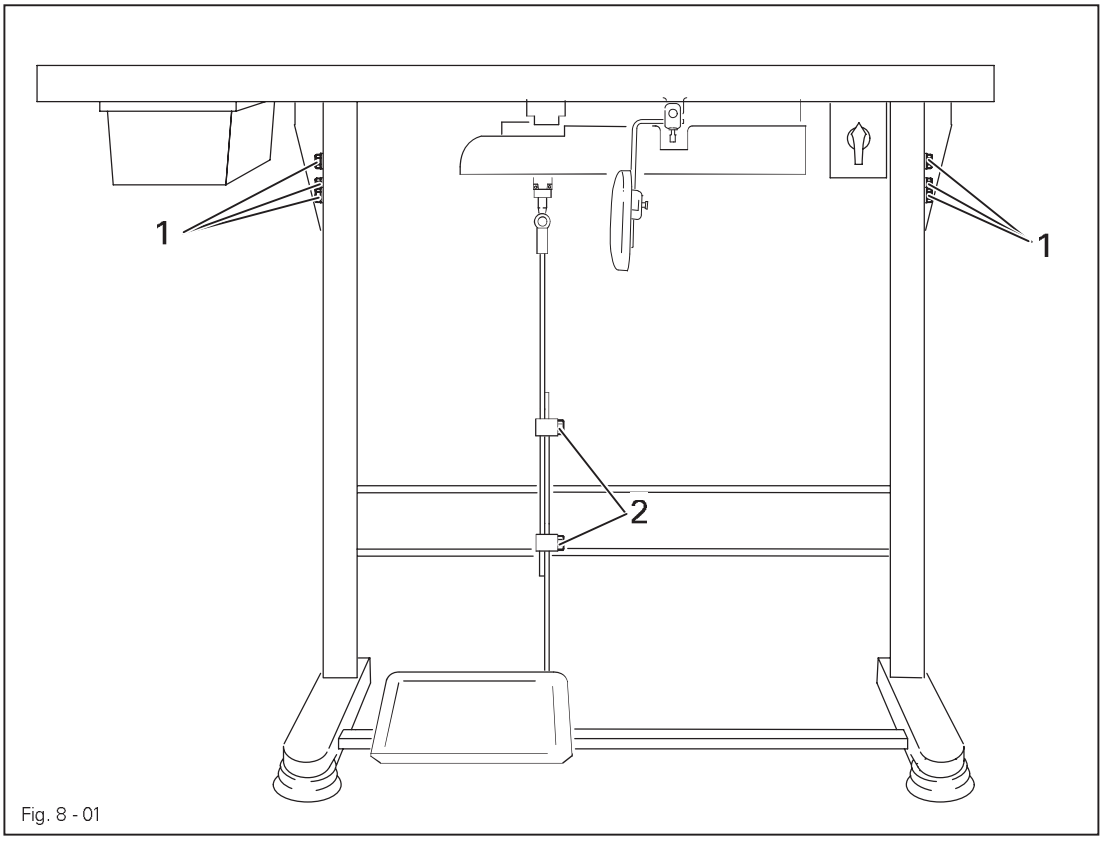


Fig. 8 - 01

- Loosen screws **1** and **2** and set the desired table-top height
- Tighten screws **1** well.
- Adjust the position of the pedal so that you can operate it comfortably and tighten screw **2**.

8.01.02 Adjusting the V-belt tension

This step is eliminated for integrated sewing motors.

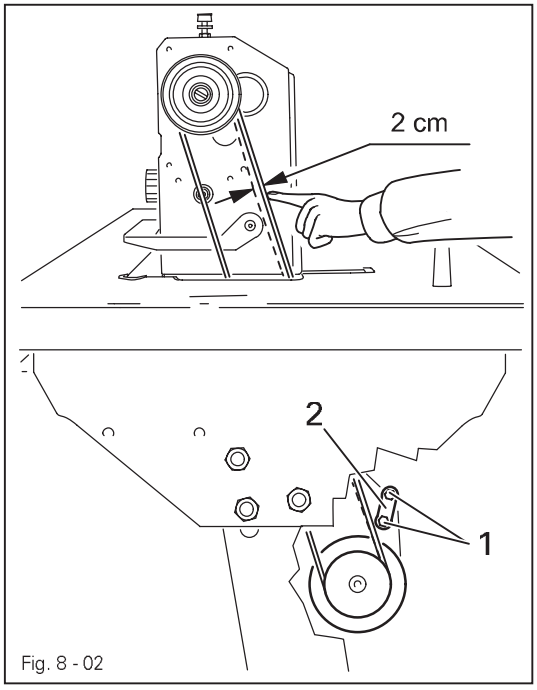


Fig. 8 - 02

- Loosen nuts **1.**
- Tighten the V-belt with belt take-up hanger **2.**
- Tighten nuts **1.**

A quick motor is shown in Fig. **8-02.** If another motor is used, carry out this step according to the instructions in the motor instruction manual.

8.01.03 Mounting the upper V-belt guard

This step is eliminated for integrated sewing motors.

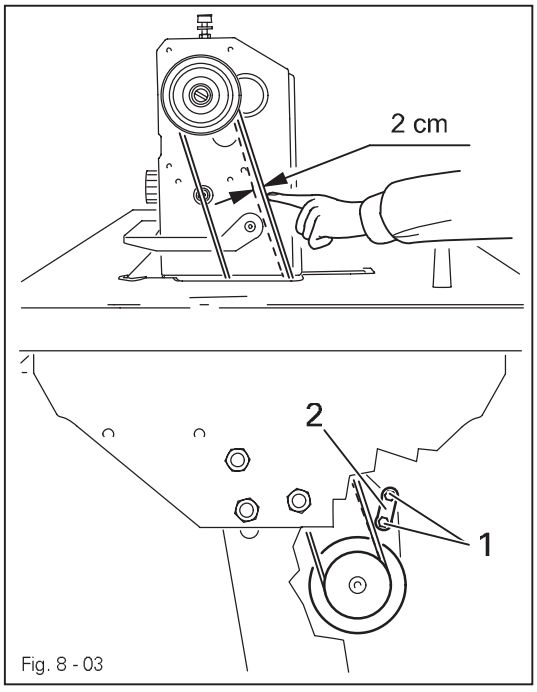
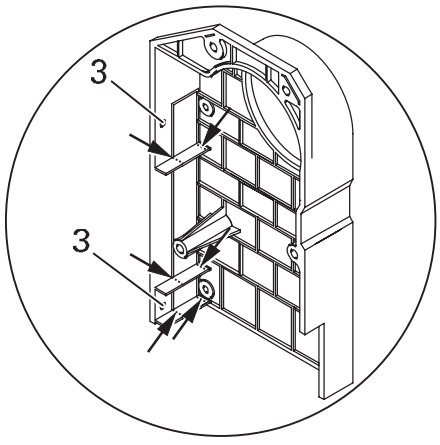


Fig. 8 - 03

- Break out the belt guard case **1** at the points marked by the arrows.
- Fasten belt guard **2** in holes **3.**
- Attach belt guard **4** to the machine case with screws **5.**



8.01.04 Mounting the lower V-belt guard

This step is eliminated for integrated sewing motors.

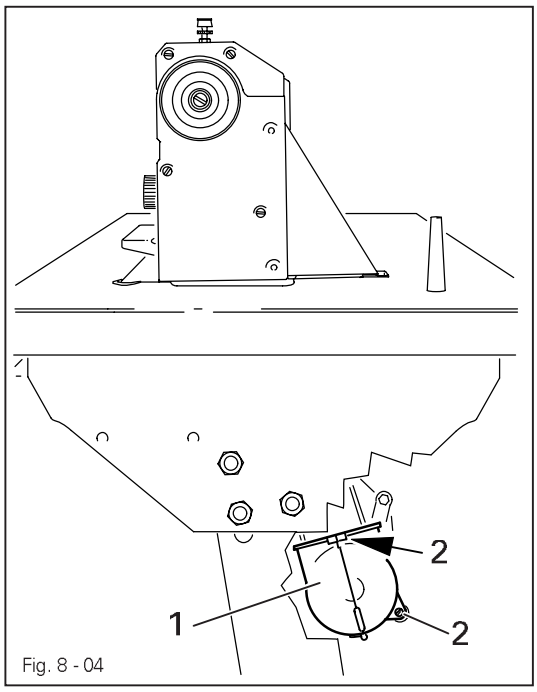


Fig. 8 - 04

- Align belt-guard **1** in such a way that both the motor pulley and the V-belt run freely.
- Tighten screws **2**.

A quick motor is shown in Fig. **8-04.** If another motor is used, carry out this step according to the instructions in the motor instruction manual.

8.01.05 Mounting the spool holder

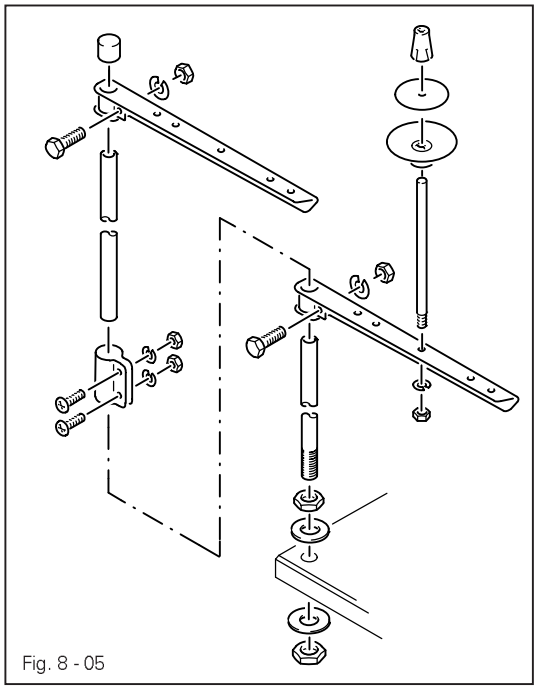


Fig. 8 - 05

- Mount the spool holder as shown in Fig. **8-05.**
- Insert the spool holder into the hole in the table top and fasten it with the nuts enclosed.

Table top mounting and circuit diagrams (see Chapter **11**)

8.02 Connecting the plug-in connections and earth cables

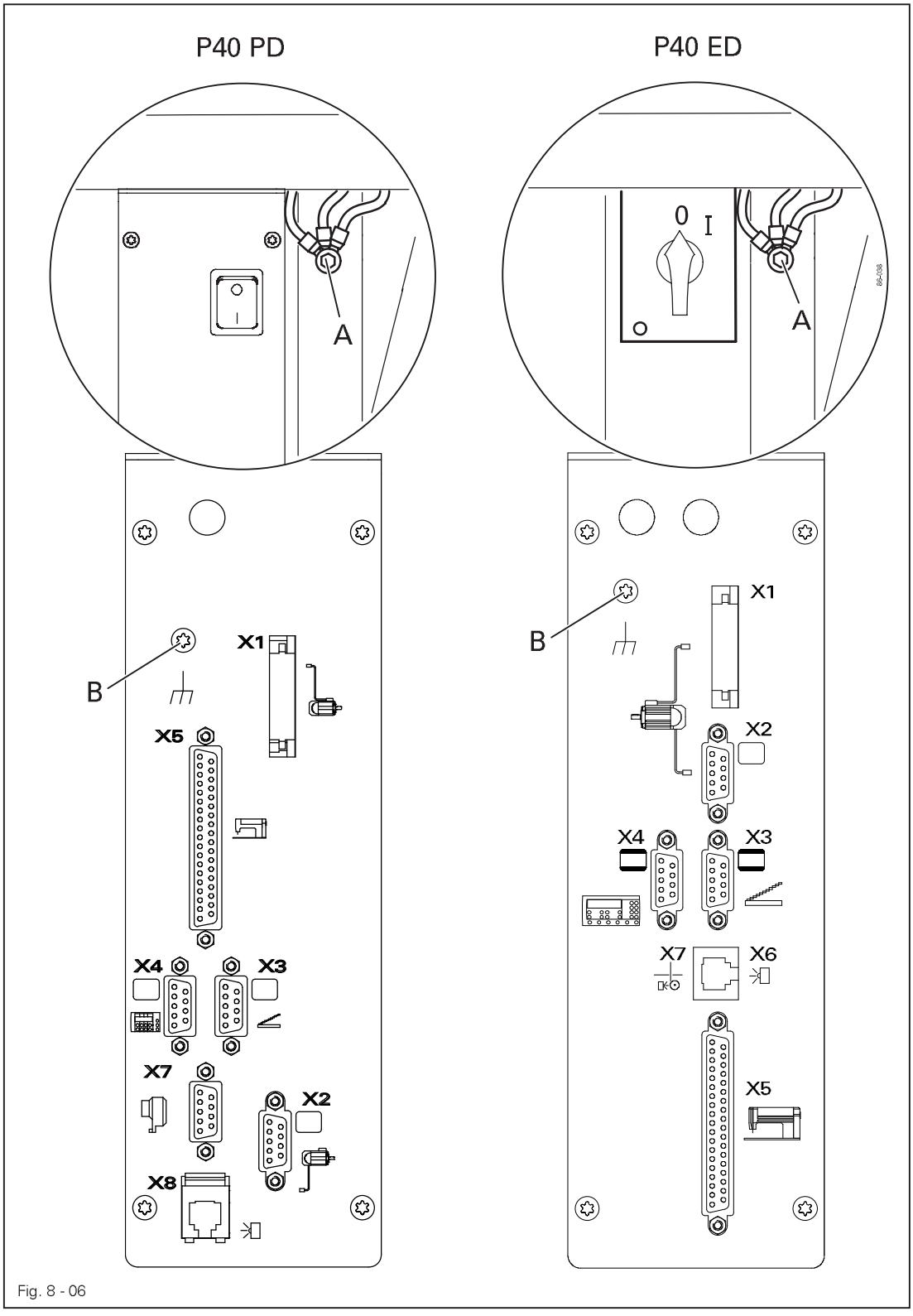


Fig. 8 - 06

- Connect all plugs as labelled to the control box .
- Screw the earth cable from the sewing head and the main switch to earth point A.
- Connect earth point **A** to earth point **B** with earth cable.
- Fasten the earth cable from plug **X1** to earth point B.

8.03 Commissioning the machine

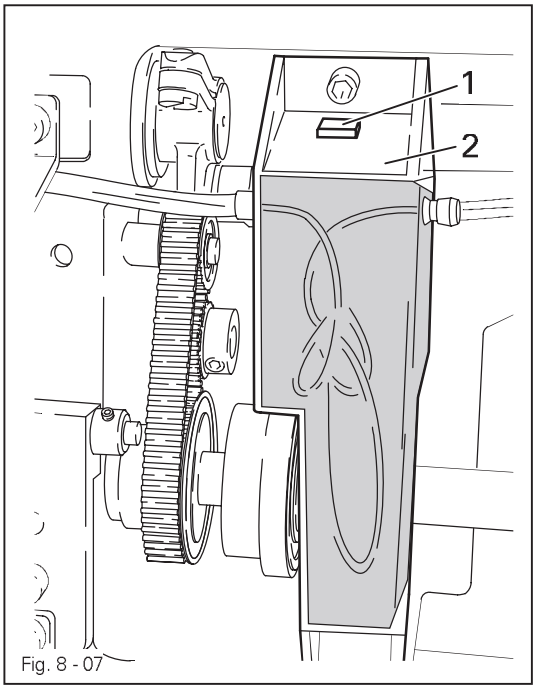


Fig. 8 - 07

- Check the machine, especially the electrical leads, for any damage.
- Remove pin **1** of the oil reservoir **2** (Fig. 8 - 07).

The pin serves only to protect the machine from damage during transport and must not be used when sewing.

- Clean the machine thoroughly and oil it (see chapter **10 Care and maintenance**).
- Have skilled personnel check if the machine can be operated with the available mains voltage.

Do not operate the machine if there is any discrepancy.

Before starting the machine for the first time, have specialists check whether the parameter **799** (machine class) is set at "**1**" or "**2**", depending on the control unit, and parameter **800** (rotation direction) is set at "**1**". If necessary have this adjustment carried out (see Chapter **8.05 Basic setting of the machine drive**).

The machine may only be connected to an earthed socket!

8.04 Switching the machine on/off

- Switch the machine on (see Chapter **7.01, On/off switch**).

8.05 Basic position of the machine drive unit

8.05.01 On machines with Quick-EcoDrive and control unit P40 ED

- Switch on the machine.
- Press the **TE/speed key twice** to select the input mode.
- Select parameter "**798**" by pressing the corresponding **+/- key**, and select service level **C**, see Chapter **Selecting the user level** in the instruction manual for the control panel.
- By pressing the corresponding **+/- key** select the parameter "**799**" (Selecting the machine class).
- Check whether value "**1**" is set, and correct it if necessary.

If the parameter has to be altered, operate the **TE/Speed** key and then switch off the machine and switch it on again. Then select service level C again as described above.

- By pressing the corresponding **+/- key**, select parameter "**800**" (selecting the sewing direction).
- By pressing the corresponding **+/- key**, select the value for the parameter at "**0**".
- By pressing the corresponding **+/- key**, select parameter "**700**".
- Sew a stitch by operating the pedal.
- Turn the balance wheel in the sewing direction until the descending needle is level with the top edge of the needle plate.
- Then check the parameter values listed in the parameter list (see Chapter **10.04 Parameter Settings**) and adjust them if necessary.
- Conclude the adjustment of the sewing motor by pressing the **TE/Speed key**.

8.05.02 On machines with Quick-PicoDrive and control unit P40 PD

- Switch on the machine.
- Call up the parameter input by pressing the "**scroll**" key.
- To switch the function keys to input (LED in the **TE** key lights up), press the TE key.
- By pressing the corresponding **+/- keys**, select parameter "**798**" and service level C, see Chapter **Selecting the User Level** in the separate Control Panel Instruction Manual.
- Select parameter "**799**" by pressing the corresponding **+/- keys.**
- Check whether the value is set at "**2**" and alter if necessary.
- Switch the machine off and then on again.
- Select parameter "**800**" by pressing the corresponding **+/- keys.**
- Check whether the value is set at "**0**" (balance wheel turns towards the operator) and alter if necessary.
- Select parameter "**802**" by pressing the corresponding **+/- keys.**
- Check whether the value is set at "**0**" (= no reduction ratio) and alter if necessary.
- .By pressing the corresponding **+/- key**, select parameter "**700**"
- Sew a stitch by operating the pedal.
- Turn the balance wheel in the sewing direction until the descending needle is level with the top edge of the needle plate.
- Conclude the adjustment of the sewing motor by pressing the "**scroll**" key

8.06 Start inhibitor

8.06.01 Mounting the start inhibitor

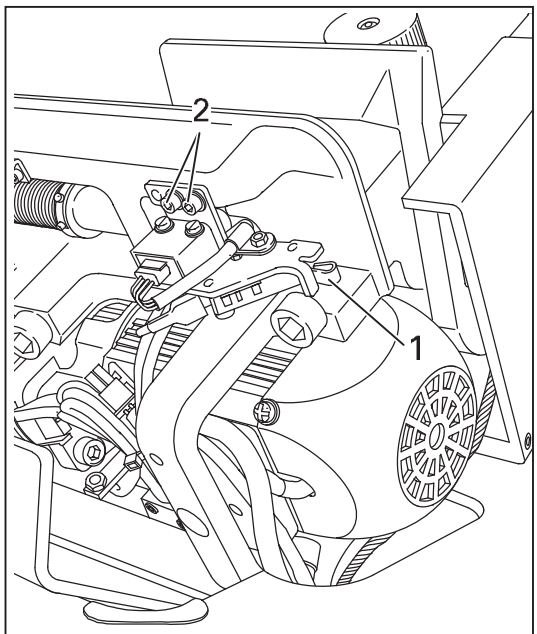


Fig. 8 - 07

- Set the machine into the table top.
- After loosening screws **2,** set switch **1** so that it is activated when the sewing head is in an upright position.
- In this position tighten screws **2.**

8.06.02 Checking the start inhibitor function

- Switch the machine on at the main switch and tilt back the sewing head.
- The error message "**Error 9**" must appear on the control panel.
- If the message does not appear, check the setting of safety switch **1.**
- After the sewing head has been returned to the upright position, the machine is ready for operation again.

9 Preparation

All regulations and instructions in this Instruction Manual are to be observed! Special attention is to be paid to the safety regulations!

All preparation work is only to be carried out by appropriately trained personnel. Before all preparation work, the machine is to be separated from the electricity supply by removing the plug from the mains or switching off the On/Off switch!

9.01 Inserting the needle

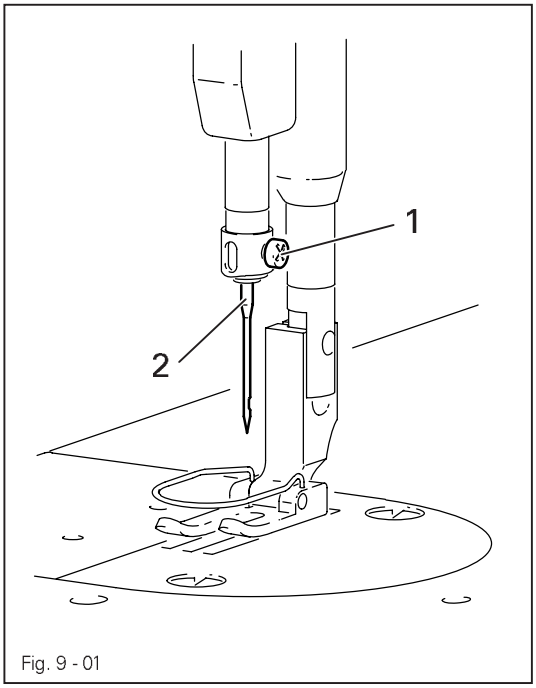


Fig. 9 - 01

Switch off the machine! Danger of injury due to unintentional starting of the machine!

Only use needles from the system intended for the machine, see Chapter **3 Specifications.**

- Raise needle bar.
- Loosen screw **1** and insert needle **3** until you feel it stop.
- The long needle groove must be aligned in the direction of the machine head.
- Tighten screw **1.**

9.02 Winding the bobbin thread, adjusting the thread tension

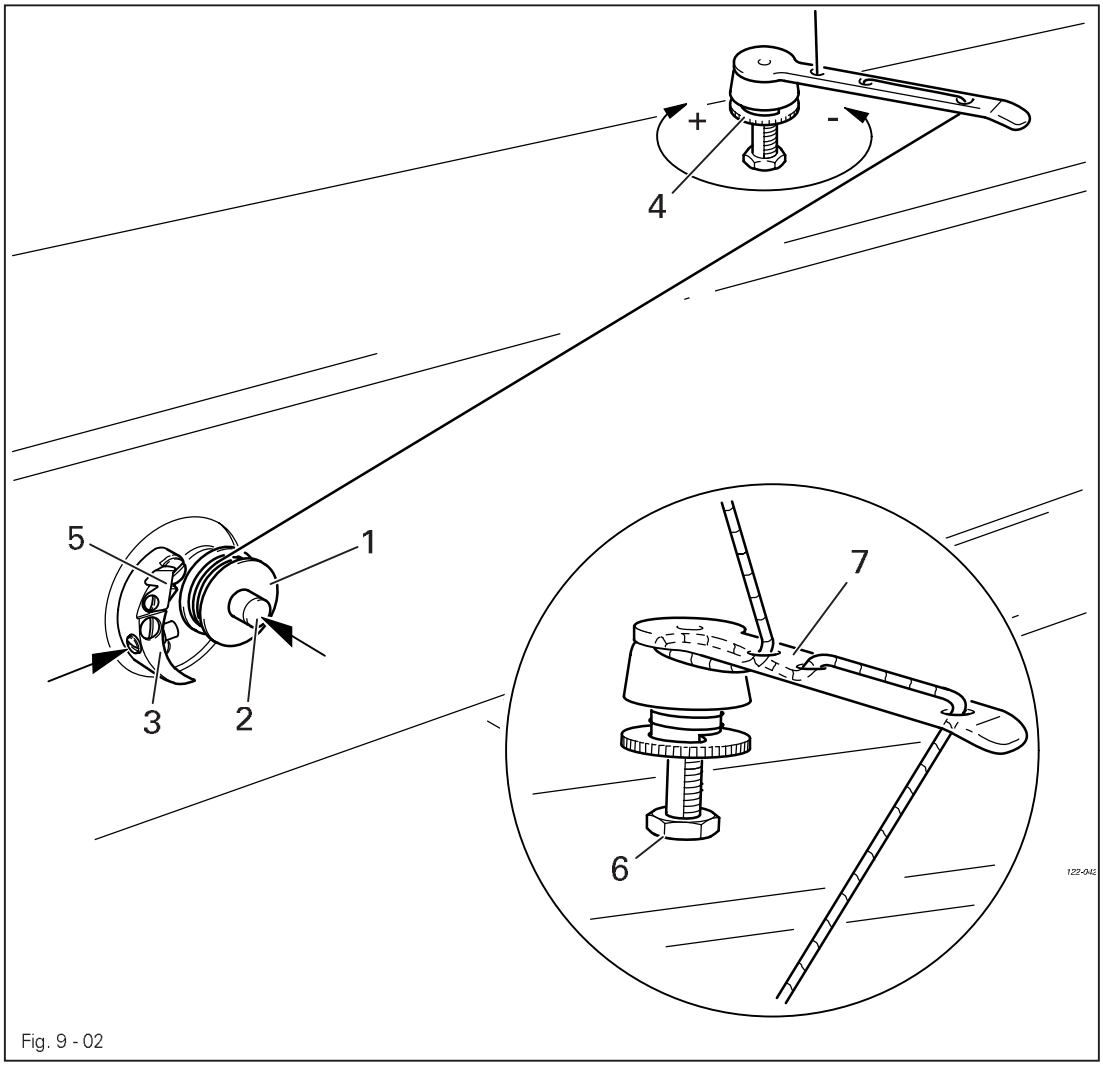


Fig. 9 - 02

- Place an empty bobbin **1** onto bobbin shaft **2**.
- Thread the bobbin in accordance with Fig. **9-02** and wind it anti-clockwise around bobbin **1** a few times.
- Switch on the bobbin winder while at the same time pressing bobbin winder spindle **2** and lever **3**.

The bobbin fills up during sewing.

If the machine is only being used to wind the bobbin (without sewing), a bobbin case must be inserted in the hook! (Danger of damage to the hook).

- The tension of the thread on bobbin **1** can be adjusted with knurled screw **4**.
- The bobbin winder stops automatically when bobbin **1** is full.
- Remove the filled bobbin **1** and cut the thread on knife **5**.

If the thread is wound unevenly, loosen nut **6** and turn thread guide **7** accordingly. Retighten nut **6** after the adjustment.

9.03 Removing / Inserting the bobbin case

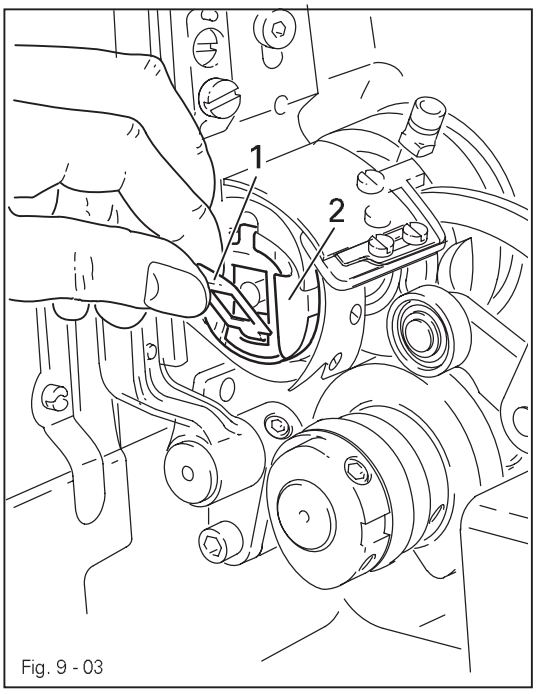


Fig. 9 - 03

Switch off the machine!
Danger of injury due to unintentional starting of the machine!

Removing the bobbin case:

- Tilt back the machine.
- Raise latch **1** and remove bobbin case **2**.

Inserting the bobbin case:

- Press bobbin case **2** until you feel it snap into the bobbin case base.

Return the machine to its upright position using both hands!
Danger of injury by crushing between the machine and the table top!

9.04 Inserting the bobbin case / Adjusting the bobbin thread tension

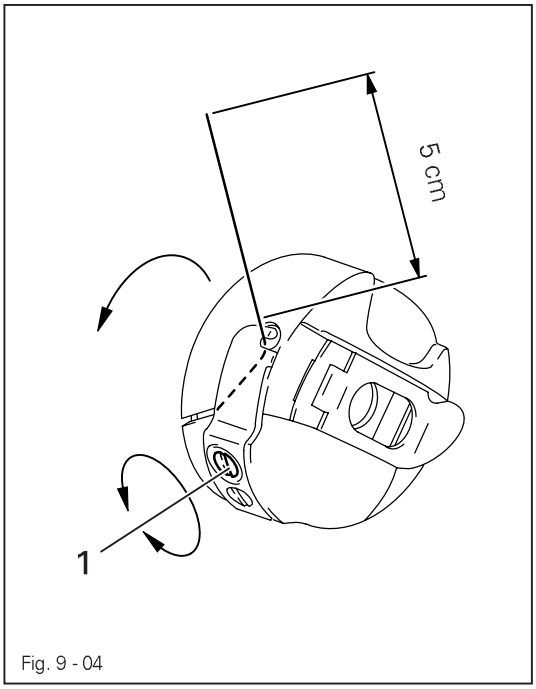


Fig. 9 - 04

- Insert the bobbin into the bobbin case.
- Pass the thread through the slot under the spring according to Fig. **9-04.**
- Pass the thread through the notch.
- Adjust the thread tension by turning screw **1.**

When the thread is pulled, the bobbin must rotate in the direction of the arrow.

9.05 Threading the needle thread / Adjusting the needle thread tension

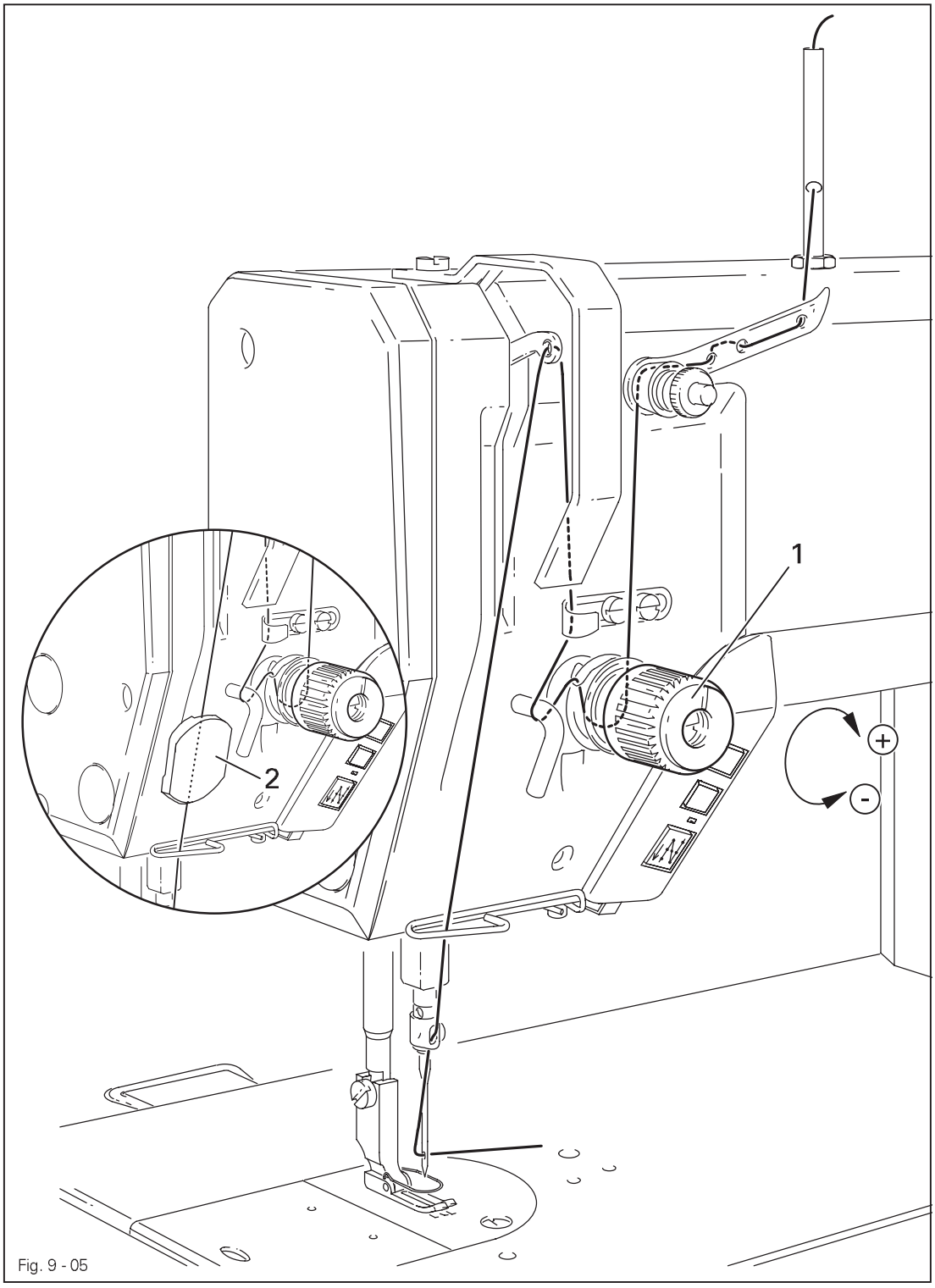


Fig. 9 - 05

Switch off the machine!
Danger of injury due to unintentional starting of the machine!

- Thread the machine as shown in Fig. 9-05.
- On machines with subclass -909/14 also guide the thread through thread trapper 2.
- Adjust the needle thread tension by turning disk 1.

9.06 Adjusting the stitch counter for the bobbin thread control

(only on machines with Quick Motor and P40 (ED) control unit)

Please see the description in the separate control panel instruction manual.
werden.

10 Care and maintenance

10.01 Servicing and maintenance intervals

Clean	daily, more often if in continuous operation
Check oil level	monthly (does not apply to the 1181-D and 1183-D)
Oil the trimmer -731/01	once a week, more often if in continuous operation

These maintenance intervals are calculated for the average running time of a single shift operation. If the machine is operated more than this, shorter intervals are recommended.

10.02 Cleaning the machine

The cleaning cycle required for the machine depends on following factors:

- Single or several shift operation
- Amount of dust resulting from the workpiece

It is therefore only possible to stipulate the best possible cleaning instructions for each individual case.

For all cleaning work the machine must be disconnected from the mains by switching off the on/off switch or by removing the mains plug!
Danger of injury if the machine suddenly starts up .

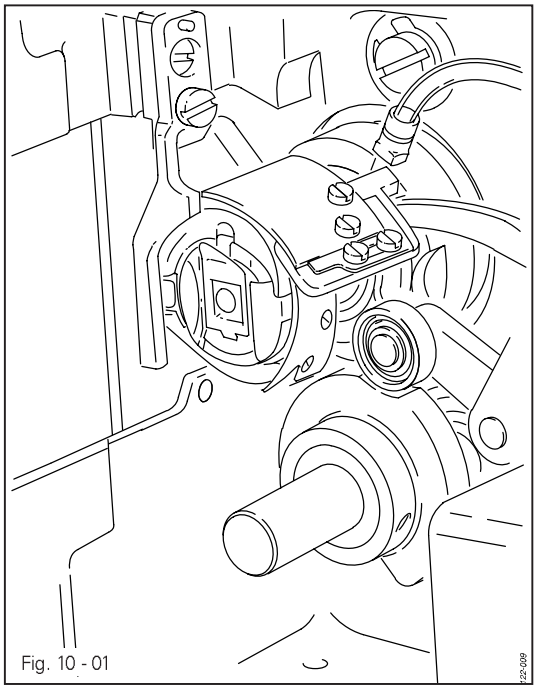


Fig. 10 - 01

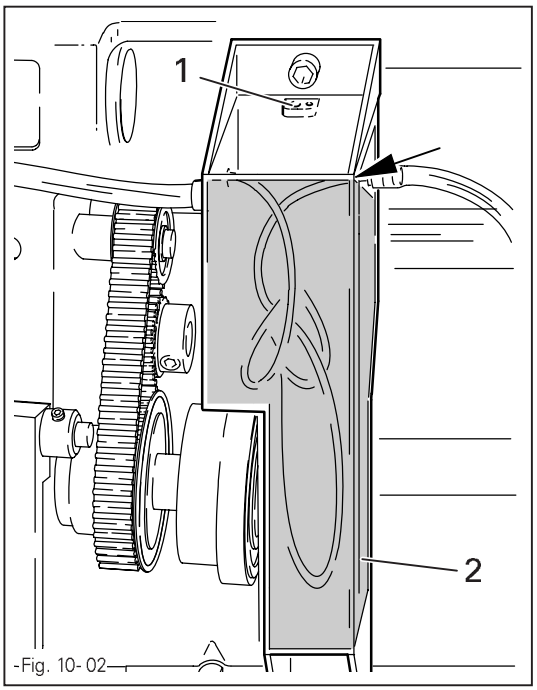
To avoid breakdowns, the following cleaning work is recommended for single shift operation:

- Swing out the cover plate and tilt back the sewing head.
- Clean the hook and hook compartment daily, more often if in continuous operation.

Return the machine to its upright position using **both** hands!
Danger of injury by crushing between the edge of the machine and the table top!

10.03 Topping up the oil tank (does not apply to the 1181-D and 1183-D)

The PFAFF **1181-D** and **1183-D** are totally maintenance-free and run without any oil.



-Fig. 10- 02-

Es muss sich immer Öl im Vorratsbehälter befinden!

- Whenever it is necessary to refill the reservoir, tilt back the machine and let it rest on the sewing head support.
- Fill oil through hole **1** into the reservoir **2** up to the level of the front edge (see arrow).

Use both hands to set the sewing head upright!
Danger of crushing between the sewing head and the table top!

Only use oil with a mean viscosity of **22.0 mm²/s** at **40°C** and a density of **0.865 g/cm³** at 15°C.

We recommend PFAFF sewing machine oil, part no. **280-1-120 144.**

10.04 Oiling the edge trimmer -731/01

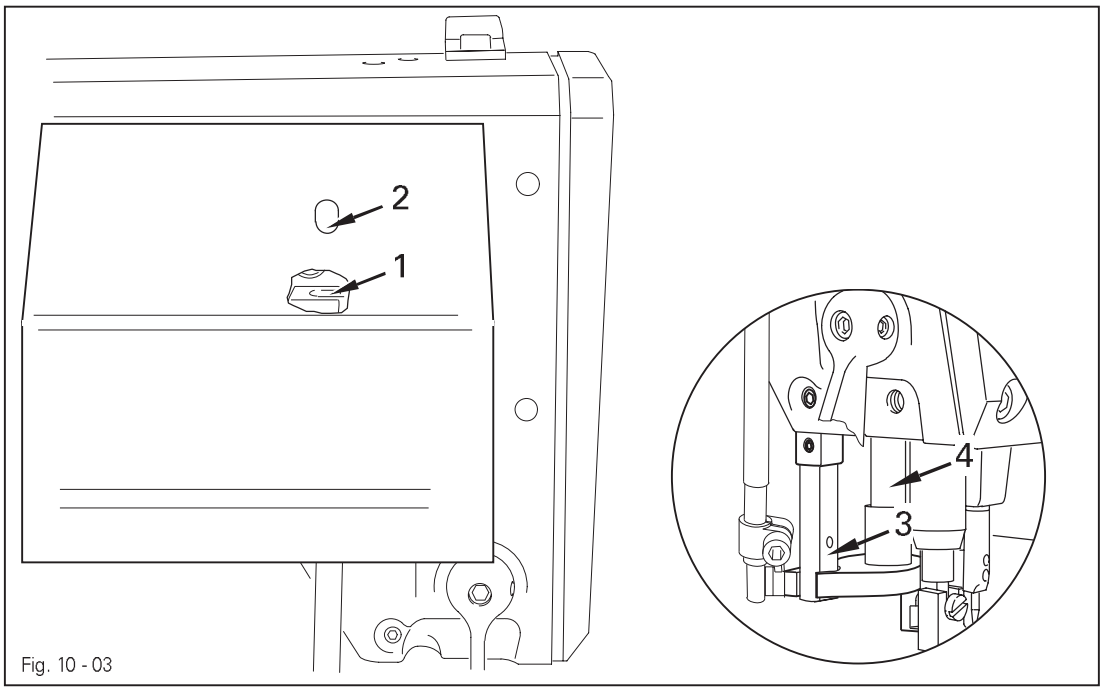
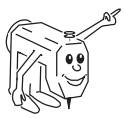


Fig. 10 - 03

- Once a week pour oil on oil sponge **1** through hole **2.**
- Lubricate the guides **3** and **4** once a week.

Only use oil with a mean viscosity of **22.0 mm²/s** at **40°C** and a density of **0.865 g/cm³** at 15°C.



We recommend PFAFF sewing machine oil, part no. **280-1-120 144.**

10.05 Parameter settings

(only on machines with Quick-EcoDrive and control unit P40ED or Quick-PicoDrive and control unit P40PD)

- The selection of the user level and the alteration of parameters is described in the separate instruction manual for the drive unit.

10.05.01 Parameter list

Group	Parameter	Description	User lever	Setting range	Set value P40 ED	Set value P40 PD
1	105	Speed for start backtackl	B, C	300 - 2000	1200	1200
	110	Speed for end backtack	B, C	300 - 2000	1200	1200
6	606	Speed min	B, C	30 - 300	180	180
	607	Speed max.	B, C	300 - 6000	▲	▲
6	609	Cutting speed 1	B, C	60 - 300	180	180
	660	Bobbin thread control 0 = off, 1 = thread monitor, 2 = reverse counter	A, B, C	0 - 2	0	-
	668	Thread wiper/thread blower 1 = on; 0 = off	B, C	0 - 1	0	-
7	700	Needle position 0 (needle reference position	B, C	0 -255	*	*
	702	Needle position 1 (needle lowered)	B, C	0 - 255	90	90
	703	Needle position 2 (take-up lever raised)	B, C	0 - 255	236	236
	705	Needle position 5 (end cutting signal 1)	B, C	0 - 255	200	200
	706	Needle position 5 (start cutting signal 2)	B, C	0 - 255	136	136
	707	Needle position 9 (start thread tension release/start thread catcher)	B, C	0 - 255	164	164
	760	Multiplier for the fixed value (200) stitch count	A,B, C	0 - 250	5	-
	797	Hardwaretest (OFF / ON),	B, C		OFF	OFF

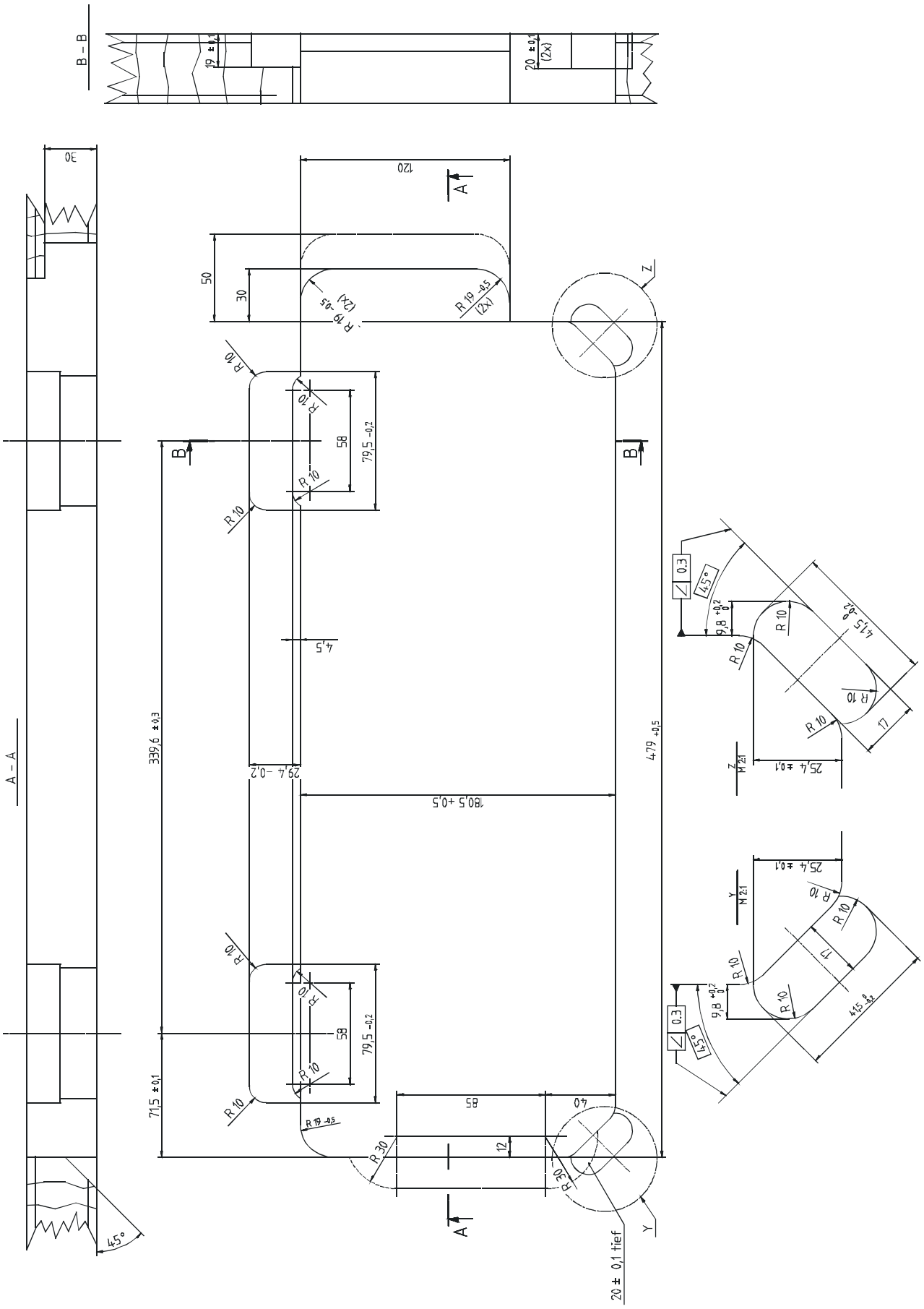
▲ See Chapter 3 Specifications

* Adjustment see Chapter **8.05 Basic position of the machine drive unit.**

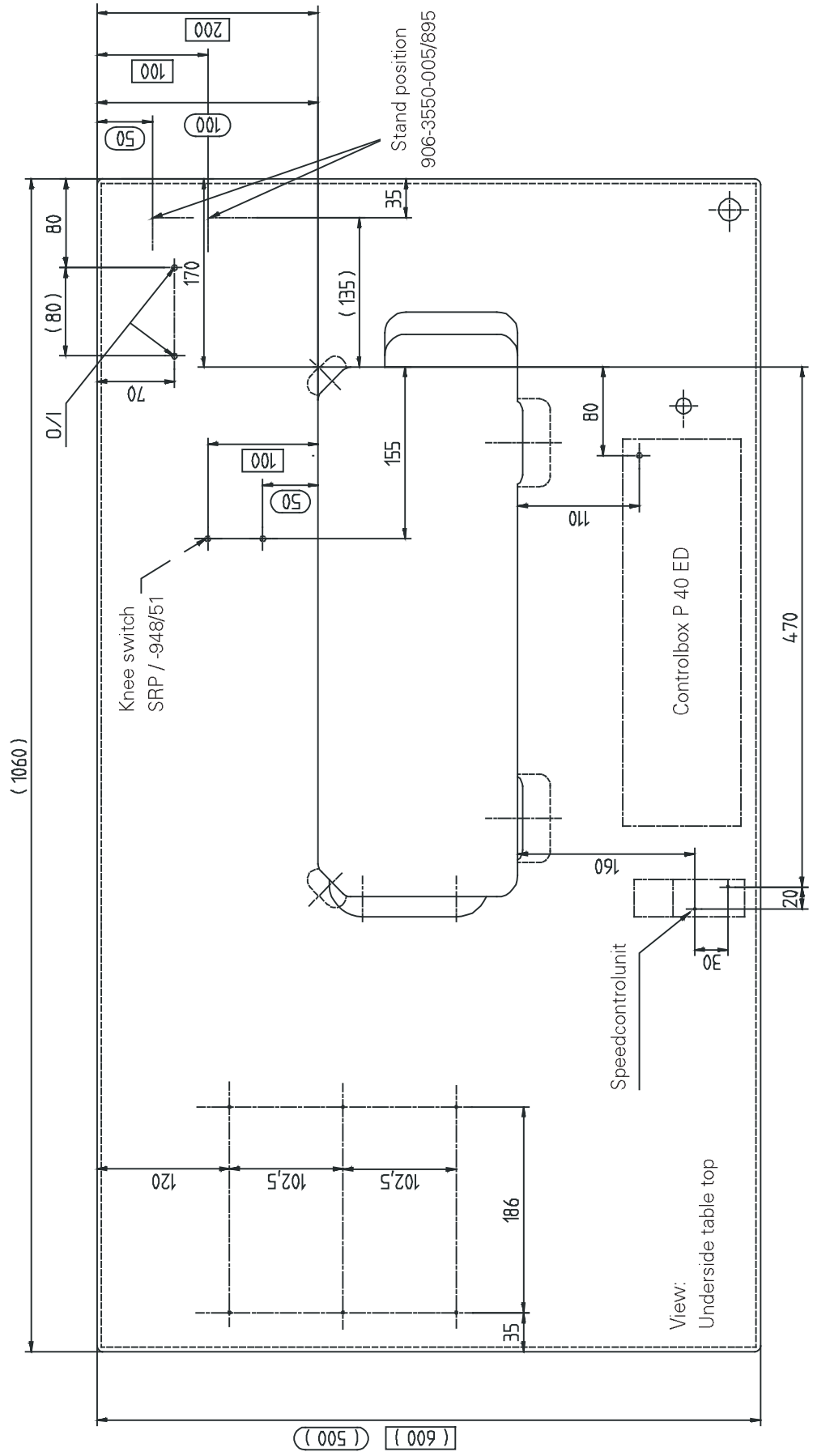
Group	Parameter	Description	User lever	Setting range	Set value P40 ED	Set value P40 PD
7	799	Selected machine class	C	1 - 3	1	2
8	800	Rotating direction of the motor	C	0 - 1	0	0
	802	Main drive reduction ratio 0 = 1:1 1 = variable	C	0 - 1	-	0
9	985	Switch on angle for thread trapper	B, C	0 -255	67	67
	986	Switch off angle for thread trapper	B, C	0 -255	206	206
	989	Thread trapper at beginning of seam 1 = yes, 0 = no	B, C	0 - 2	0	0

Further parameters and the description for an internet update of the machine software and reset /cold start of the machine can be found in the instruction manual for the control panel.

11.01 Table top cutout

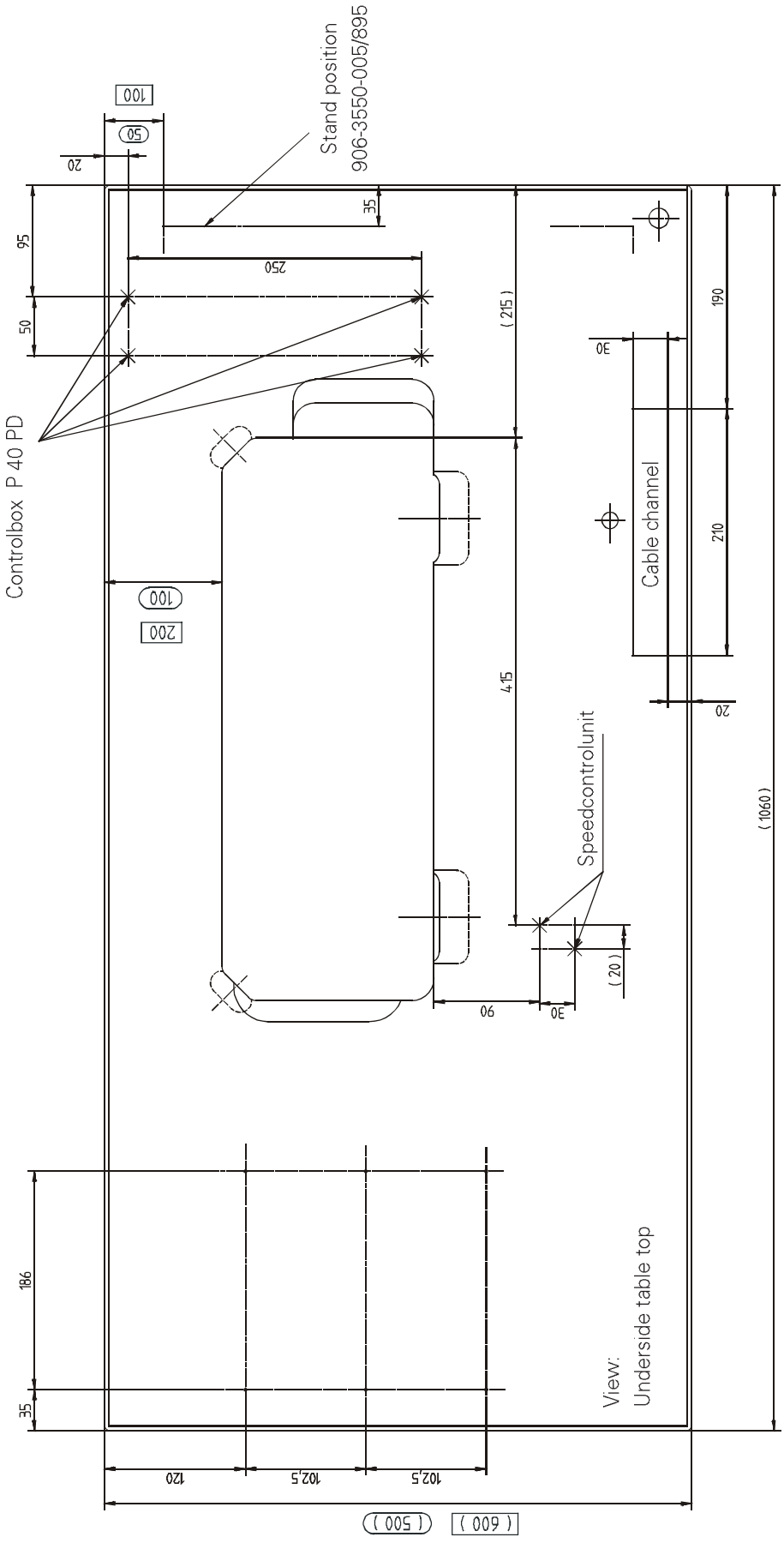


11.02 Mounting the table top (with Quick-EcoDrive and control unit P 40 ED)



91-264 343-95
Vers. 08.12.04

11.03 Mounting the table top (with Quick-PicoDrive and control unit P40 PD)



91-264 384-95
91-264 385-95
Vers. 02.07.07

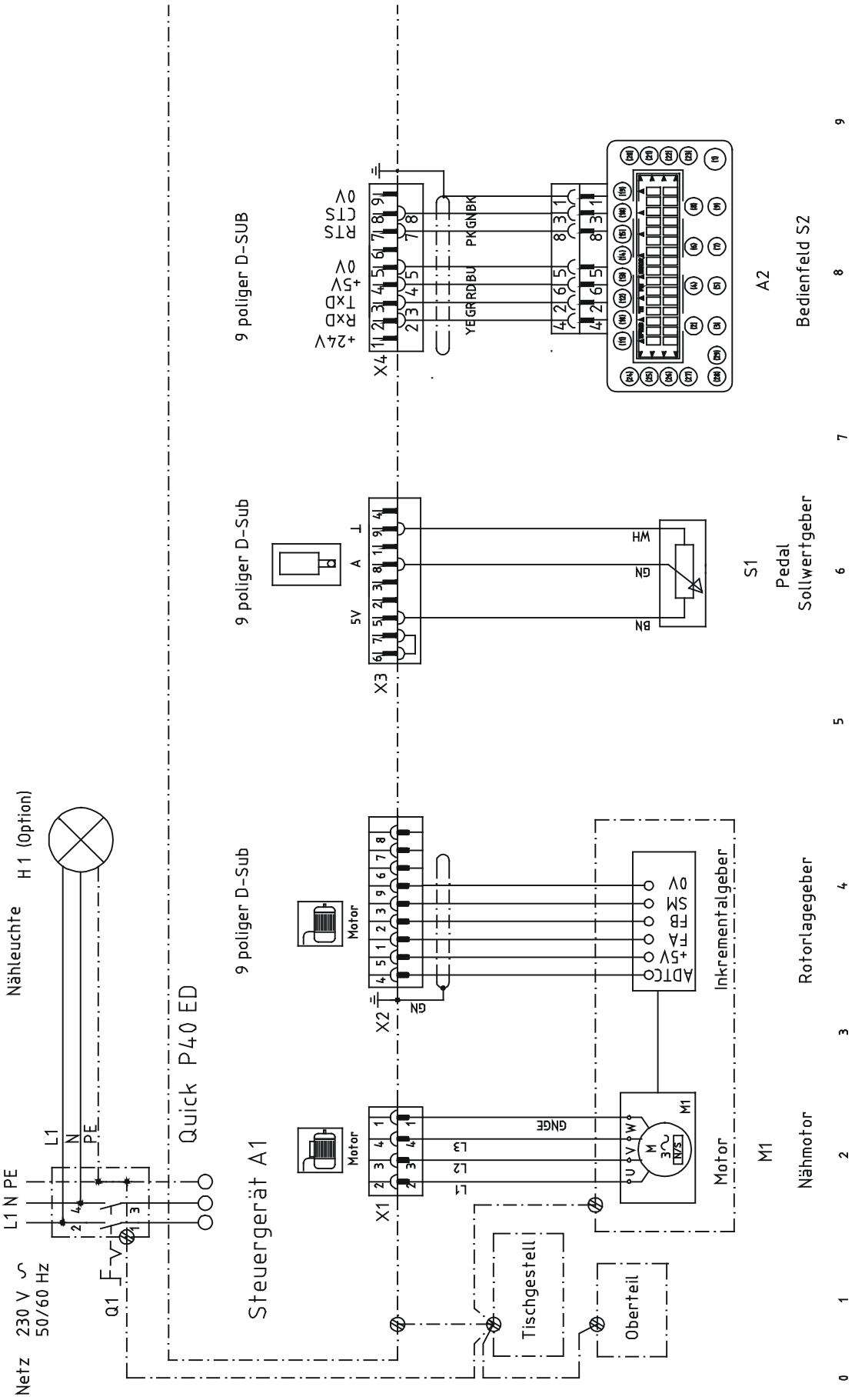
11.04 Circuit diagrams

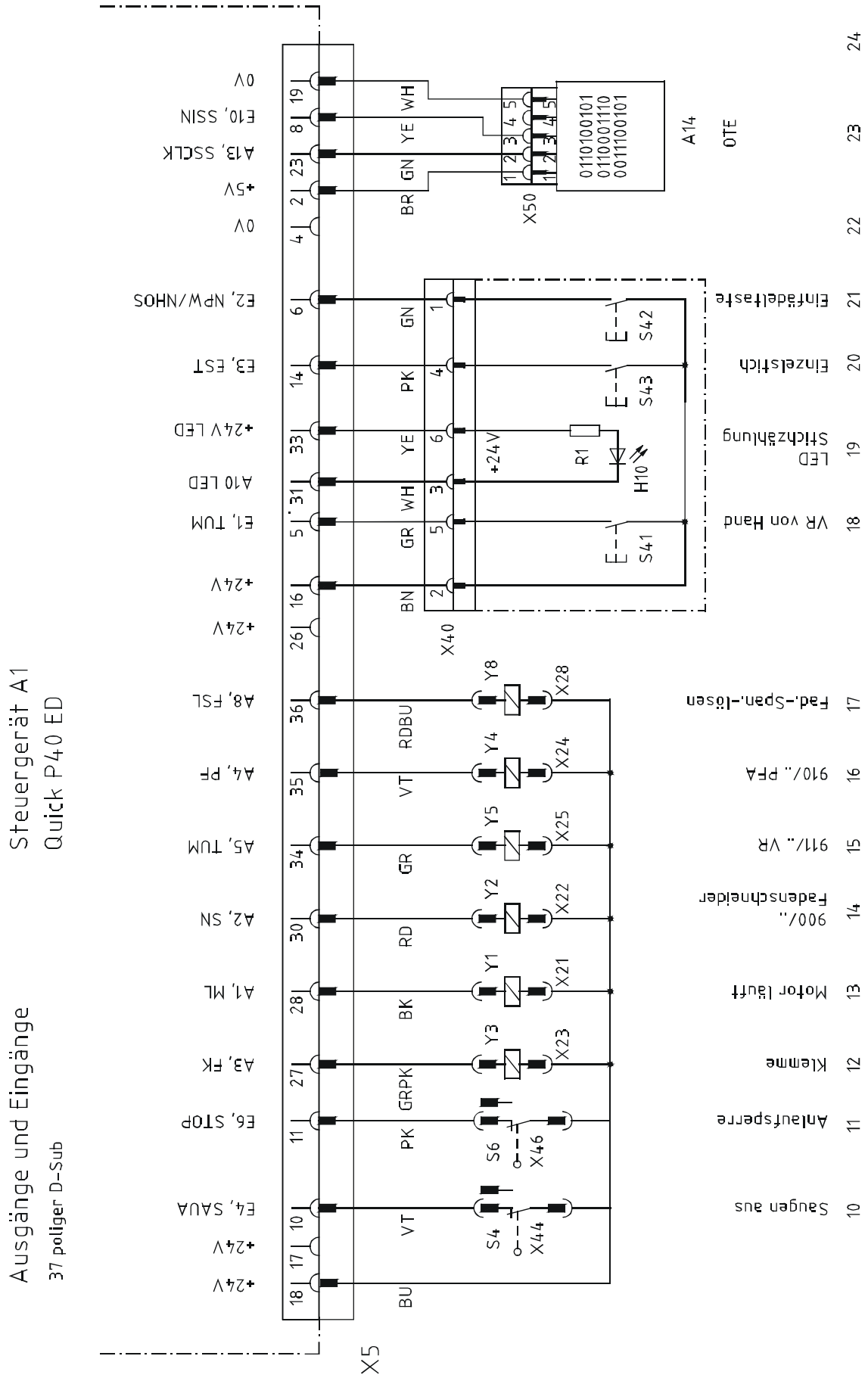
11.04.01 Reference list for the Circuit diagrams 91-191 516-95 and 91-191 521-95

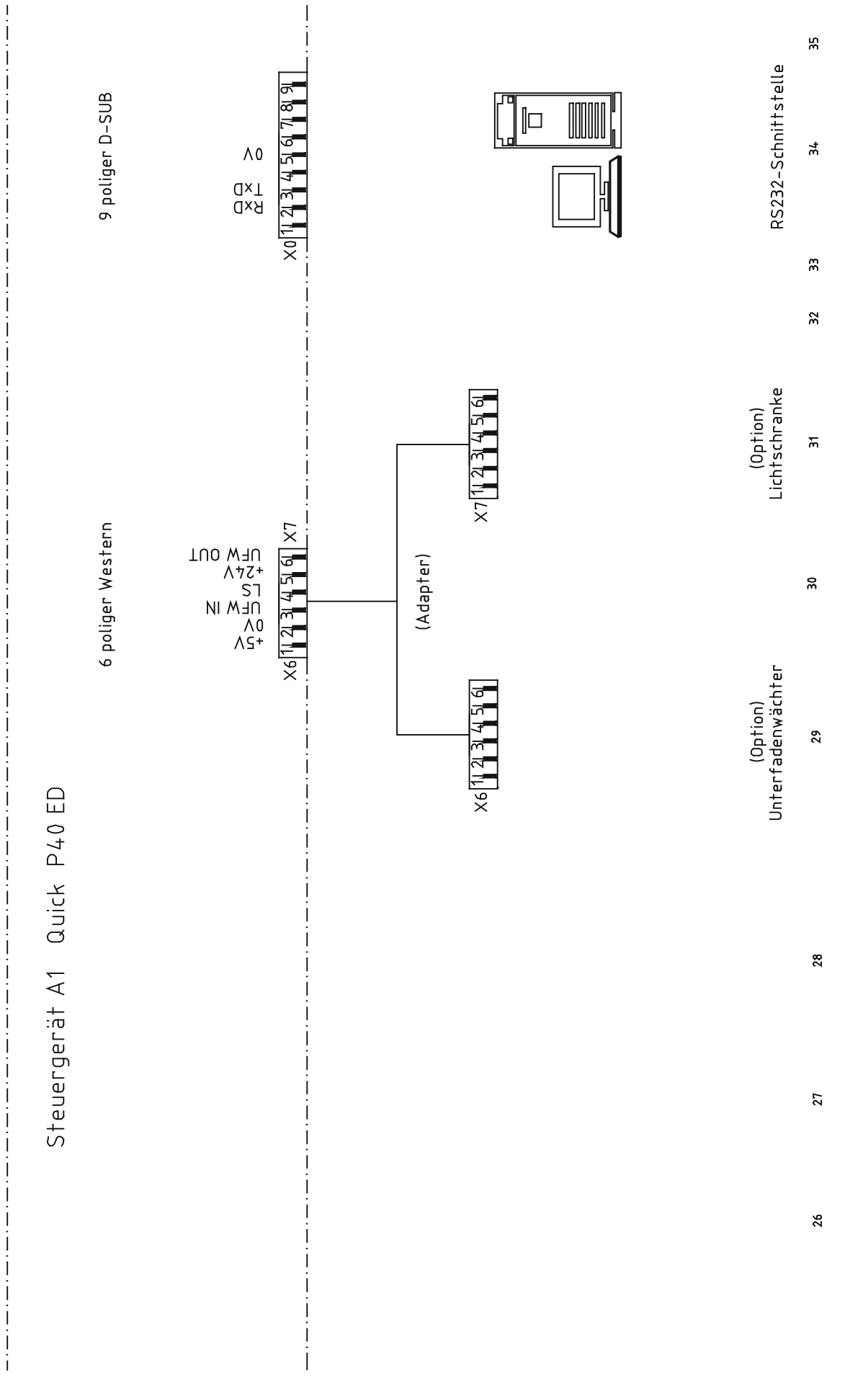
Control package		
	P40 ED	**P40 PD**
	91-191 516-95	**91-191 521-95**
A1	Control unit Quick P40ED	Control unit Quick P40PD
A2	S2 control panel	PicoTop control panel
A14	Sewing head recognition	-
H1	Sewing lamp	-
H10	LED reverse stitch counting	-
HQ1	-	Control lamp main switch
M1	Sewing motor with incremental transmitter	
M10	Knife motor	-
PD3	External synchronizer PD3 (sub-cl. -712/..)	-
Q1	Main switch	
S1	Pedal (speed control unit)	
S6	Start inhibitor switch	
S10	Knife motor key	-
S41	Manual backtacking key	
S42	Needle position change / threading key	
S43	Single stitch key	
S44	Suction off	-
X0	RS 232 interface (PC) plug	-
X1	Sewing motor plug	
X2	Incremental transmitter plug	
X3	Pedal (speed control unit) plug	
X4	S2 control panel plug	Pico to control panel/RS232 (PC) plug
X5	Outputs/inputs plug	
X6	Bobbin thread monitor plug (optional)	-
X7	Light barrier plug (optional	Synchronizer PD3 plug (optional)
X8	-	Light barrier plug (optional)
X21	Motor running	-
X22	Thread trimmer (-900/..) plug	
X23	Thread clamp plug	
X24	Automatic presser foot lift (-910/..) plug	
X25	Backtacking device (-911/..) plug	
X28	Thread tension release plug	
X40	Keyboard plug	
X44	Suction off plug	-
X46	Start inhibitor plug	
X50	Sewing head recognition plug	-

Control package		
	P40 ED	P40 PD
	91-191 516-95	91-191 521-95
Y1	Motor running	-
Y2	Thread trimmer (-900/..)	
Y3	Thread clamp	
Y4	Automatic presser foot lift (-910/..)	
Y5	Backtacking device (-911/..)	
Y8	Thread tension release	

11.04.02 Circuit diagrams 91-191 516-95




Steuergerät A1
Quick P40 ED
Ausgänge und Eingänge
37 poliger D-Sub
X5
0V
E10, SSIN
A13, SSCLK
+5V
0V
E2, NPW/NHOS
E3, EST
+24V LED
A10 LED
E1, TUM
+24V
+24V
A8, FSL
A4, PF
A5, TUM
A2, SN
A1, ML
A3, FK
E6, STOP
E4, SAUA
+24V
+24V
BU
VT
PK
GRPK
BK
RD
GR
VT
RDBU
BR
GN
YE
WH
X50
A14
OTE
0110100101
0110001110
0011100101
X40
BN
GR
WH
YE
PK
GN
+24V
R1
H10
S41
S42
S43
Einfädeltaste
Einzelstich
LED Stichzählung
VR von Hand
Fad.-Span.-lösen
910/.. PFA
911/.. VR
900/.. Fadenschneider
Motor läuft
Klemme
Anlaufsperre
Saugen aus
S4
S6
X44
X46
Y1
Y2
Y3
Y4
Y5
Y8
X21
X22
X23
X24
X25
X28


Steuergerät A1 Quick P40 ED
9 poliger D-SUB
6 poliger Western
X0
RxD
TxD
0V
X6
+5V
0V
UFW IN
LS
+24V
UFW OUT
X7
(Adapter)
X7
X6
(Option)
Lichtschranke
(Option)
Unterfadenwächter
RS232-Schnittstelle
26
27
28
29
30
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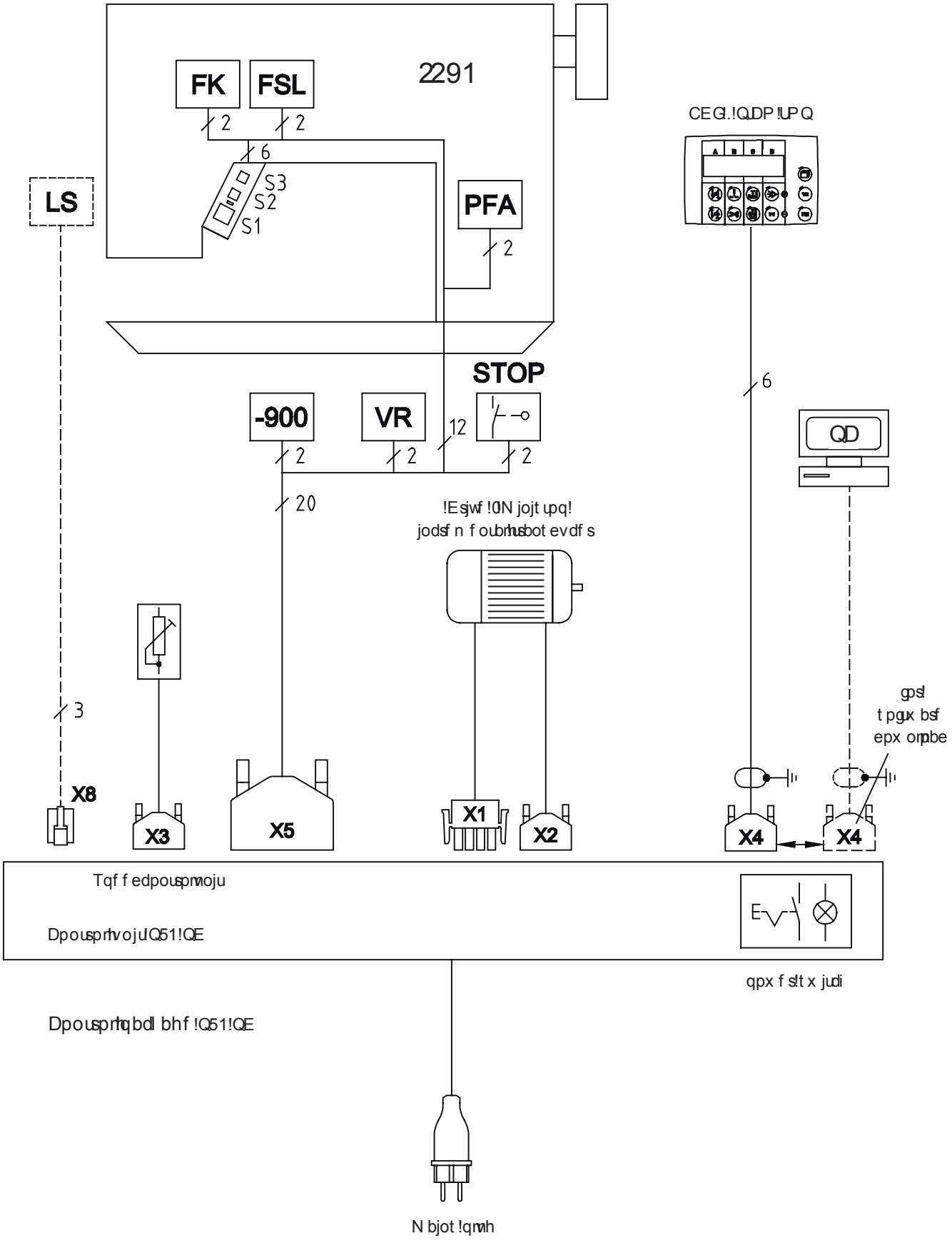
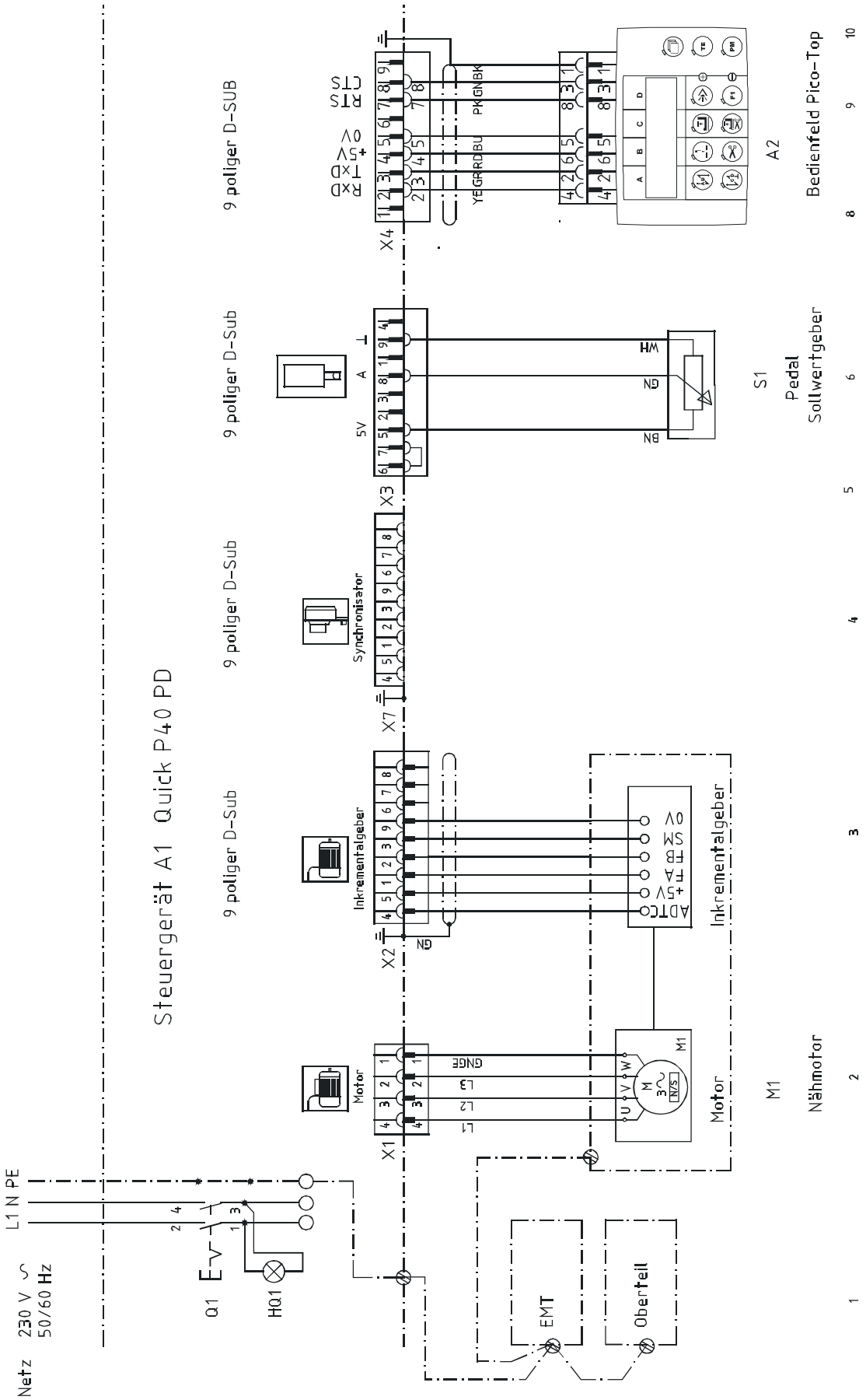
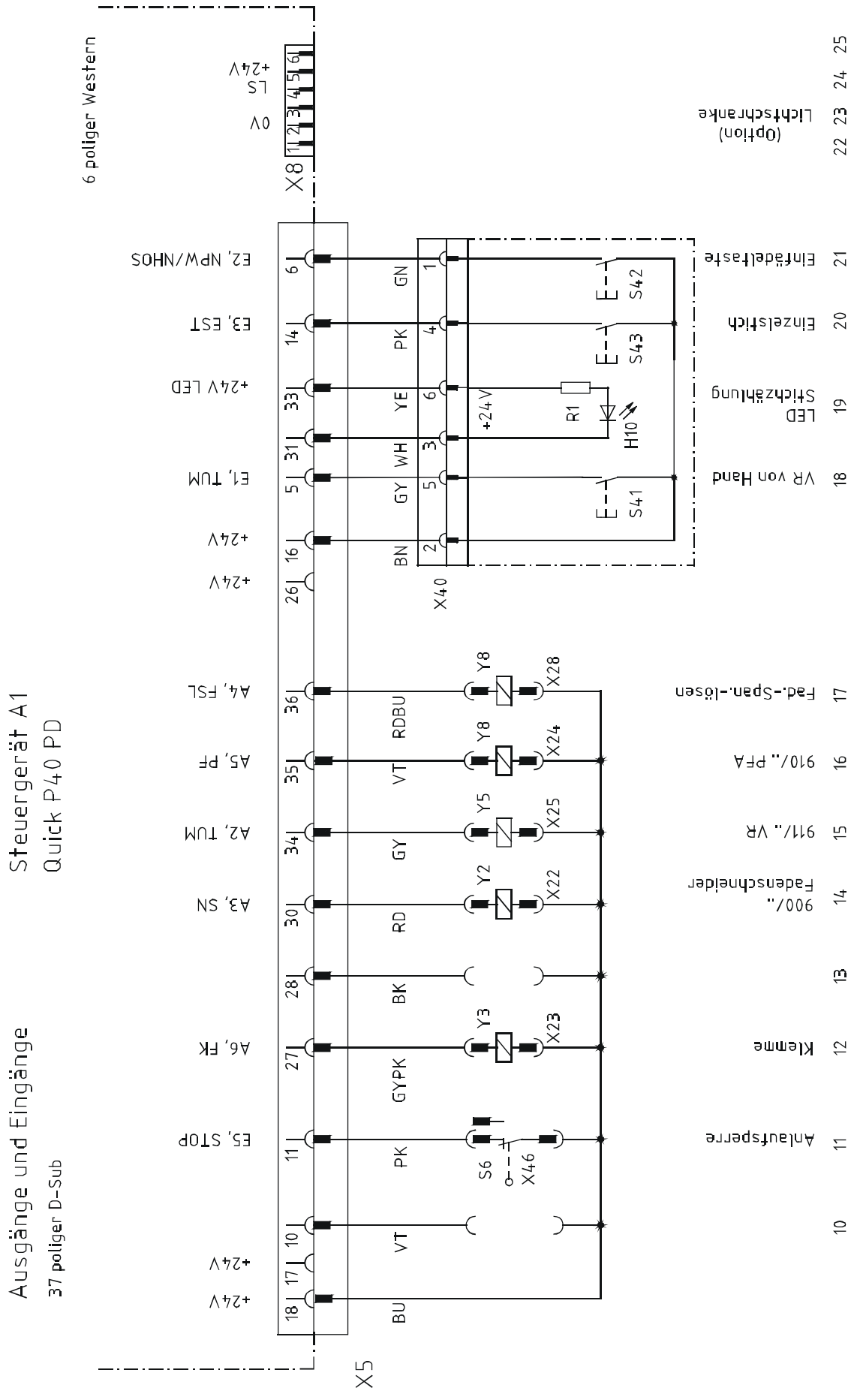
22/15/14 Cmpdl !ejbhsbn !QGBGG!2291!x jui !dpouspmmvojuQ51!QE!



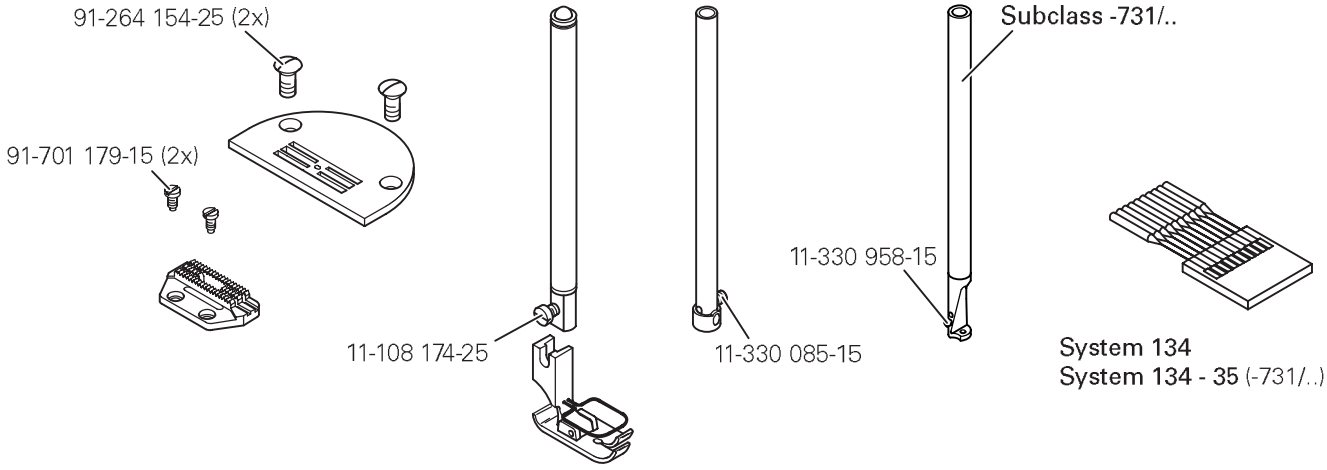
11.04.04 Circuit diagrams 91-191 521-95



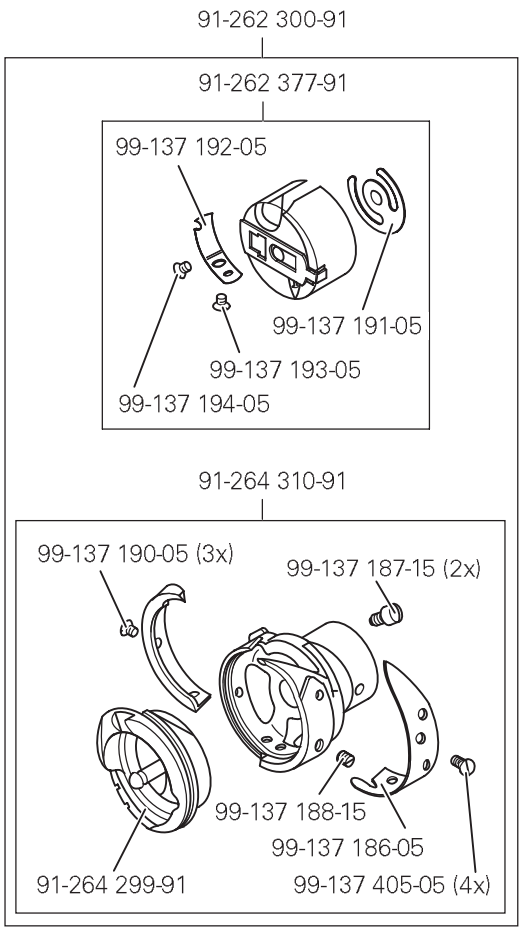

Steuergerät A1
Quick P40 PD
Ausgänge und Eingänge
37 poliger D-Sub
X5
X8
6 poliger Western
0V
LS
+24V
X40
+24V
R1
H10
S41
S42
S43
S6
X46
Y8
Y8
Y5
Y2
Y3
X28
X24
X25
X22
X23
A4, FSL
A5, PF
A2, TUM
A3, SN
A6, FK
E5, STOP
+24V
+24V
+24V
E1, TUM
E2, NPW/NHOS
E3, EST
+24V LED
VR von Hand
LED Stichzählung
Einzelstich
Einfädeltaste
Fad.-Span.-lösen
910/.. PFA
911/.. VR
900/.. Fadenschneider
Klemme
Anlaufsperre
Lichtschranke (Option)
BN
GY
WH
YE
PK
GN
RDBU
VT
GY
RD
BK
GYPK
PK
VT
BU

12 Wearing parts

This is a list of the most important wearing parts.
A detailed parts list for the complete machine is included with the accessories. In case of loss, the parts list can be downloaded from the internet address **www.pfaff-industrial.com/pfaff/de/service/downloads** As an alternative to the internet download the parts lists can also be ordered in book form under part no. **296-12-19 009.**

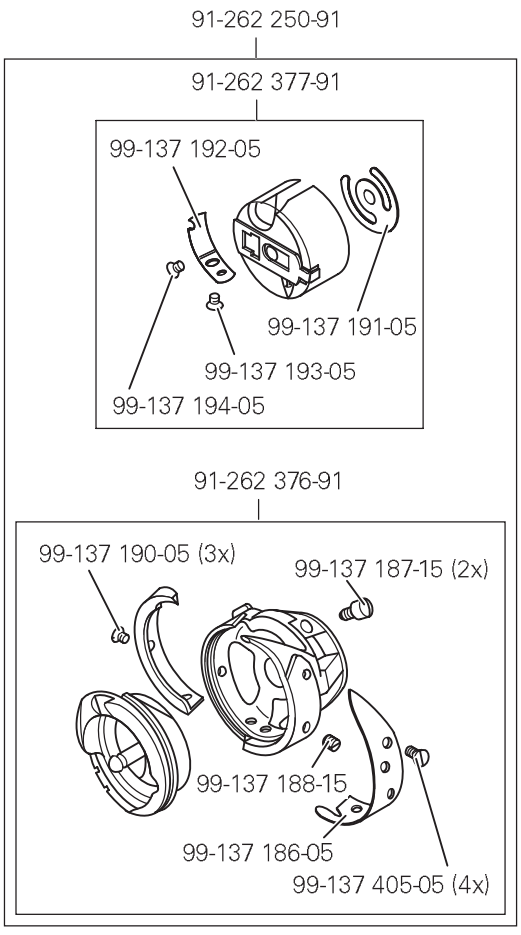


PFAFF 1181-D; 1183-D

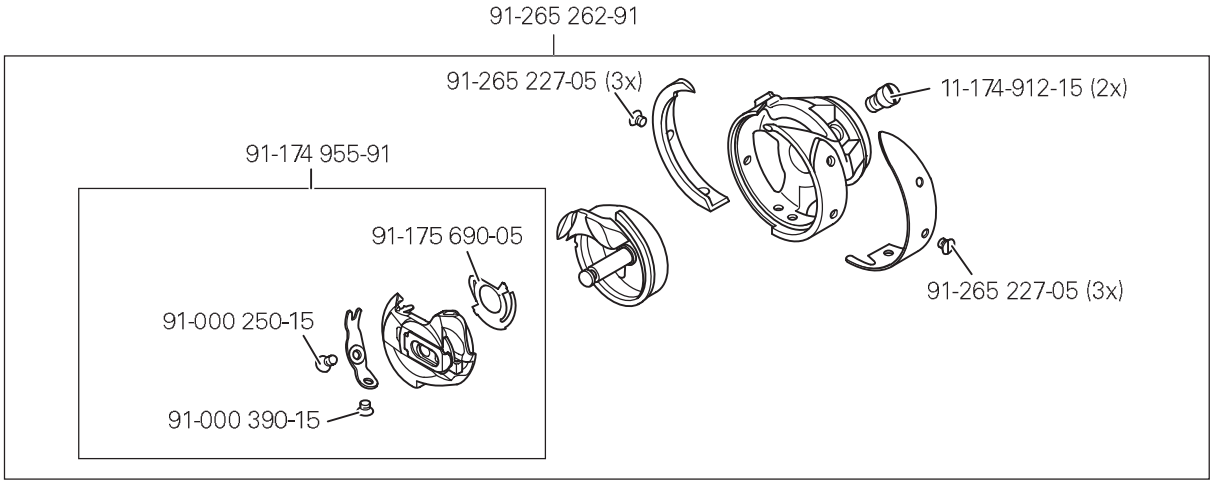


91-262 437-05

PFAFF 1181; 1183



PFAFF 1181-G; 1183-G

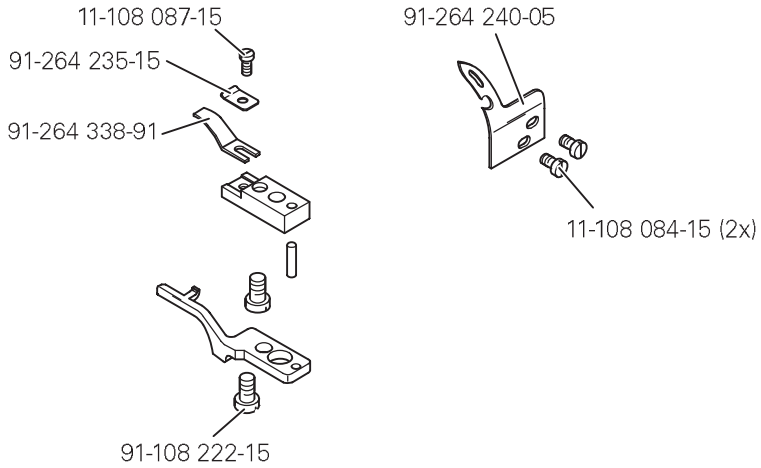


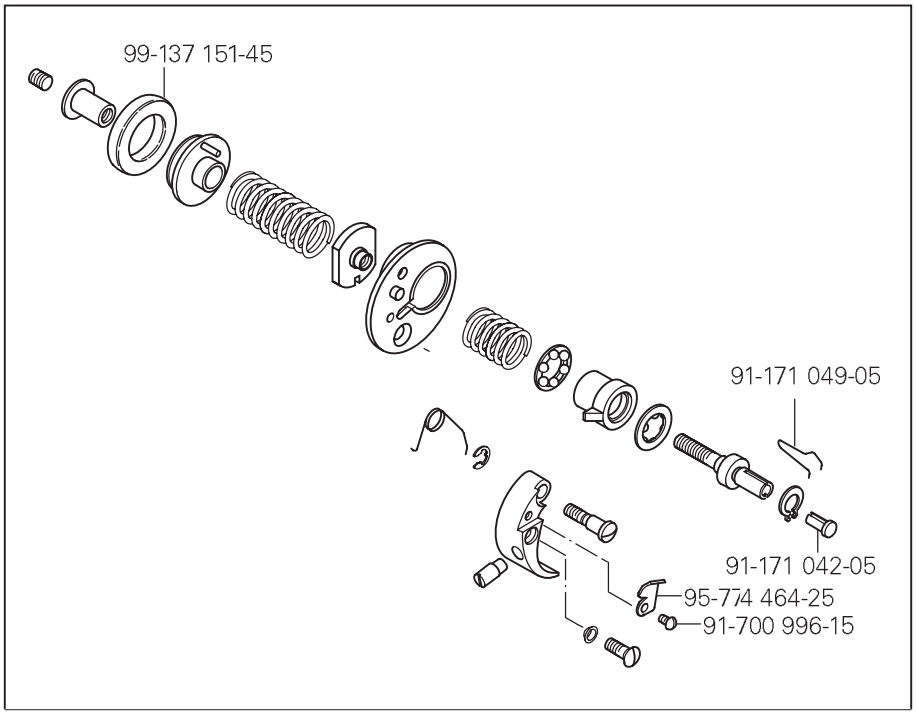
PFAFF 1181-G; 1183-G

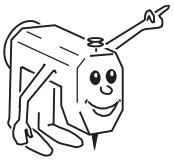
Subclass -731/..

	Subclass	Trimming margin	Partnumber
	-731/01-8/11 A	5,0 mm	91-069 595-04/002
	-731/01-8/11 B	3,5 mm	91-169 395-04/002
	-731/01-8/11 B	4,0 - 7,0 mm	91-069 595-04/002

Subclass -900/24




99-137 151-45
91-171 049-05
91-171 042-05
95-774 464-25
91-700 996-15



Notes

PFAFF

PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
E-Mail: info@pfaff-industrial.com

PFAFF

1181
1183

Adjustment Manual

1181-D
1183-D

This Adjustment Manual is valid for machines from the following serial numbers onwards:

6 063 202 →

296-12-19 023/002
Kvt ujf sanleitung engl. 08.07

PFAFF Industrie Maschinen AG

Postfach 3020

D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Dpouf out ////////// Qbhf

Dpouf out !//Qbhf

13 Adjustment

On the PFAFF 1181 and 1183 do not use a screw clamp on the needle bar! The special coating of the needle bar could be damaged.

Please observe all notes from Chapter 1 Safety of the instruction manual! In particular care must be taken to see that all protective devices are refitted properly after adjustment, see Chapter 1.06 Danger warnings of the instruction manual!
If not otherwise stated, the machine must be disconnected from the electrical power supply.
Danger of injury due to unintentional starting of the machine!

Notes on adjustment

All following adjustments are based on a fully assembled machine and may only be carried out by expert staff trained for this purpose. Machine covers, which have to be removed and replaced to carry out checks and adjustments, are not mentioned in the text.
The order of the following chapters corresponds to the most logical work sequence for machines which have to be completely adjusted. If only specific individual work steps are carried out, both the preceding and following chapters must be observed.
Screws, nuts indicated in brackets ( ) are fastenings for machine parts, which must be loosened before adjustment and tightened again afterwards.

13.01 Tools, gauges and other accessories for adjusting

- 1 set of screwdrivers with blade widths from 2 to 10 mm
- 1 set of wrenches with jaw widths from 7 to 14 mm
- 1 set of Allan keys from 1.5 to 6 mm
- 1 metal rule, (Part No. 08-880 218-00)
- 1 feed dog adjustment gauge, Part No. 61-111 639-71
- 1 adjustment pin (5 mm dia.), Part No. 13-033 346-05
- Adjustment gauge, part No. 61-111 639-73
- 1 adjustment gauge for tightening the hook drive belt, Part-No. 61-111 639-76

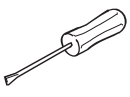
13.02 Abbreviations

TDC = top dead center
BDC = bottom dead center

13.03 Explanation of the symbols

In this adjustment manual, symbols emphasize operations to be carried out or important information. The symbols used have the following meaning:

Note, information



Service, repair, adjustment, maintenance

(work to be carried out by qualified staff only)

13.04 Checking and adjusting aids

With the aid of blocking pin **1** (part No. **13-033346-05**) and if necessary adjustment gauge **3** (part No. **61-111** 639-73) the machine can be blocked in the following positions for adjustment

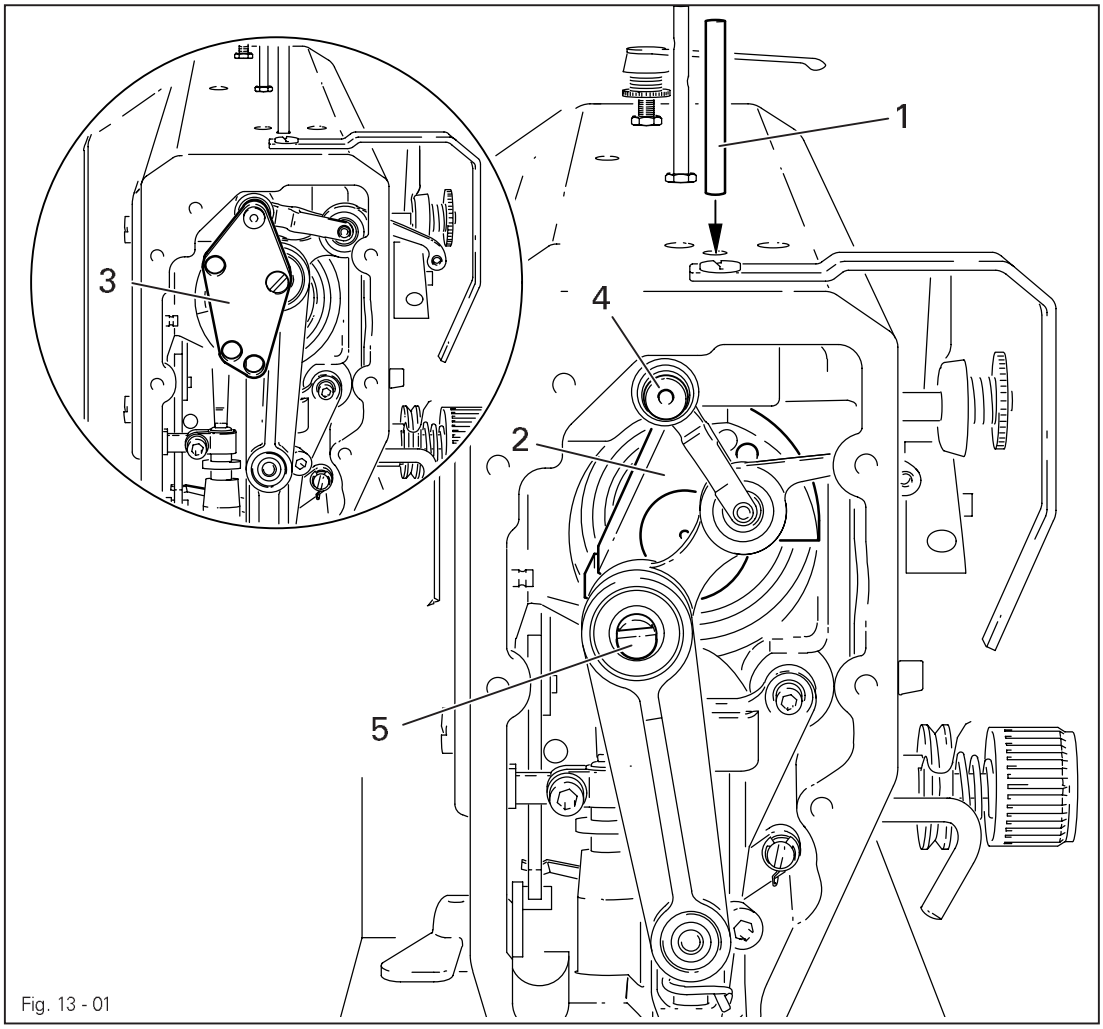


Fig. 13 - 01

Needle bar position 1.8 mm past b.d.c.

- Turn balance wheel until needle bar is roughly in required position
- Insert blocking pin **1** in hole
- Turn balance wheel slightly back and forth until blocking pin engages crank **2**

Needle bar position 0.6 mm past t.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge **3** onto pins **4** and **5**, making sure right side is used (for **30** or **36 mm** needle bar stroke)

Needle bar position 0.6 mm past b.d.c.

- Set needle bar roughly at required position
- Place adjustment gauge **3** onto pins **4** and **5**, making sure right side is used (for 30 or 36 mm needle bar stroke)

13.05 Adjusting the basic machine

13.05.01 Basic position of the machine drive

This adjustment is only required if toothed belt **2** has been removed.

Requirement
When the needle bar is positioned **0,6 mm** past b.d.c., the markings **3** and **4** should be in alignment..

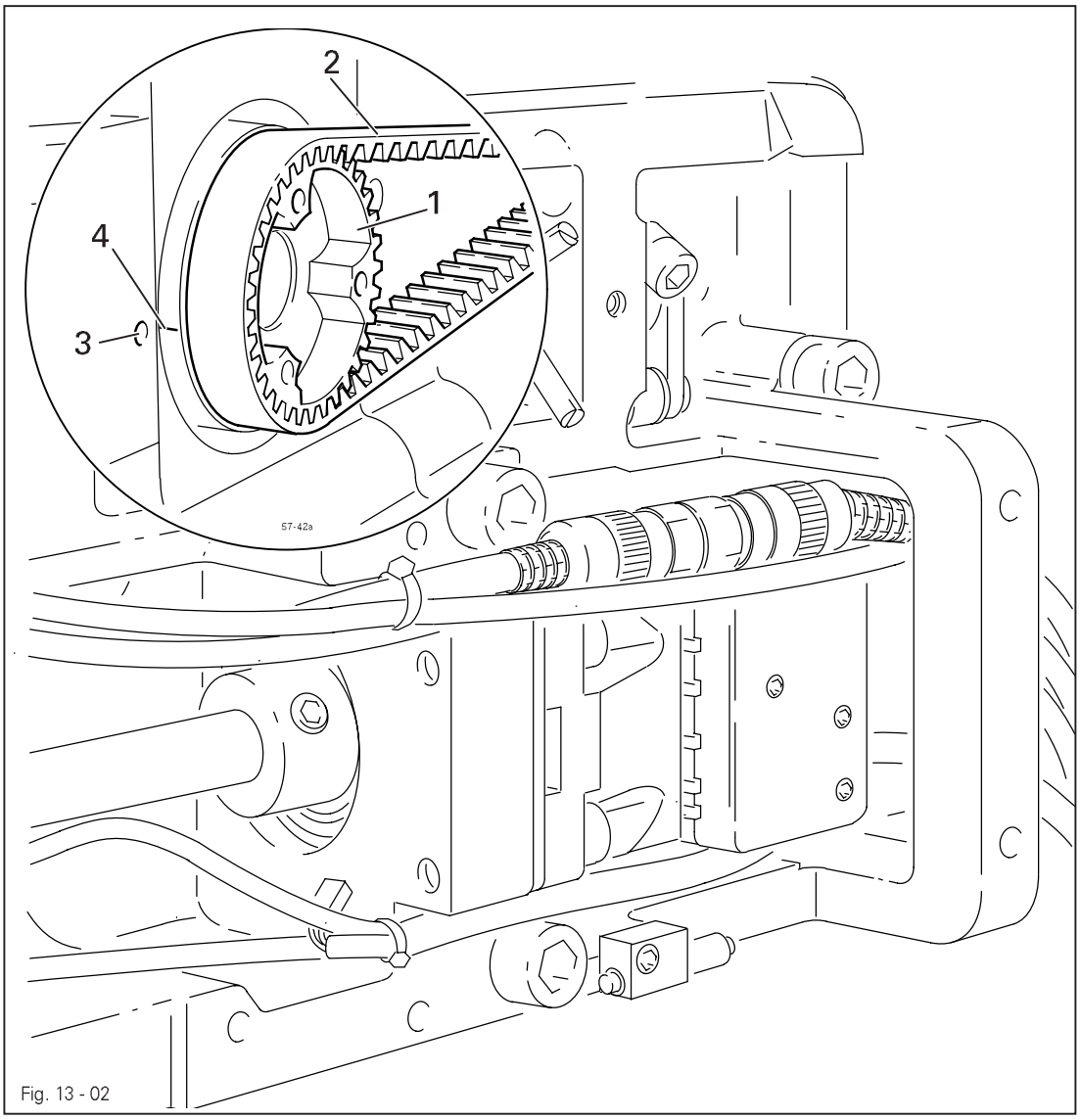


Fig. 13 - 02

- Turn toothed belt sprocket **1** according to **Requirement** and push on toothed belt **2**.

When installing the motor pay attention to the correct position of shaft flange, shock absorber and motor flange!

13.05.02 Preadjusting the needle height

Requirement
When the needle bar is positioned **1.8 mm** above BDC, the mark on the needle bar **1** must be flush with the bottom edge of the needle bar frame **3.**

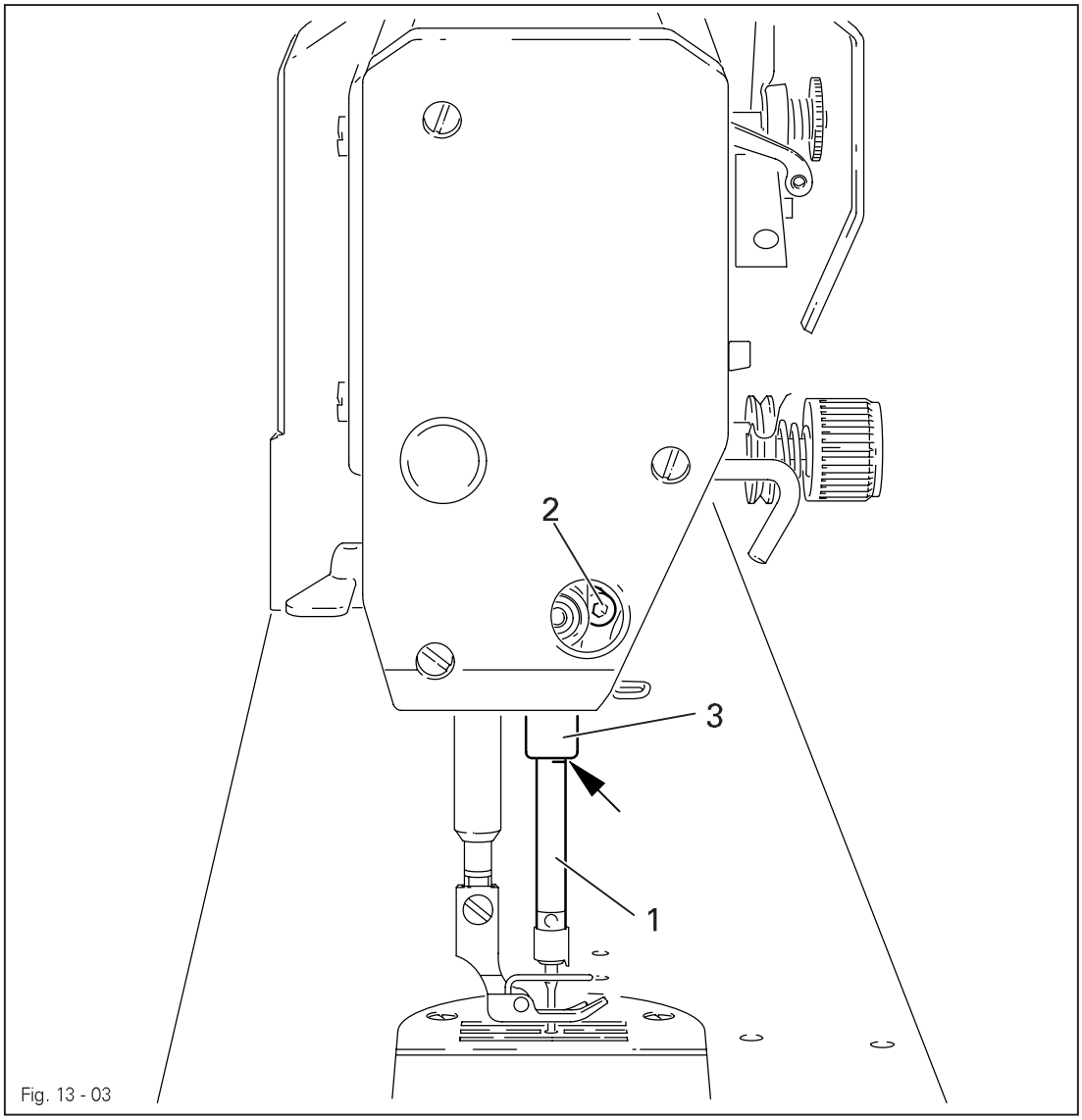
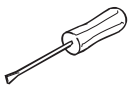


Fig. 13 - 03



- Set needle bar at **1.8 mm** past b.d.c. and block machine with blocking pin, see Chapter **13.04 Checking and adjusting aids.**
- Move needle bar **1** (screw **2**), without turning it, according to the **requirement.**

13.05.03 Bottom feed neutral position

Requirement
At stitch length setting "**0**", cranks **1** and **3** must be flush and the feed dog must not make any feeding motion when the balance wheel is turned.

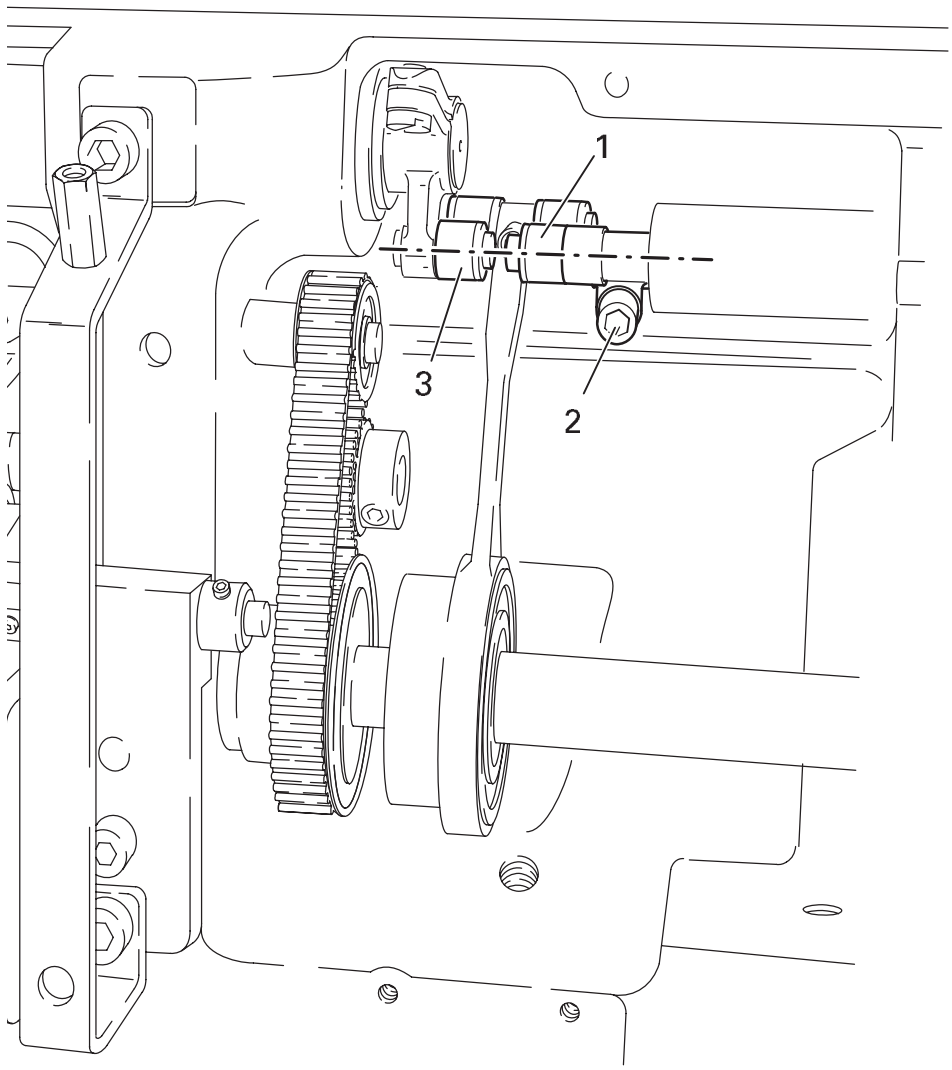
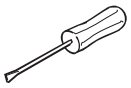


Fig. 13 - 04



- Raise the presser foot and set the stitch length to "**0**".
- Turn crank **1** (screw **2**) according to the **requirement.**

13.05.04 Neutral position of the needle feed (only on PFAFF 1181)

Requirement
At stitch length setting "0" the needle bar must not make any feeding motion when the balance wheel is turned.

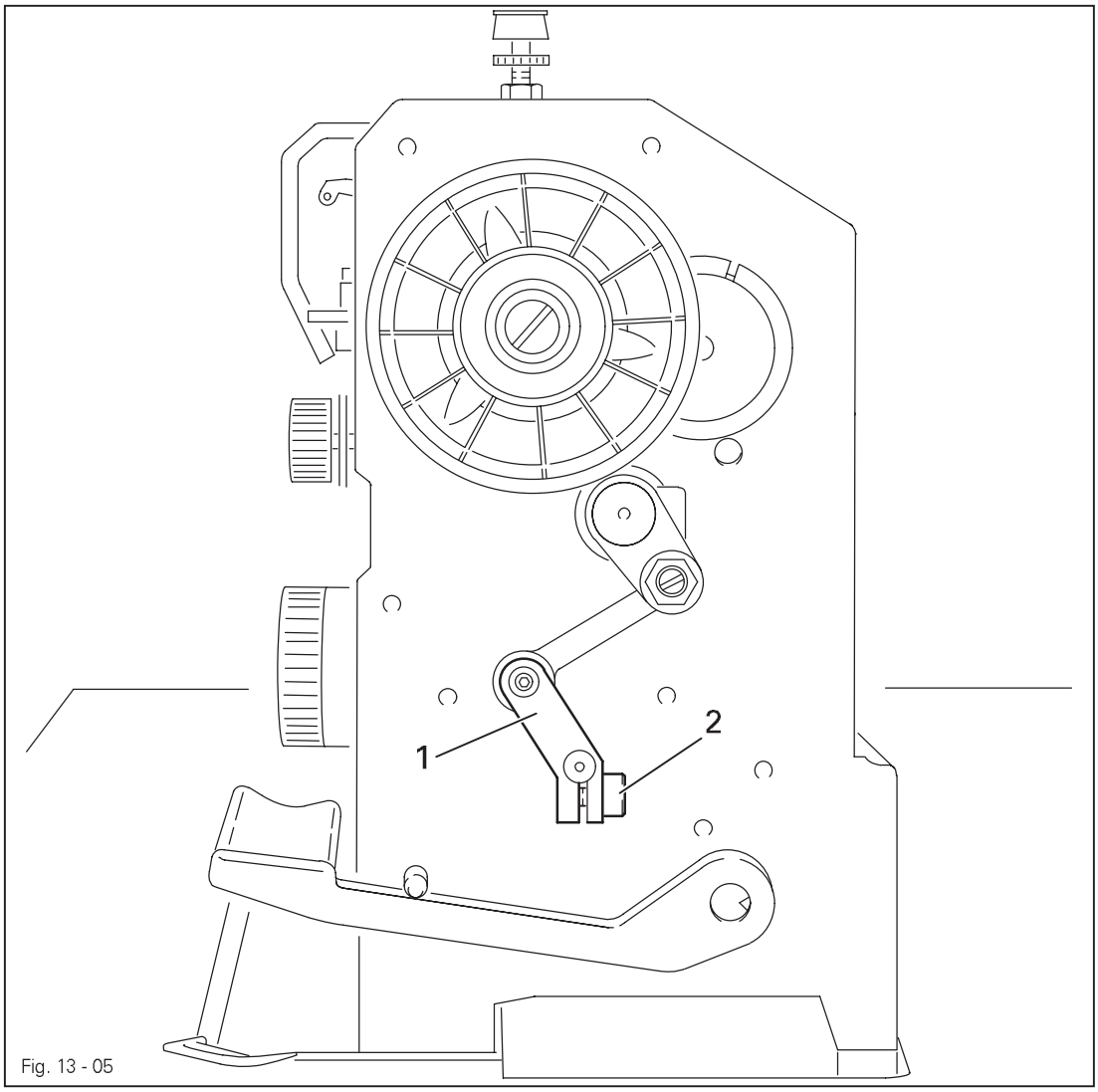
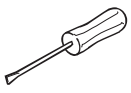


Fig. 13 - 05



- Set stitch length "0".
- Turn crank **1** (screw **2**) according to **Requirement**.

13.05.05 Bottom feed lifting motion

Requirement
At stitch length setting "**0**" and needle bar position **0.6** past b.d.c. on the **PFAFF 1181** and at needle bar position t.d.c. on the **PFAFF 1183,**

1. the bottom feed dog must be at its highest position,
2. ontrol cam **3** must rest on lifting eccentric **1.**

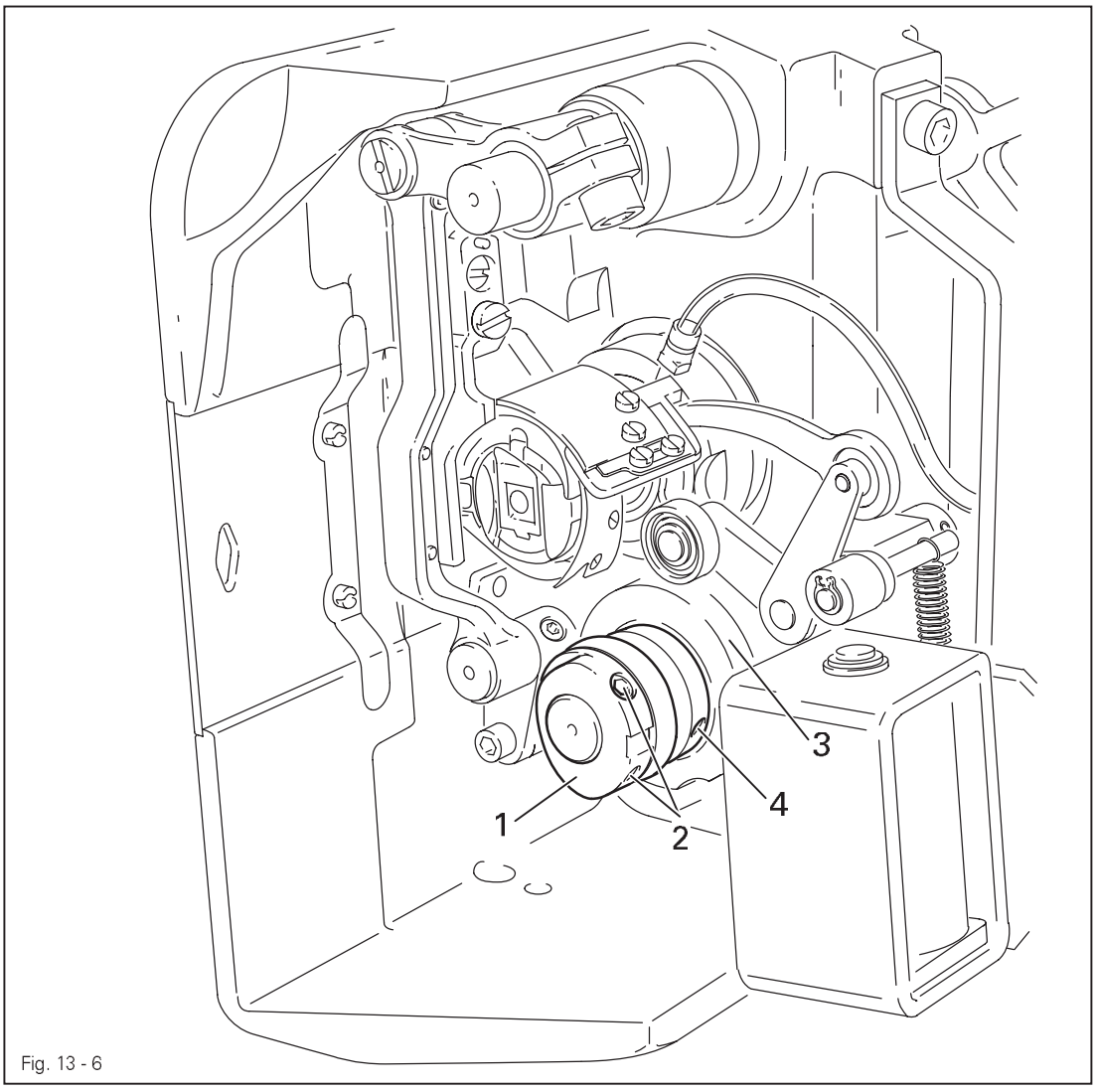


Fig. 13 - 6

- Set stitch length "**0**" and set needle bar at required position
- Turn eccentric **1** (screws **2**) according to **Requirement 1.**
- Adjust control cam **3** (screws **4**) according to **Requirement 2.**

13.05.06 Bottom feed dog height

Requirement

When feed dog **1** is at its highest point at stitch length setting "**0**" it must

1. be centred in the feed slot crosswise and in feeding direction
2. Rest on feed dog adjustment gauge **2** over its entire length.

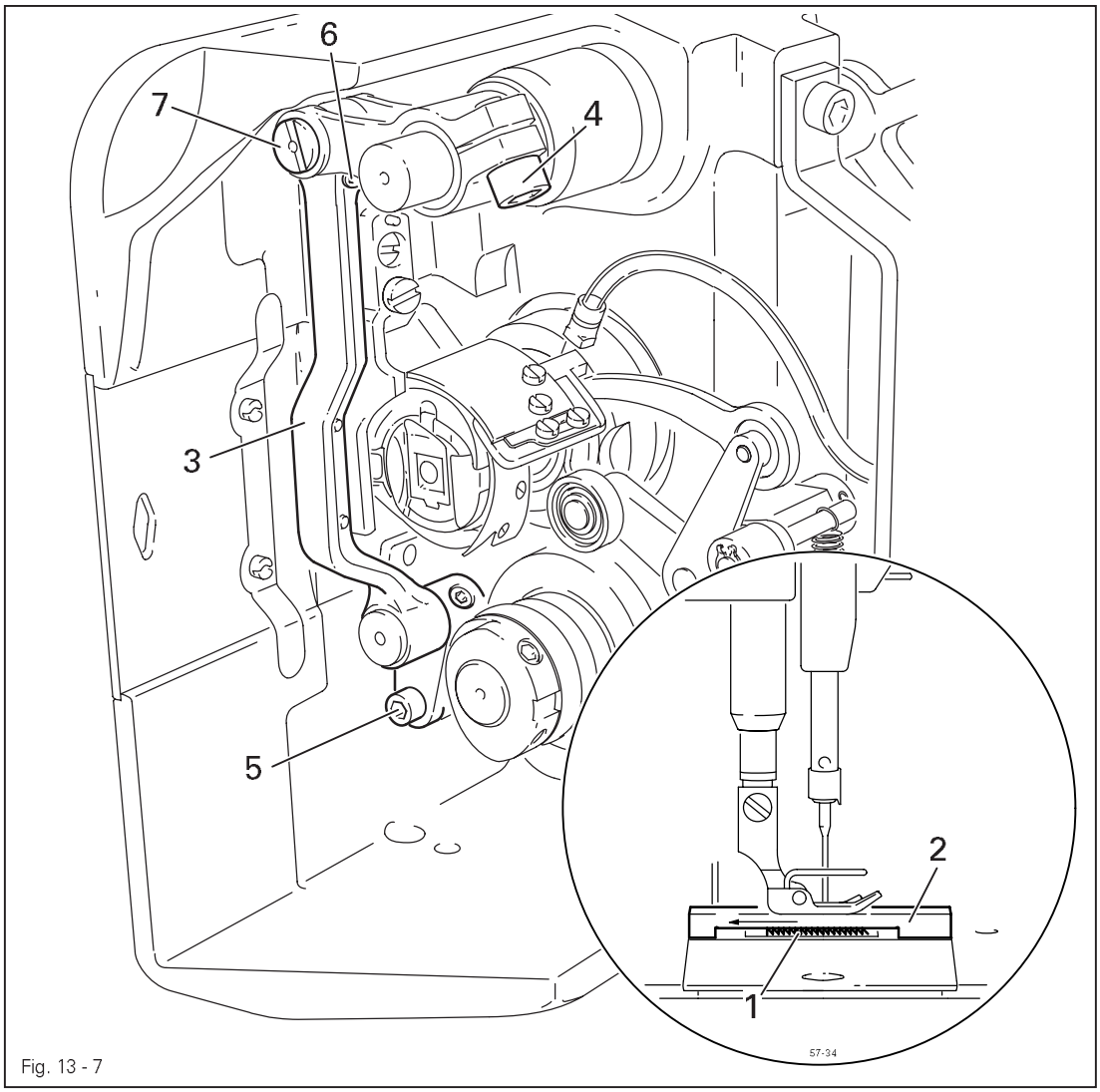
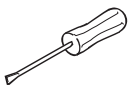


Fig. 13 - 7



- Set stitch length at "**0**" and feed dog **1** at its highest position
- Raise the presser foot.
- Place feed dog adjustment gauge **2** on the needle plate cutout with the arrow in sewing direction so that it is flush with the front edge, and lower the presser foot onto it.
- Adjust feed bar **3** (screws **4**) according to **Requirement 1.**
- Loosen screws **5** and **6.**
- Adjust feed bar **3** or eccentric **7** according to **Requirement 2.**
- Tighten screws **5** and **6** firmly.

13.05.07 Feed dog motion of bottom feed dog

Requirement
With the needle bar at a position **0.6** past b.d.c. on the **PFAFF 1181** or in position **0.6** past t.d.c. on the **PFAFF 1183** the feed dog must not make any feeding motion when reverse-feed lever **3** is operated at the longest stitch length setting.

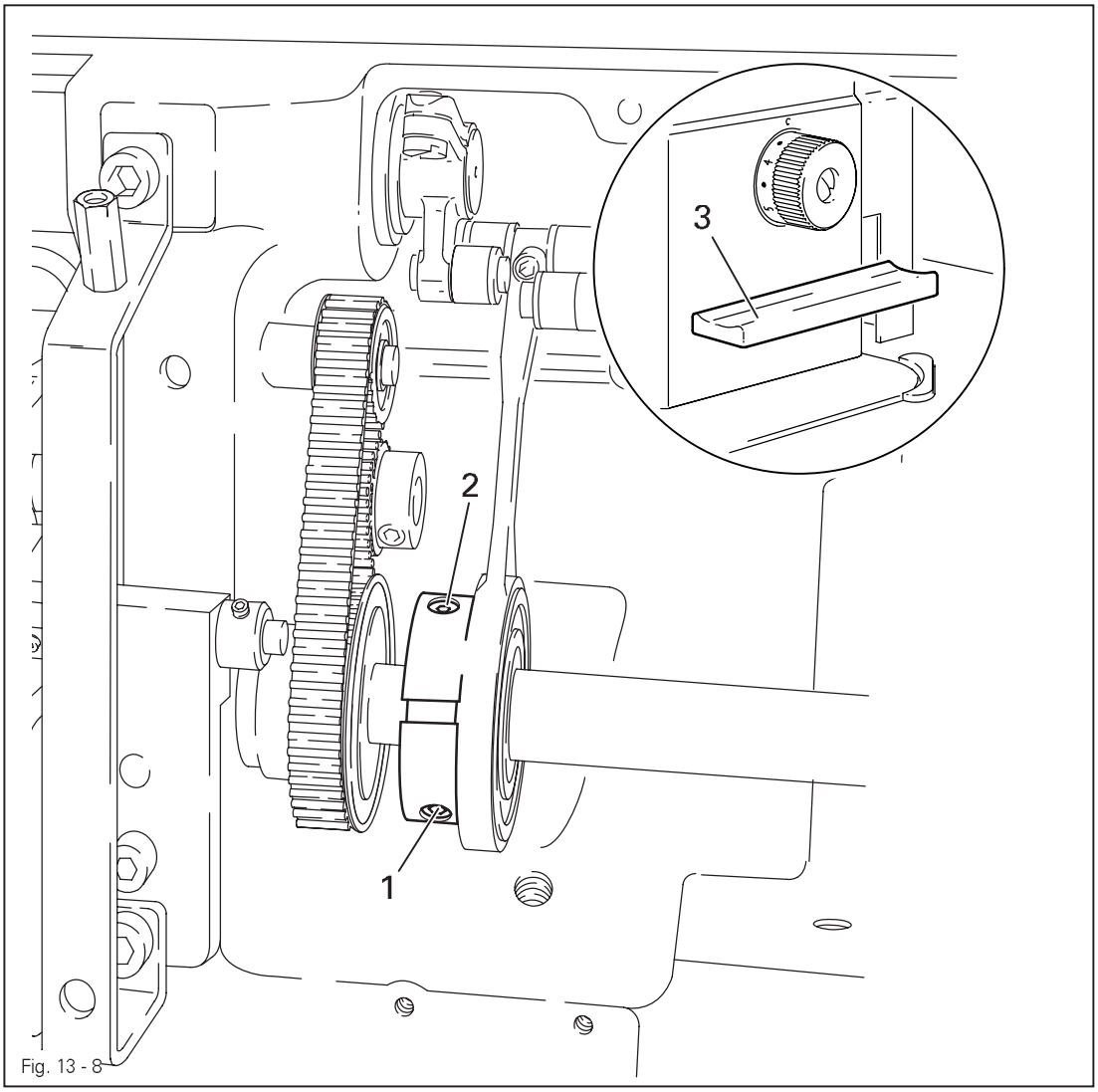


Fig. 13 - 8

- Set the longest stitch and the needle bar at the corresponding position.
- Adjust eccentric **1** (loosen screws **2** a little) according to **Requirement**, but make sure it is not moved sideways.

13.05.08 Feeding motion of needle feed (only on PFAFF 1181)

Requirement
When the longest stitch length is set and the needle bar is positioned **0.6 mm** past b.d.c., the needle should not move when the reverse-feed key **4** is operated..

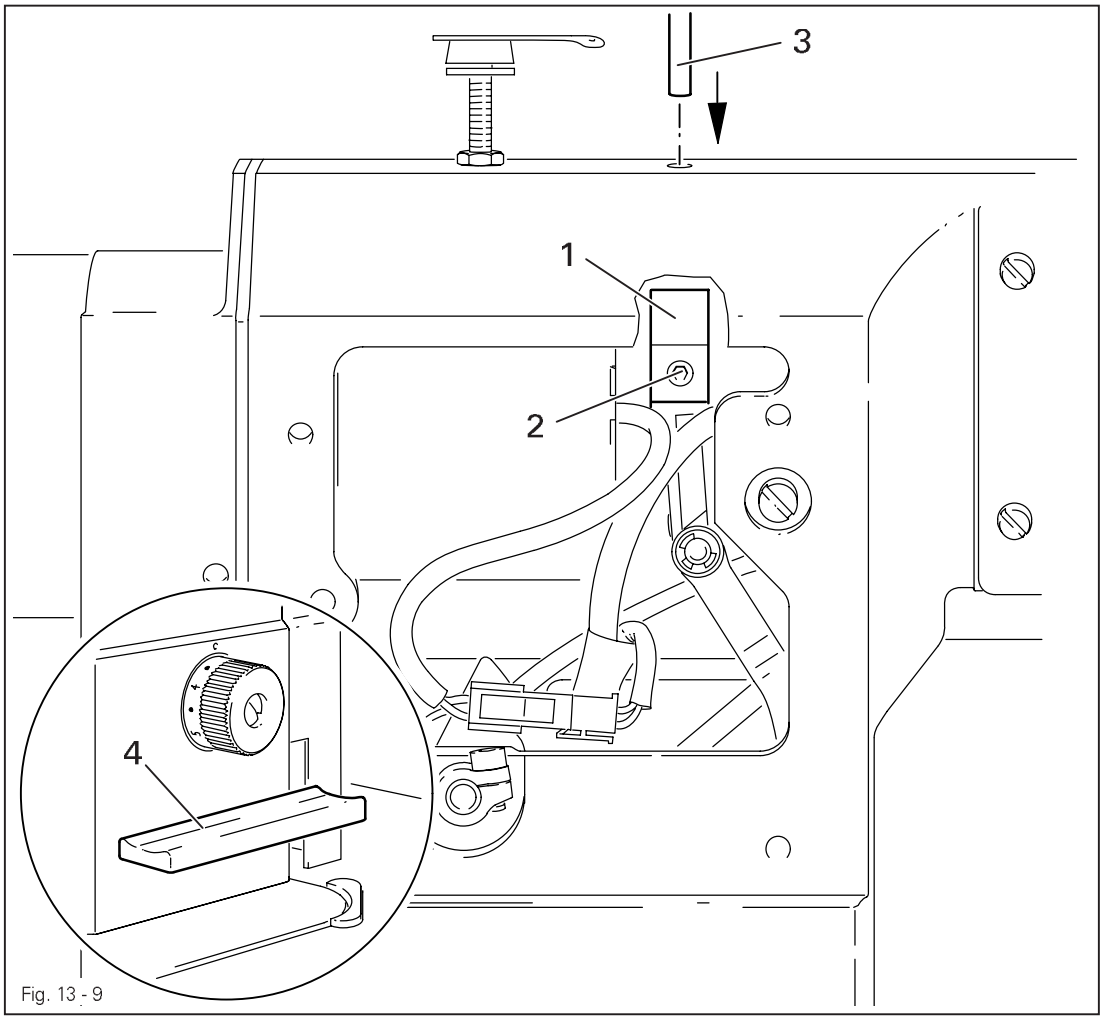


Fig. 13 - 9

- Bring the needle bar into the position **0.6 mm** past t.d.c.
- Turn eccentric **1** (screws **2**) until the adjustment pin **3** locks into place.

13.05.09 Needle in needle hole center (only on PFAFF 1183)

Requirement
The needle must penetrate the needle hole exactly in the middle.

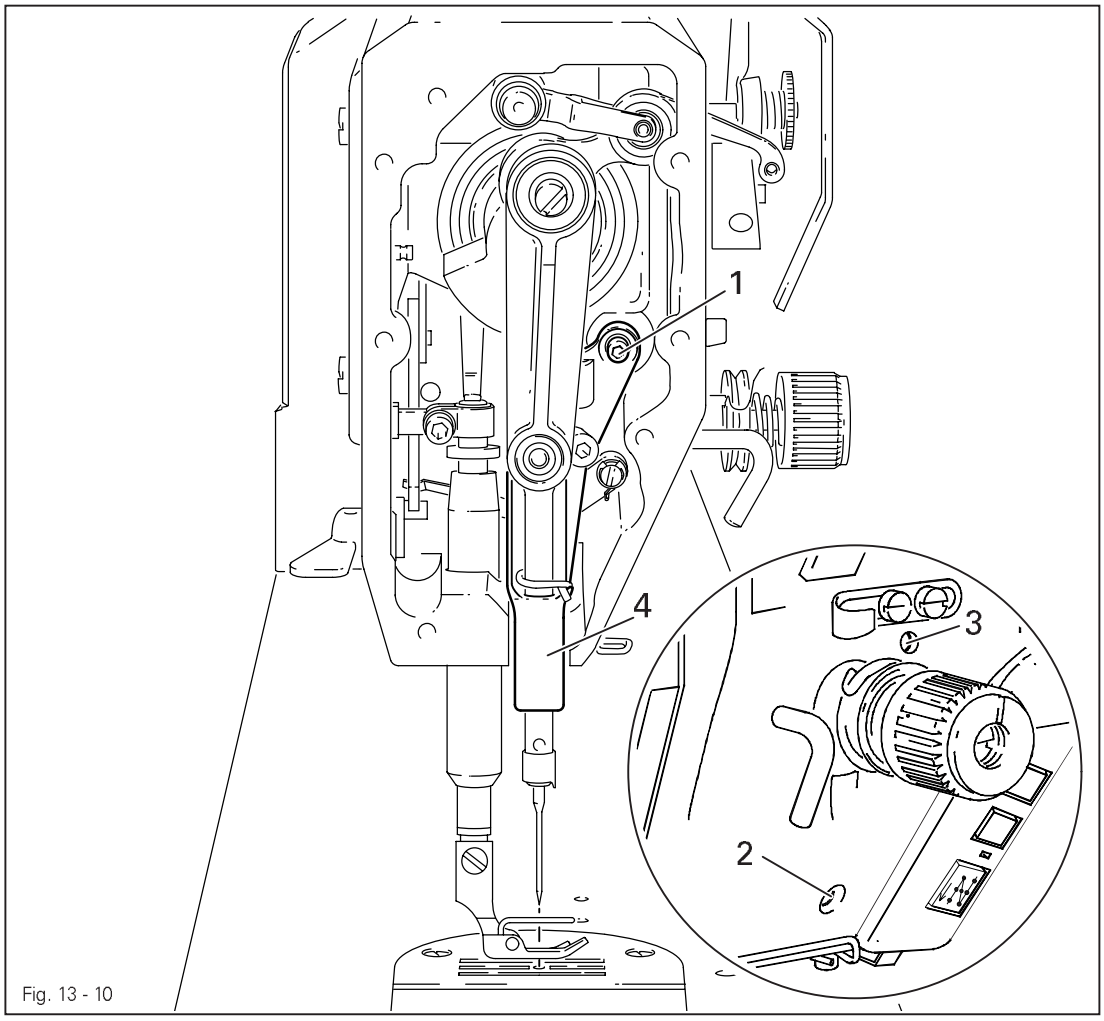
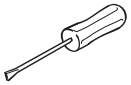


Fig. 13 - 10



- Set the needle in the needle hole.
- Loosen screws **1**, **2** and **3**.
- Move the needle bar frame **4** according to the **requirement.**
- Tighten screw **2** and turn screw **3** slightly.
- Via screw **1**, bring the retracted guide bolt to the eye of the needle bar frame **4** and tighten it.
- Turn the handwheel a few times to prevent distortion to the needle bar frame **4.**
- Tighten screw **3**

13.05.10 Needle to needle hole centre (on PFAFF 1181)

Requirement
The needle must enter excatly in the centre of the needle hole.

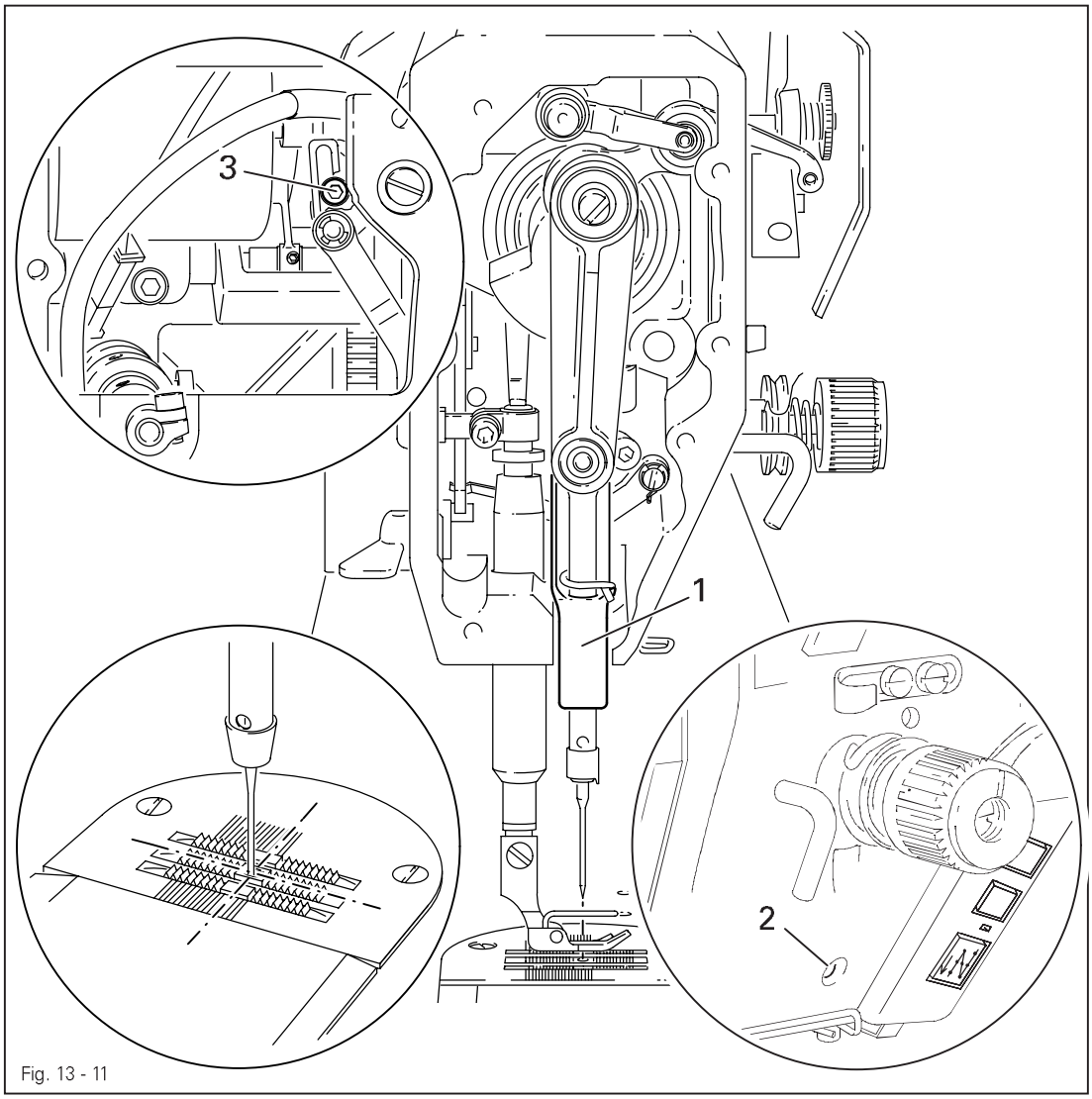


Fig. 13 - 11

- Set stitch length "**0**".
- Set the needle in the needle hole by turning the balance wheel
- Turn needle bar frame **1** (screws **2** and **3**) according to **Requirement.**

13.05.11 Synchronous strokes of needle- and drop feed (only on PFAFF 1181)

Requirement
At the longest stitch length setting the needle and feed dog must move by the same stroke when the balance wheel is turned.

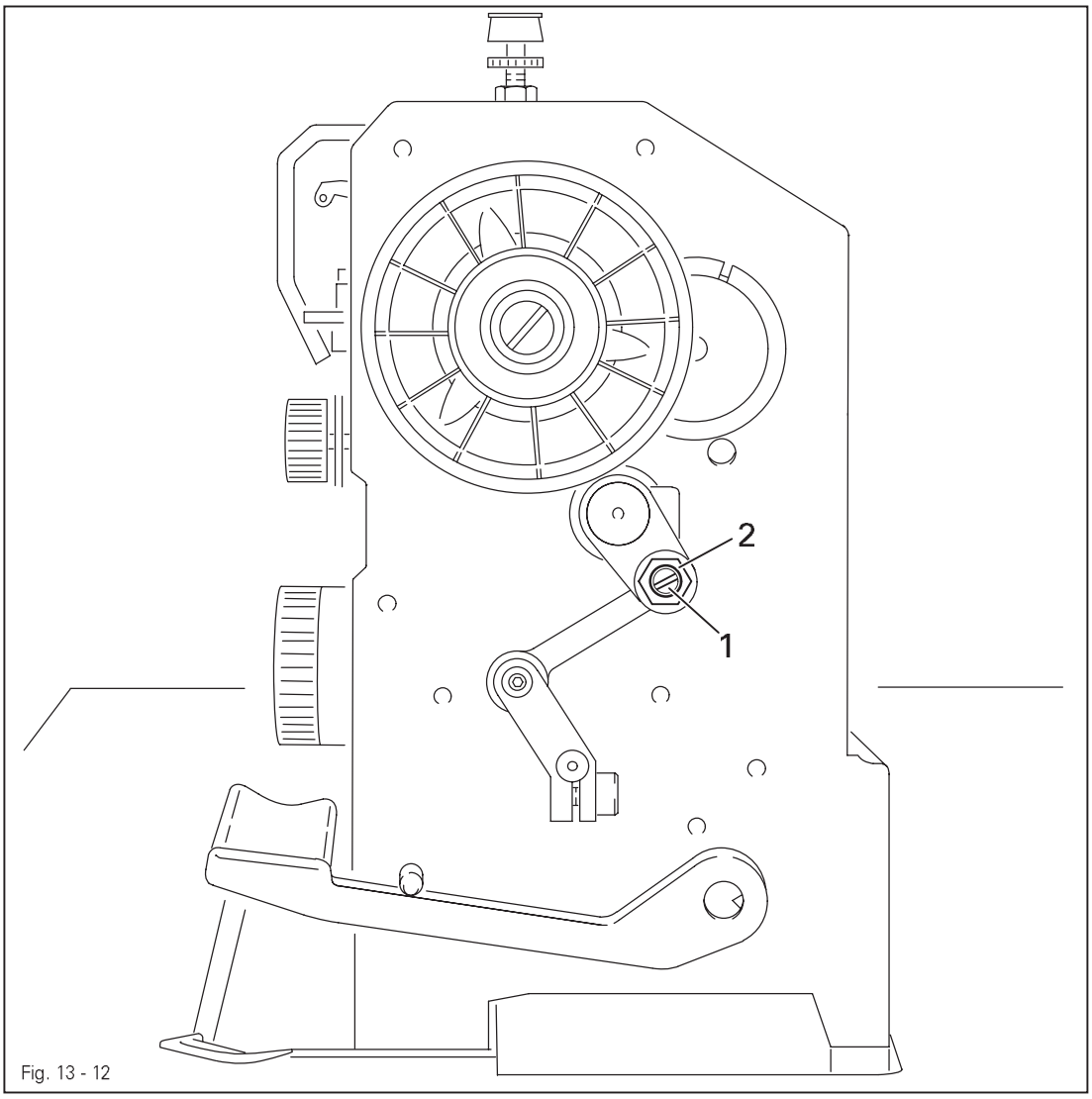


Fig. 13 - 12

- Set the longest stitch.
- Turn eccentric **1** (nut **2**) according to **Requirement** .

13.05.12 Hook shaft bearing and toothed belt tension

Requirement

1. The front edge of the hook shaft **6** must be at a distance of **14.5 mm** to the needle center. At the same time, the slot in the hook shaft bearing **1** (see arrow) must be parallel to the bedplate and pointing opposite to the direction of sewing.
2. The toothed belt should be tightened in such a way that, when the gauge is pushed onto the toothed belt, the marking in the gauge window corresponds to the marking on the bushing.

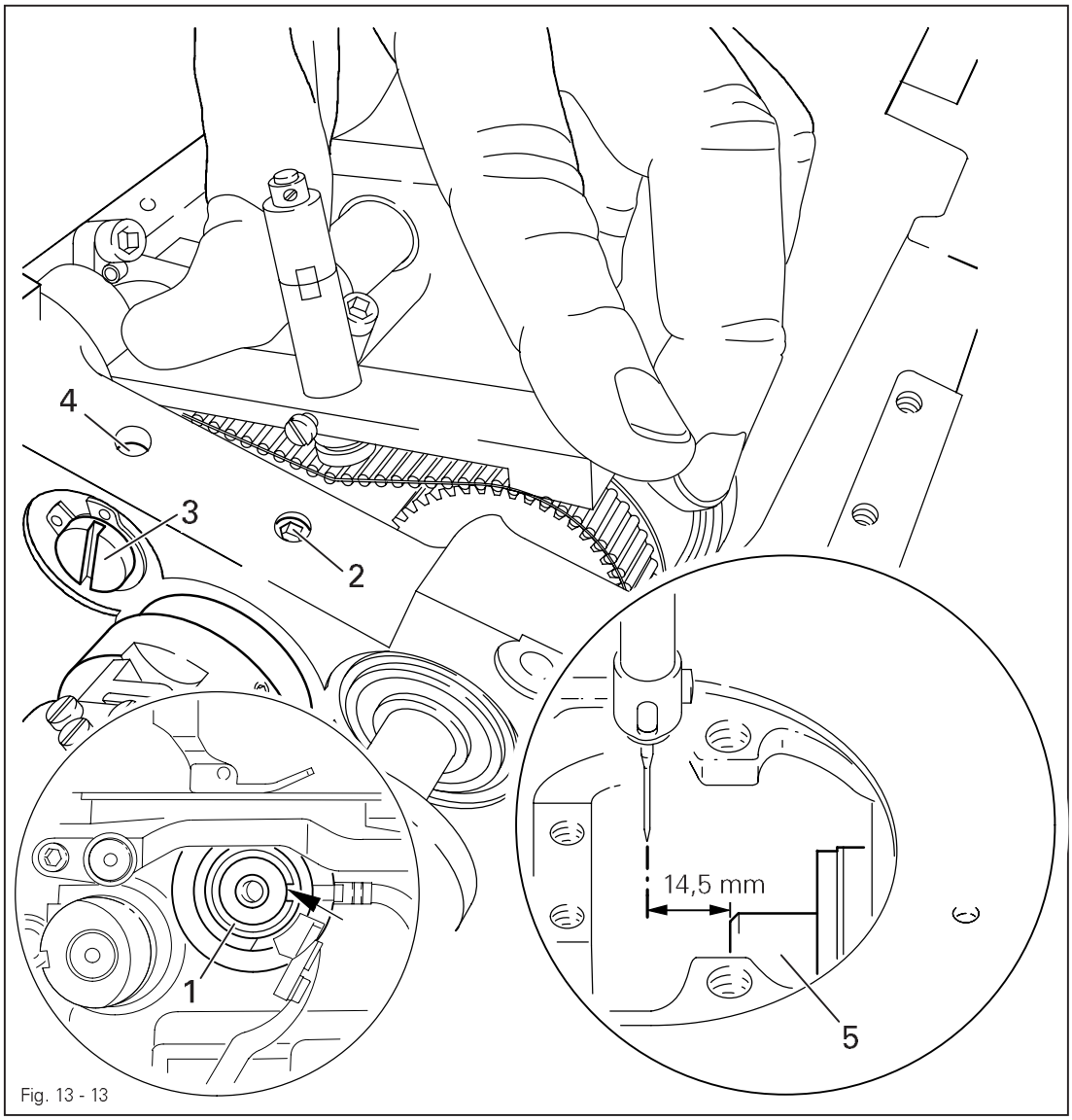
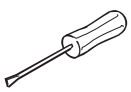


Fig. 13 - 13



- Align hook shaft bearing **1** (screw **2**) according to **requirement 1.**
- Push the gauge (Part-No. **61-111 639-76**) onto the toothed belt so that it is centred to the toothed belt and touching the bearing of the sliding shaft. The gauge window must be facing the hook.
- Eccentric **3** (screw **4**) clockwise in accordance with **requirement 2,** taking care that the axial position of eccentric **3** is not altered.

13.05.13 Hook lubrication

Requirement

1. The centrifugal disk **1** must be positioned **1.5 mm** in front of the oil ring **3.**
2. When the machine is running at full speed, after approx. **10** seconds a mark should be made by a fine stripe of oil on the strip of paper placed over the needle plate cutout.

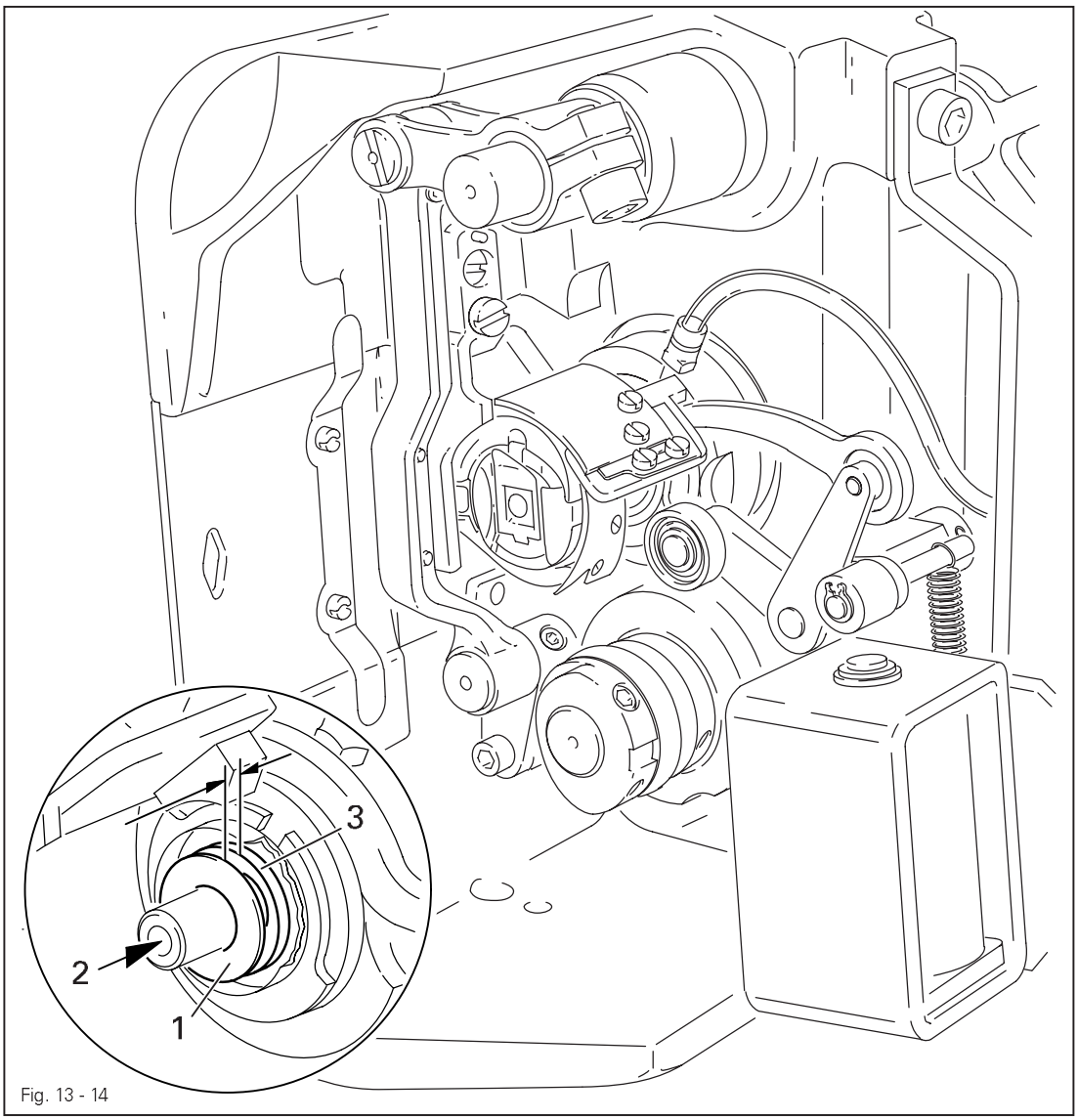


Fig. 13 - 14

The adjustment is only necessary if the wick has been replaced.
When replacing the wick, make sure that the new wick is impregnated with oil.

- Move the centrifugal disk **1** (screw **2**) according to **requirement 1.**
- Check **requirement 2.** If necessary, move centrifugal disk **1.**

13.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger

Requirement

With the needle at **1.8 mm** after BDC,

1. the hook point **6** must point to the middle of the needle and be at a distance of **0.05 mm - 0.1 mm** to the clearance cut of the needle, and
2. the top edge of the needle eye must be **0.8 mm** below the hook point.
3. Between the projection of the bobbin case position finger **4** and the bottom of the retaining groove there should be a distance of **0.5 mm**.

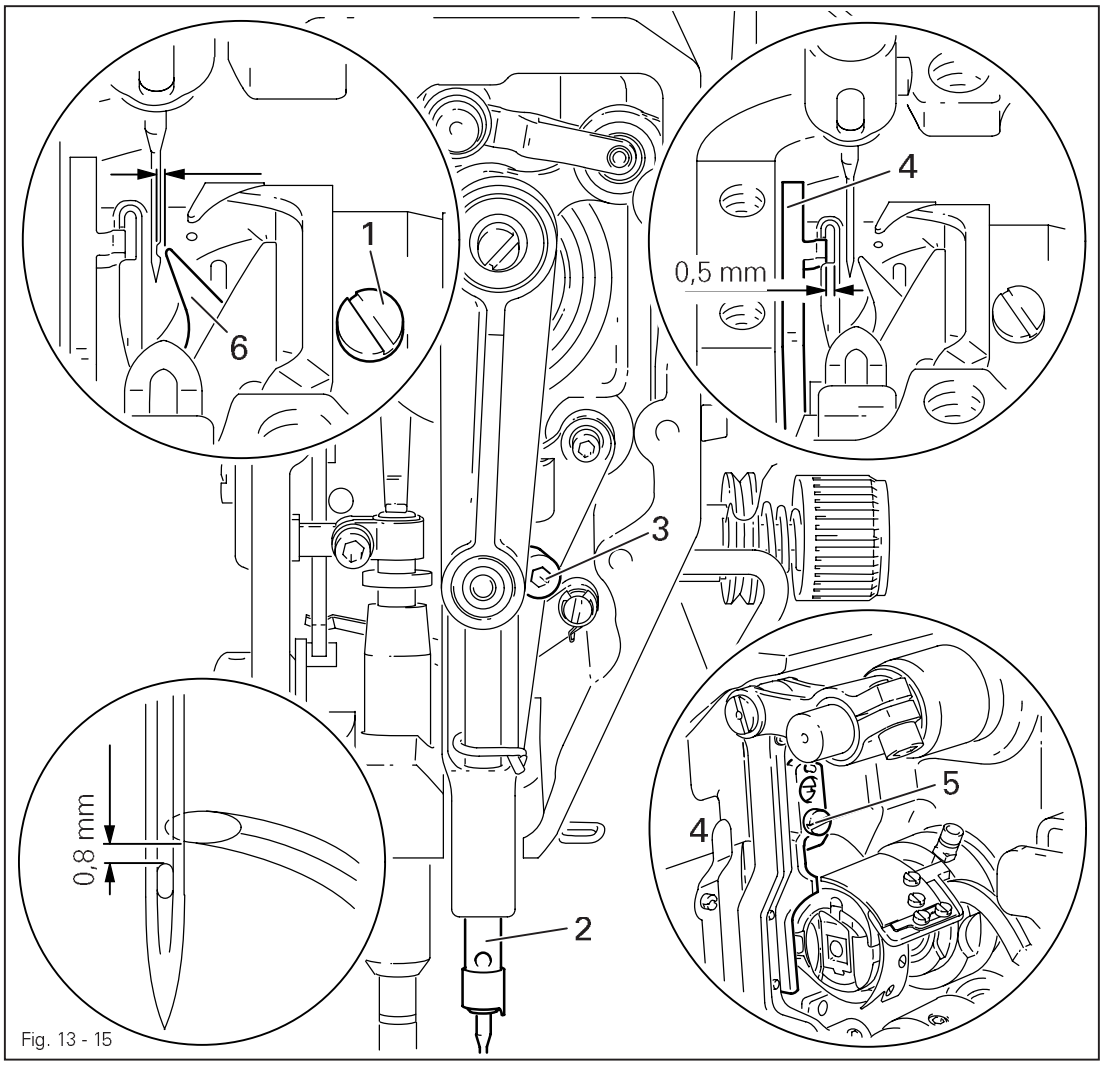


Fig. 13 - 15

- Using the adjustment pin, position the needle bar at **1.8 mm** after BDC.
- Adjust the hook according to **requirement 1.**
- Tighten screw **1.**
- Move needle bar **2** (screw **3)** without turning it according to **requirement 2.**
- Align bobbin case position finger **4** (screw **5)** according to **requirement 3.**

13.05.15 Thread check spring and slack thread regulator

Requirement

1. The motion of the thread check spring must be completed when the needle point enters the material (spring stroke approx. **7 mm**).
2. When the thread loop is at its largest when going around the hook, the thread check spring must have moved by approx. **1 mm.**

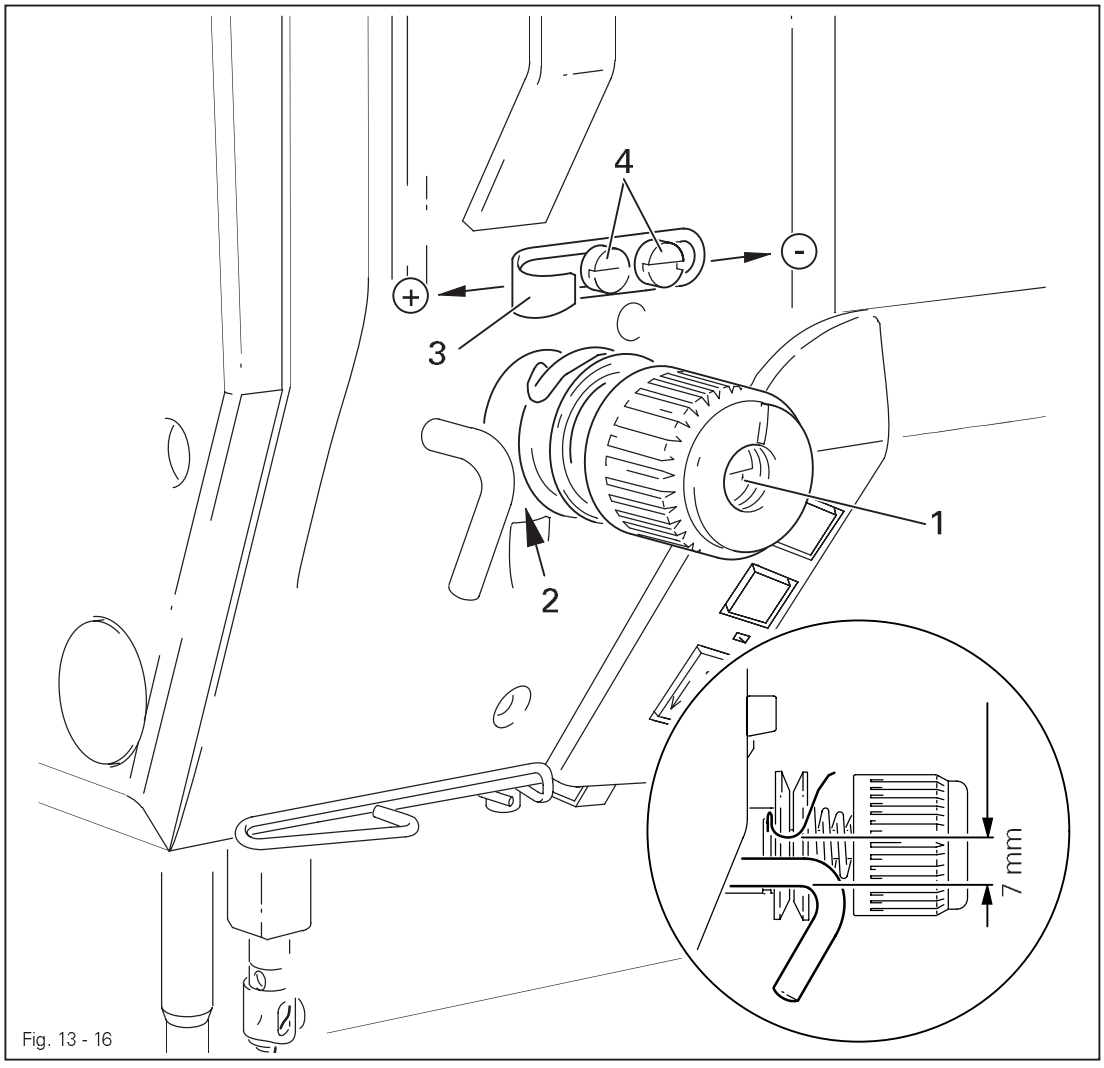


Fig. 13 - 16

- Turn thread tension **1** (screw **2**) according to **requirement 1.**
- Turn thread tension **3** (screw **4**) according to **requirement 2.**

Due to technical sewing reasons it may be necessary to deviate from the spring stroke indicated above.
Move the slack thread regulator **3** (screw **4**) toward the "+" (= more thread) or toward the "-" (= less thread)

13.05.16 Position of knee lever

Requirement

1. When the knee lever is in its resting position, the axle **5** must be parallel to the bedplate.
2. When the presser foot is resting on the needle plate, the presser bar lifting lever **6** must be touching the circlip **8** lightly and be at a distance of approx. **1 mm** from lifting piece **7**.

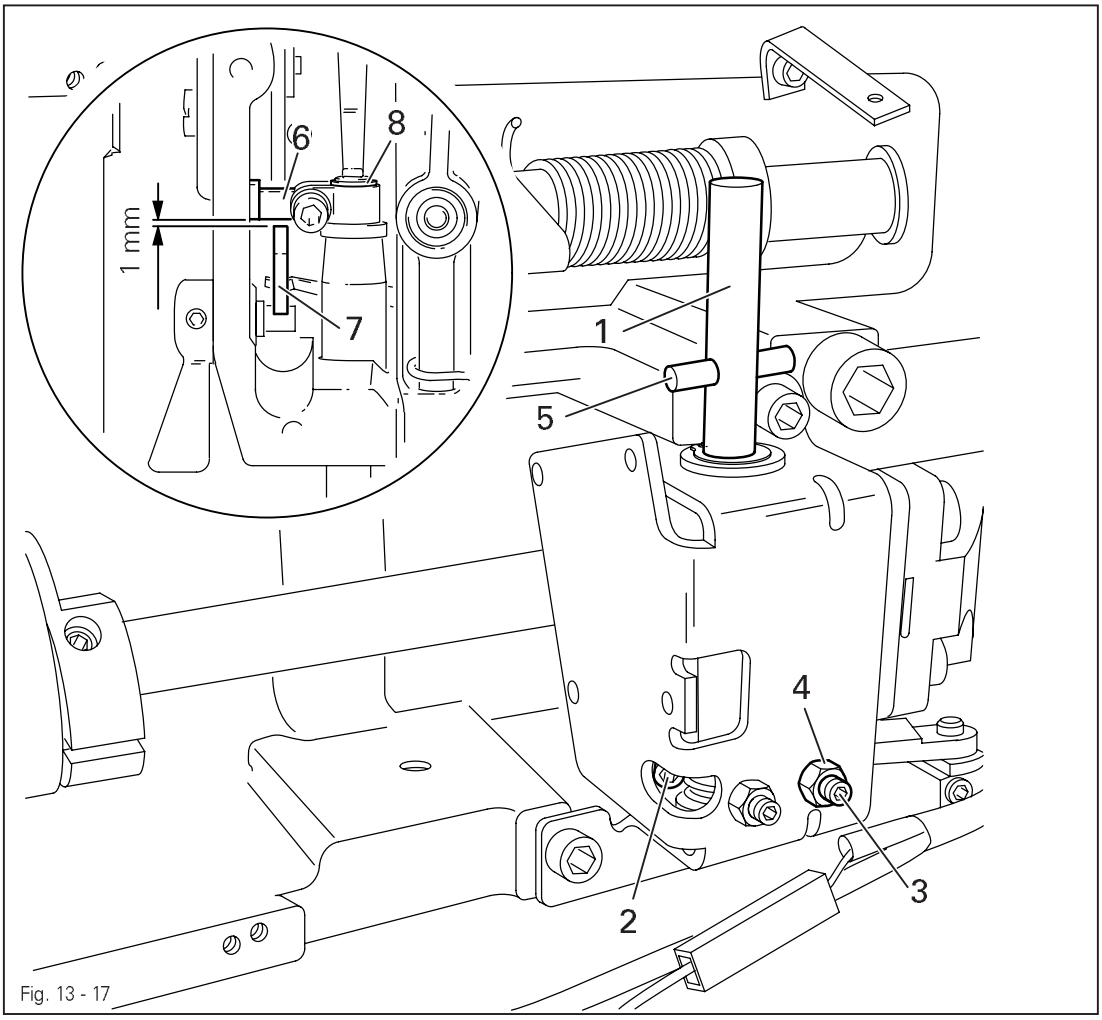


Fig. 13 - 17

- Lower the presser foot onto the needle plate.
- Turn shaft **1** (screws **2**) according to **Requirement 1.**
- Turn screw **3** (nut **4**) according to **Requirement 2.**

13.05.17 Knee lever stop

Requirement

When the knee lever is fully actuated,

1. the presser foot must be raised approx. **9 mm** (or approx. **13 mm** for a large needle bar stroke) above the needle plate, and
2. lever **3** must swing down automatically.

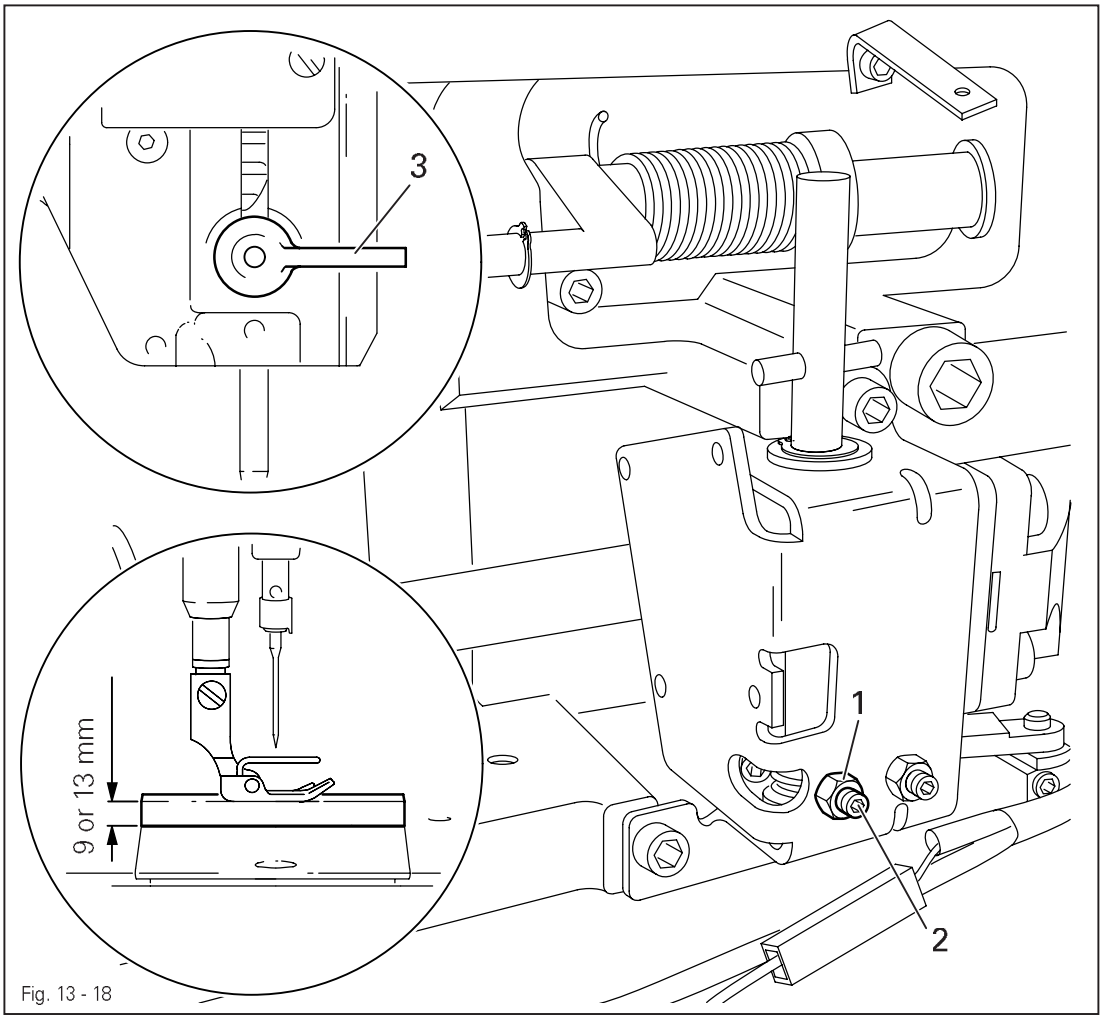
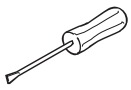


Fig. 13 - 18



- Loosen nut **1** and unscrew screw **2** a few turns.
- Raise the presser foot and slide a **9 mm** (for small needle bar stroke) or **13 mm** (for large needle bar stroke) thick spacer under the presser foot.
- Swing down lever **3**
- Move the knee lever until it is fully actuated. The presser foot must remain on the spacer.
- Now turn screw **2** as far as it will go.
- Turn screw **2** a half turn back and tighten nut **1.**

13.05.18 Bobbin winder

Requirement

1. With the bobbin winder on, the drive wheel **1** must engage reliably.
2. With the bobbin winder off, the friction wheel **5** must not be driven by the drive wheel **1.**
3. The bobbin winder must turn off automatically when the thread level is approx. **1 mm** from the edge of the bobbin.

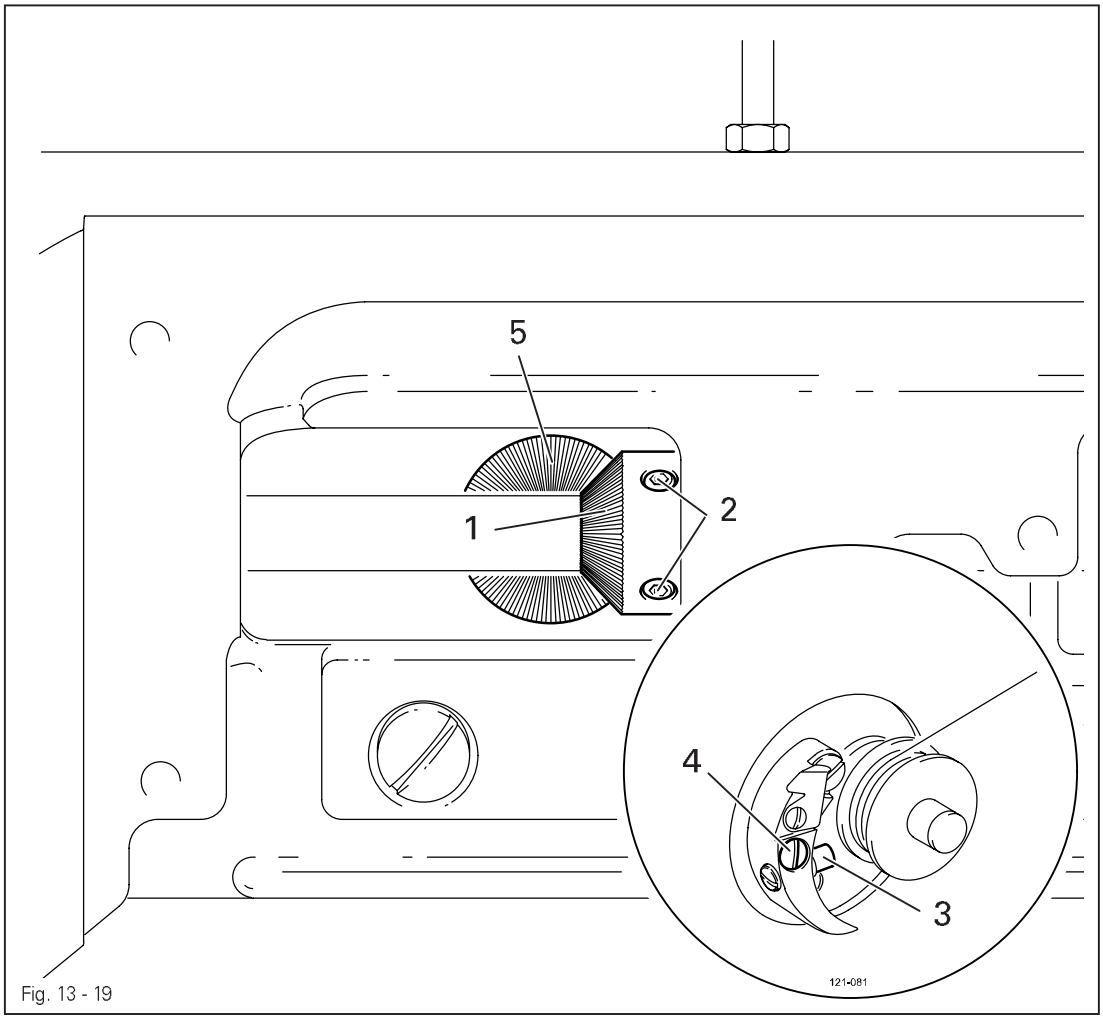
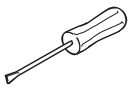


Fig. 13 - 19



- Move drive wheel **1** (screws **2)** in accordance with **requirement 1** and **2.**
- Move bolt **3** (screw **4)** in accordance with **requirement 3.**

13.05.19 Limiting the stitch length

The maximum stitch length which can be selected can be limited mechanically.

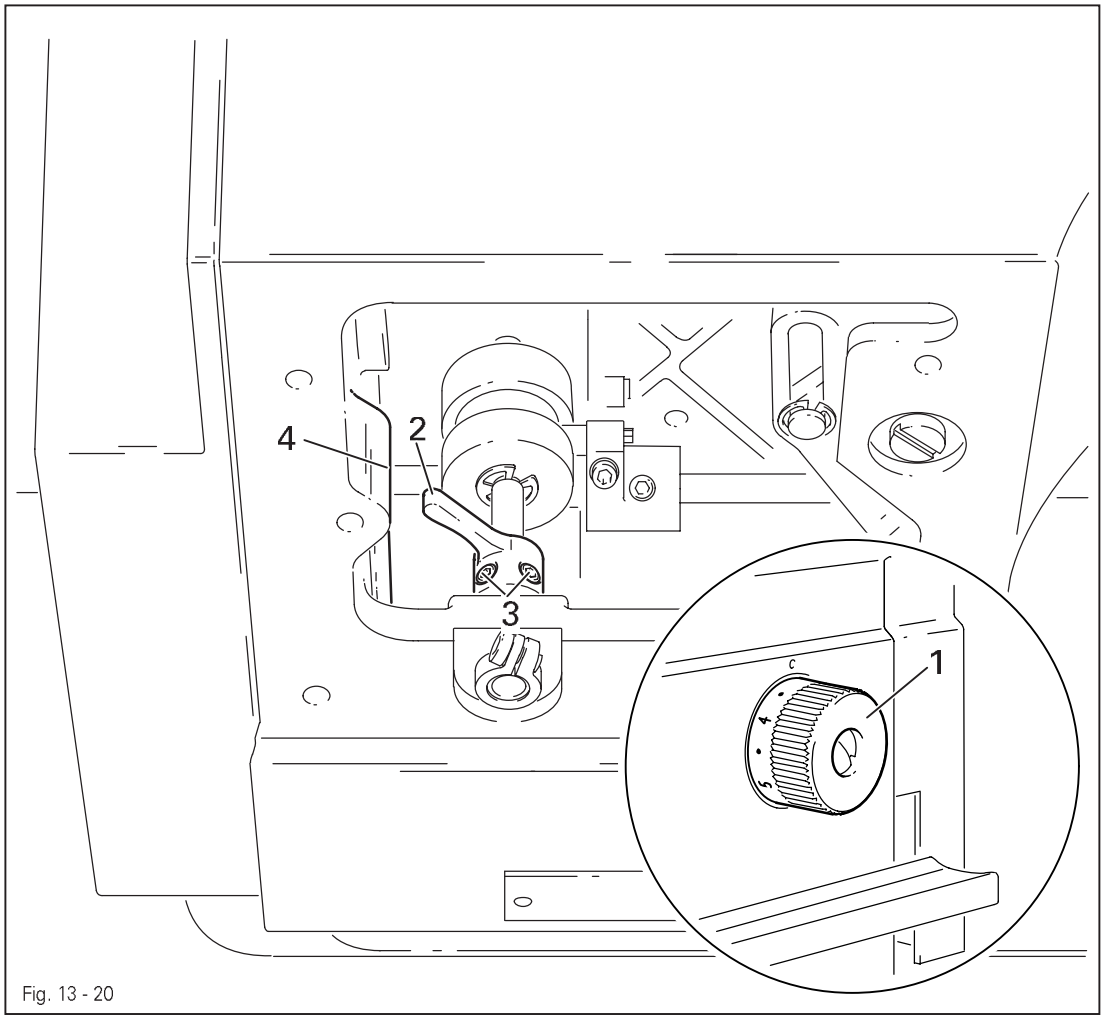


Fig. 13 - 20

When using Version **A** and **B** part sets, the maximum adjustable stitch length must **not be larger** than **3.0** or **4.5 mm** (see chapter **3 Specifications**, in the instruction manual)!

- Set the desired maximum stitch length with regulator disk **1.**
- Move crank **2** (screws **3**) down against stop **4.**

13.05.20 Presser foot pressure

Requirement
The material must be fed reliably. In the process, pressure marks on the material must not be made.

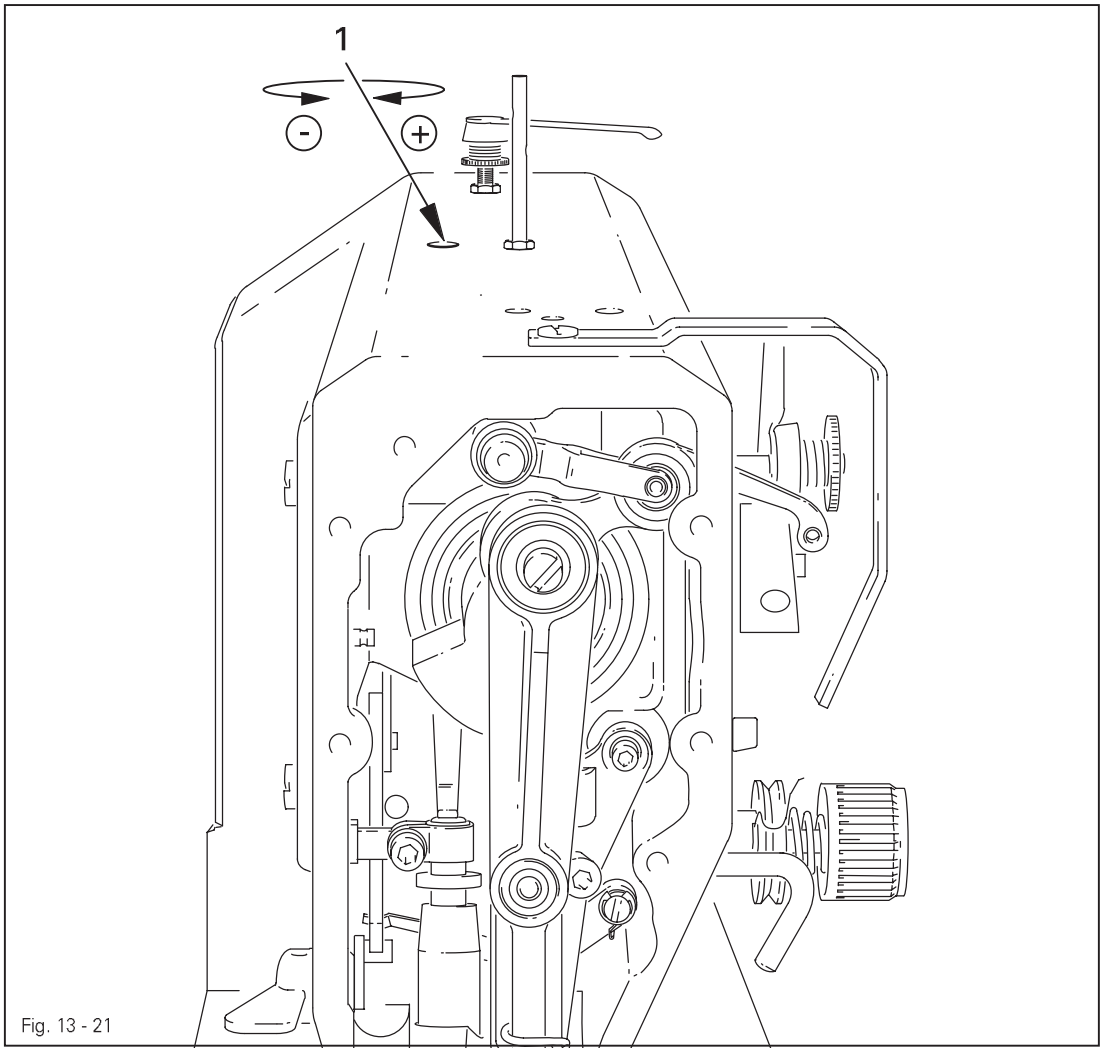
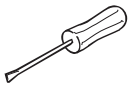


Fig. 13 - 21



- Turn screw **1** in accordance with the **requirement.**

13.05.21 Modifying the needle bar stroke

The needle bar stroke is preset in the factory according to **requirement**. The needle bar stroke can be modified later if specific operating conditions make it necessary to do so.

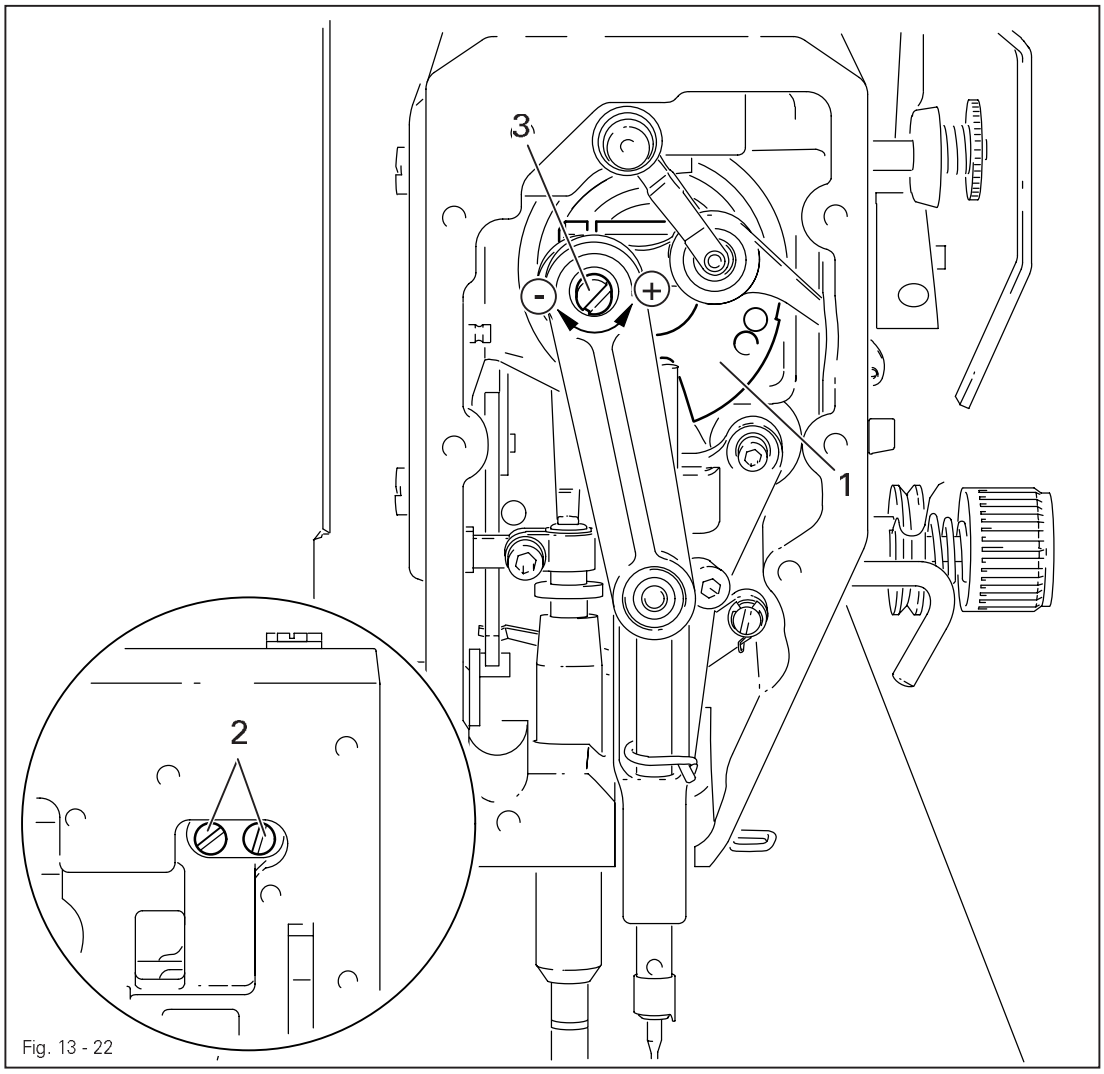


Fig. 13 - 22

When the needle bar stroke is altered, it is absolutely necessary to readjust the needle height! With a **36 mm** needle bar stroke, the maximum speed must be limited to **3800** spm.

- Via the hand wheel, turn crank **1** until the screws **2** can be accessed from the side opening of the housing.
- Turn eccentric **3** (screws **2**) as far as possible toward "**+**" (= large needle bar stroke) or toward "**-**" (= small needle bar stroke).
- Adjust needle height (see chapter **13.05.02 Preadjusting the needle height and** /or chapter **13.05.14 Needle rise, hook-to-needle clearance, needle height and bobbin case position finger.**

13.06 Adjusting the edge trimmer –731/01

13.06.01 Zero position of the knife

Requirement
With the edge trimmer switched off, the knife should not move when the balance wheel is turned.

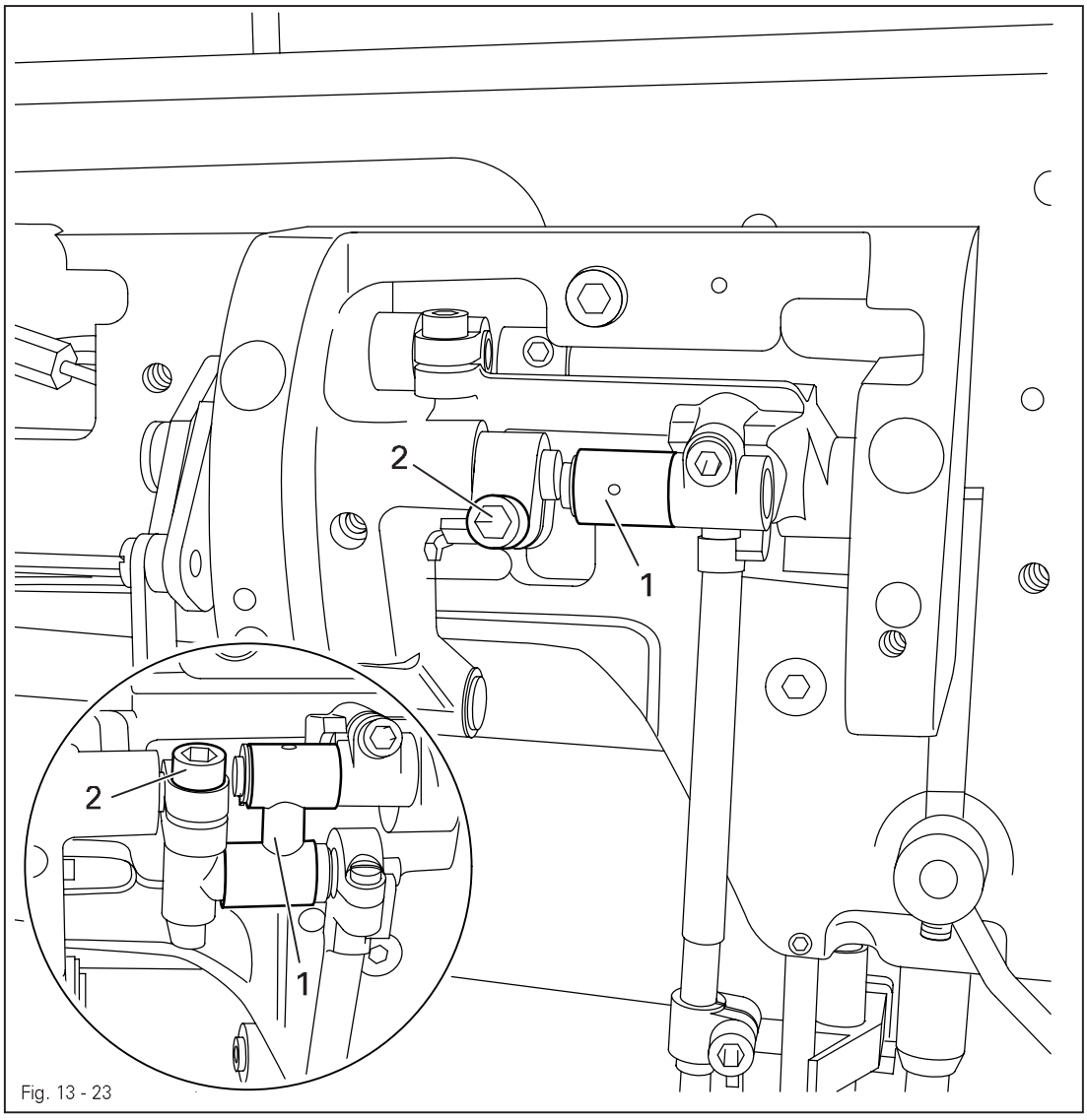


Fig. 13 - 23

- Turn crank **1** (screw **2**) according to the **requirement.**

13.06.02 Cutting motion

Requirement
With the edge trimmer switched on and the needle bar at its t.d.c. on the **PFAFF 1183,** or at its b.d.c. on the **PFAFF 1181,** the knife should be at the top of its stroke.

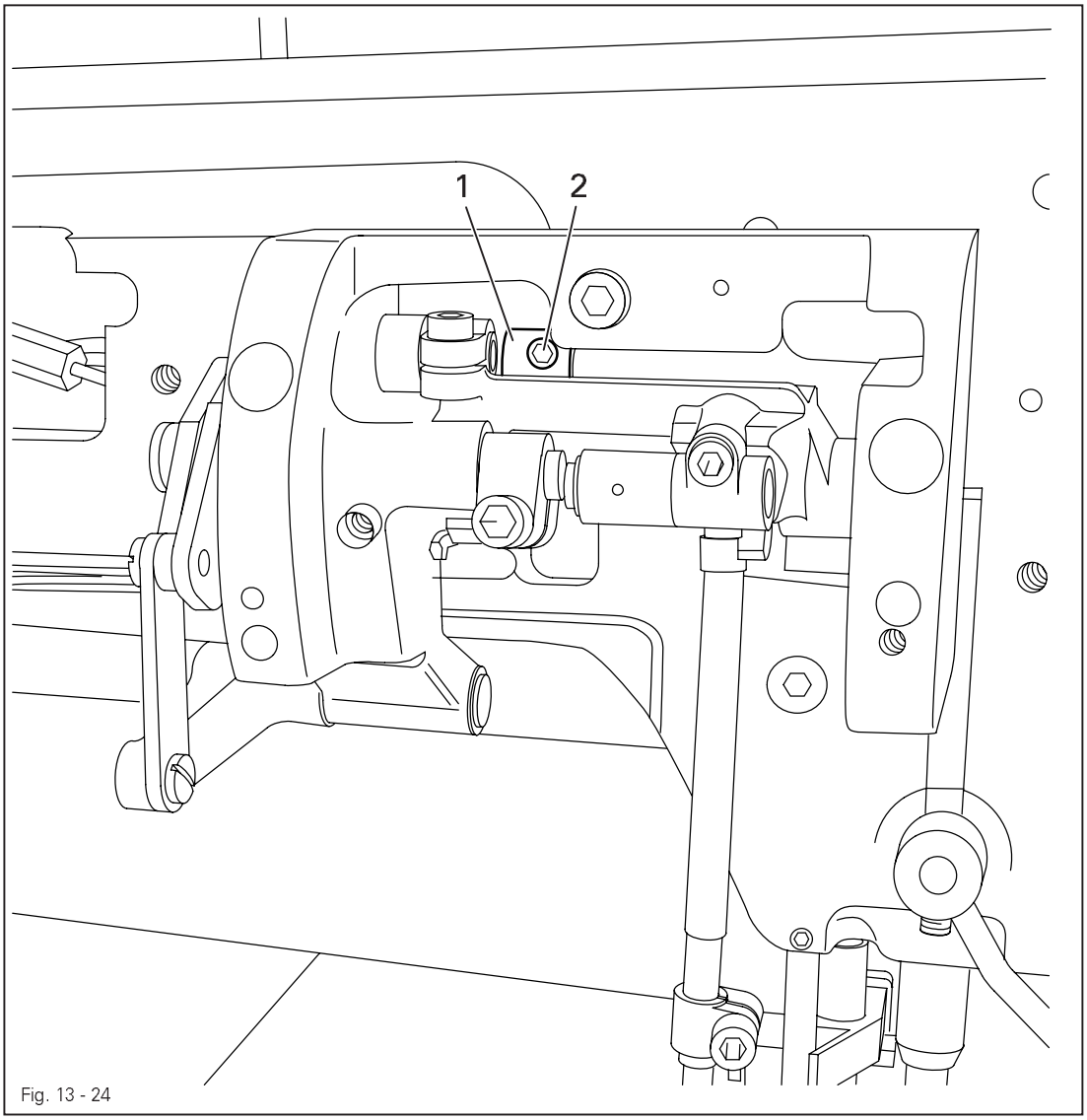


Fig. 13 - 24

- Switch on the edge trimmer and bring the needle bar to t.d.c. or b.d.c. (see **requirement**).
- Turn eccentric **1** (two screws **2**) according to the **requirement.**

13.06.03 Knife height

Requirement
When the knife is at the bottom of its stroke, the front edge of the knife blade should be approx. **0.5 mm** below the top edge of the stationary knife.

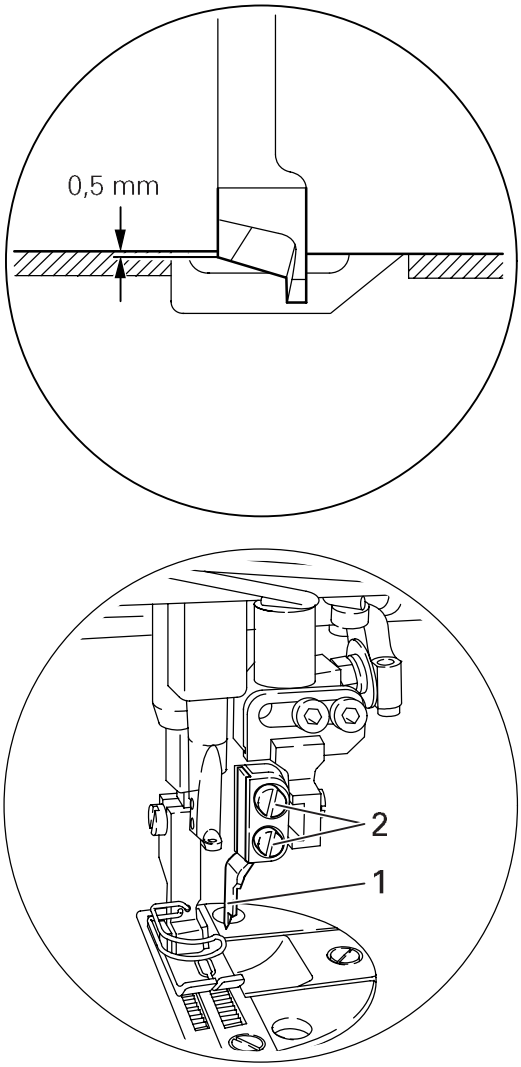
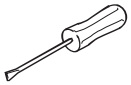


Fig. 13 - 25



- Switch on the edge trimmer and bring the knife to the bottom of its stroke.
- Adjust knife **1** (screws **2**) according to the **requirement**.

13.06.04 Cutting angle of the knife

Requirement
The knife should be
1. Touching the stationary knife **6** without counter pressure and
2. Be at a **0.1 mm** slant to the stationary knife **6.**

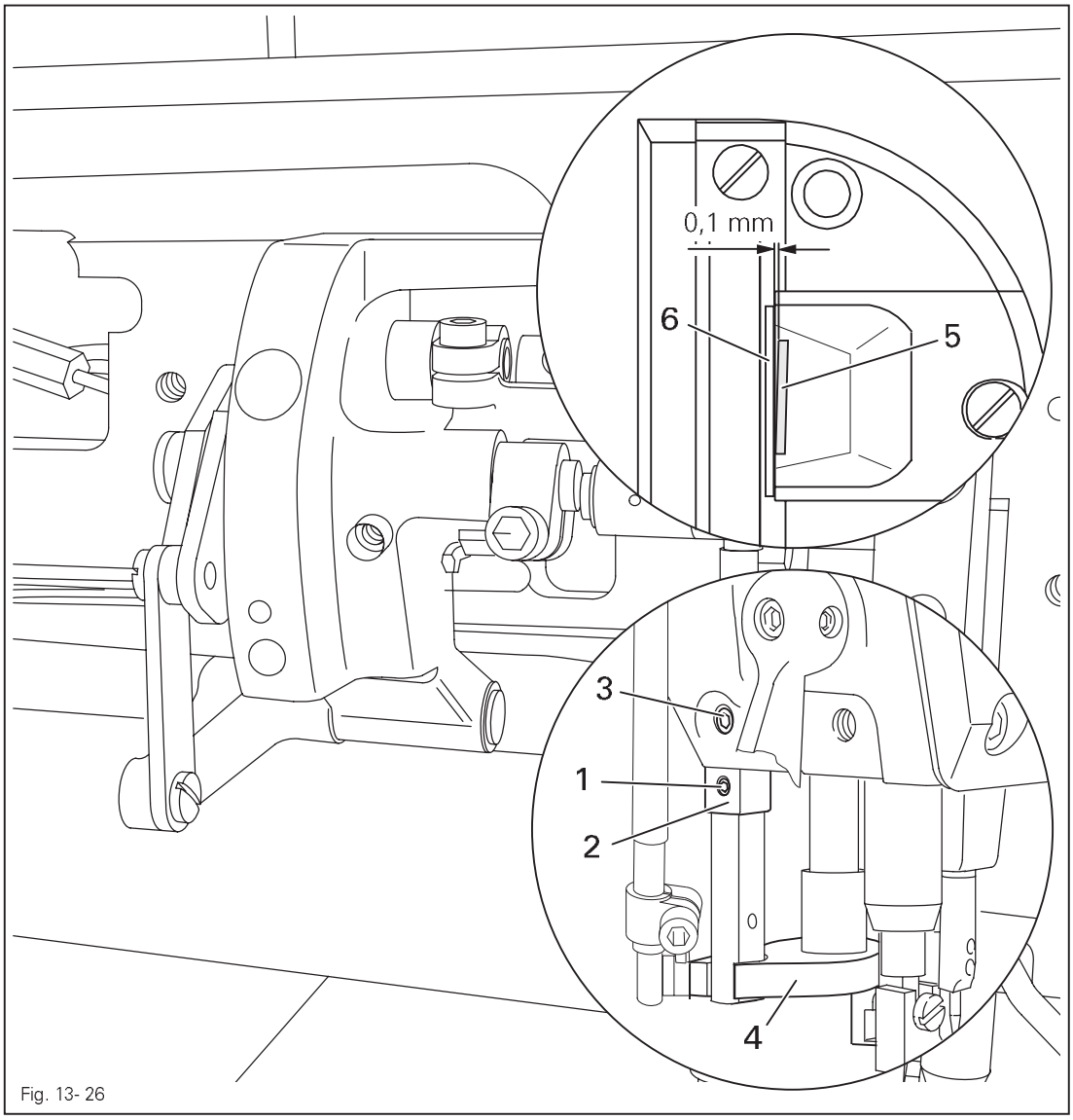


Fig. 13- 26

- Loosen screws **1.**
- Adjust eccentric **2** (screw **3**) in accordance with the **requirements**.
- Tighten screws **1.**

Make sure that knife guide **4** is moving smoothly!

13.06.05 Knife position in sewing direction

Requirement
When the needle is at its b.d.c., the centre of the knife blade should be positioned at "needle centre".

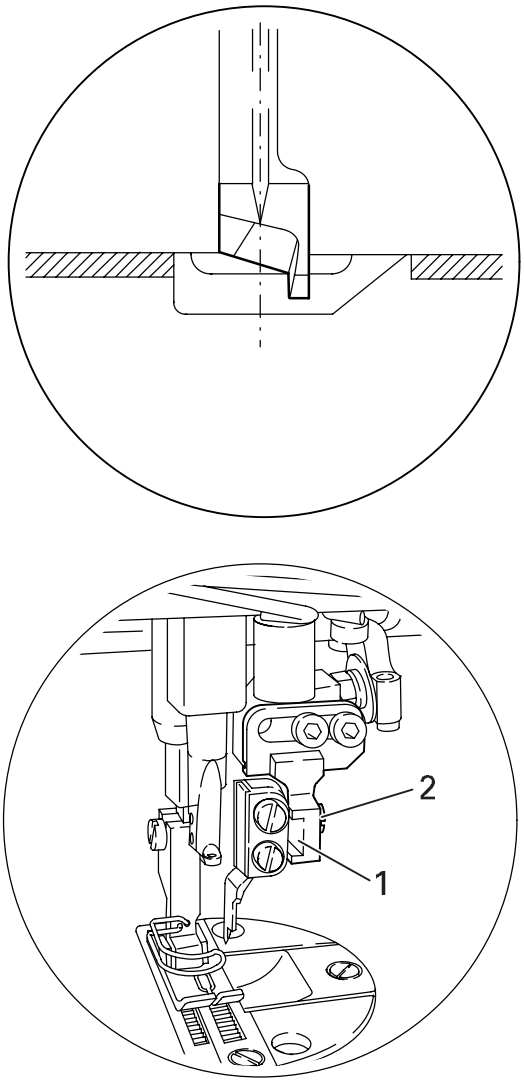
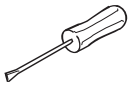


Fig. 13- 27



- Adjust knife bracket **1** (screw **2**) according to the **requirement.**

13.06.06 Knife position crosswise to sewing direction

Requirement
The knife should be resting on the stationary knife **3** with light pressure.

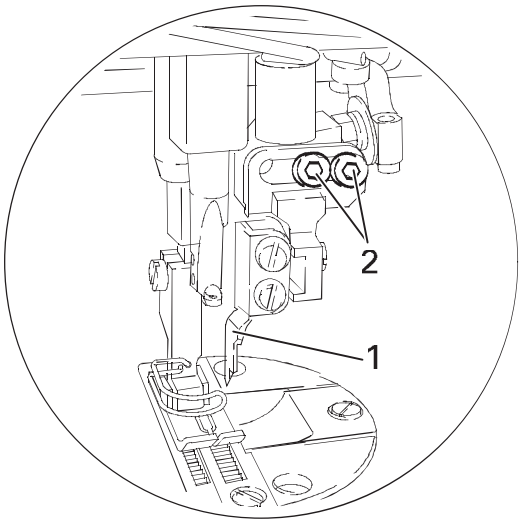


Fig. 13- 28

- Adjust knife bracket **1** (screw **2**) according to the **requirement.**

13.07 Adjusting the thread trimming device -900/24

13.08.01 Adjusting the solenoid / preliminary adjustment of the control cam

Requirement

1. When solenoid **3** is completely extended, roller lever **4** should be at the lowest point of the control cam.
2. When the needle bar is positioned at **1.8 mm** after b.d.c. (needle rise position), roller lever **4** should engage in the appropriate recess of the control cam.

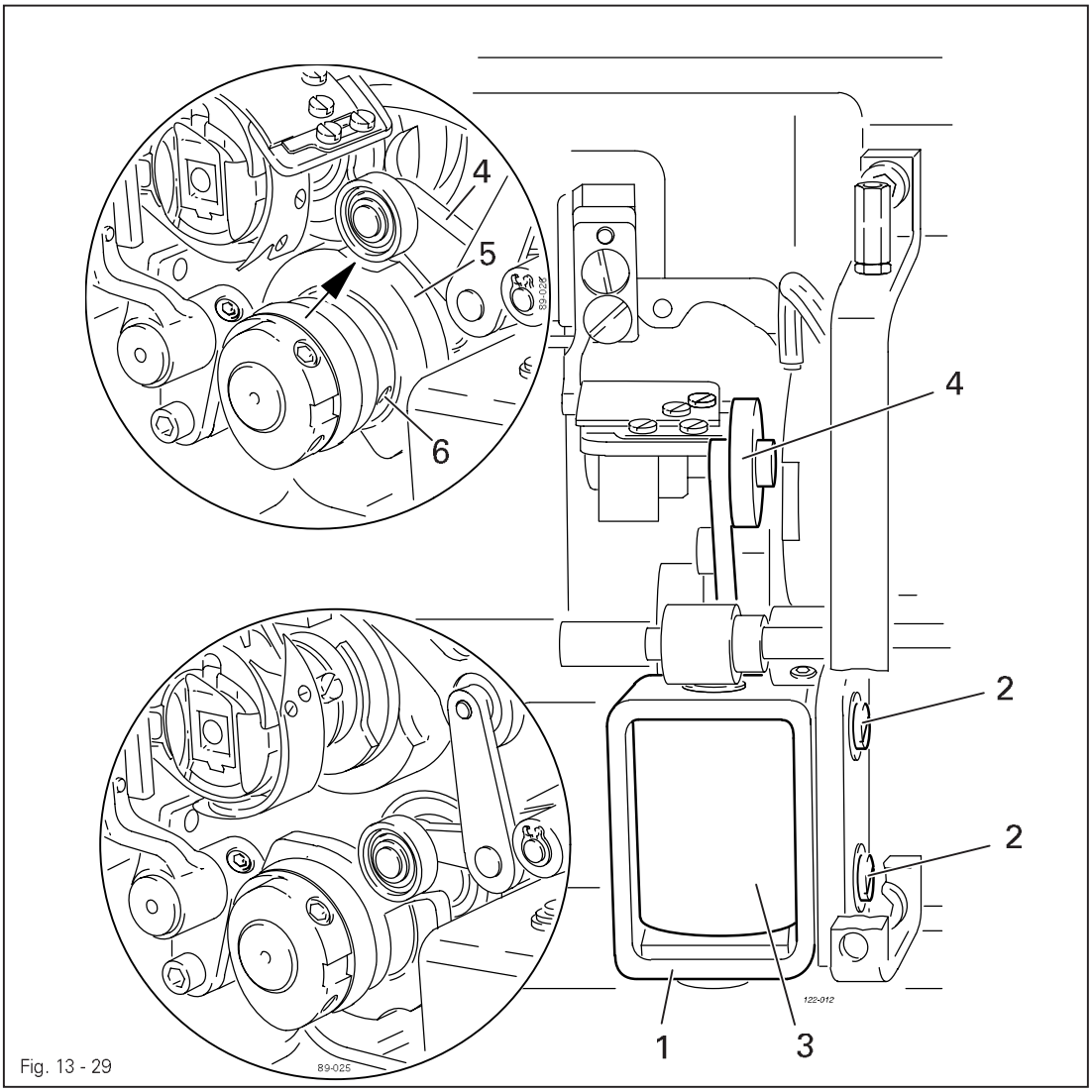
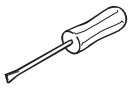


Fig. 13 - 29



- Adjust solenoid holder **1** (screws **2**) in accordance with **requirement 1.**
- Adjust control cam **5** (screws **6**) in accordance with **requirement 2.**

13.07.02 Lateral alignment of the thread catcher

Requirement

1. The tip of the thread catcher **5** must point exactly to the center of the needle.
2. The thread catcher **5** must be horizontal. It must not graze anything when it is operating.

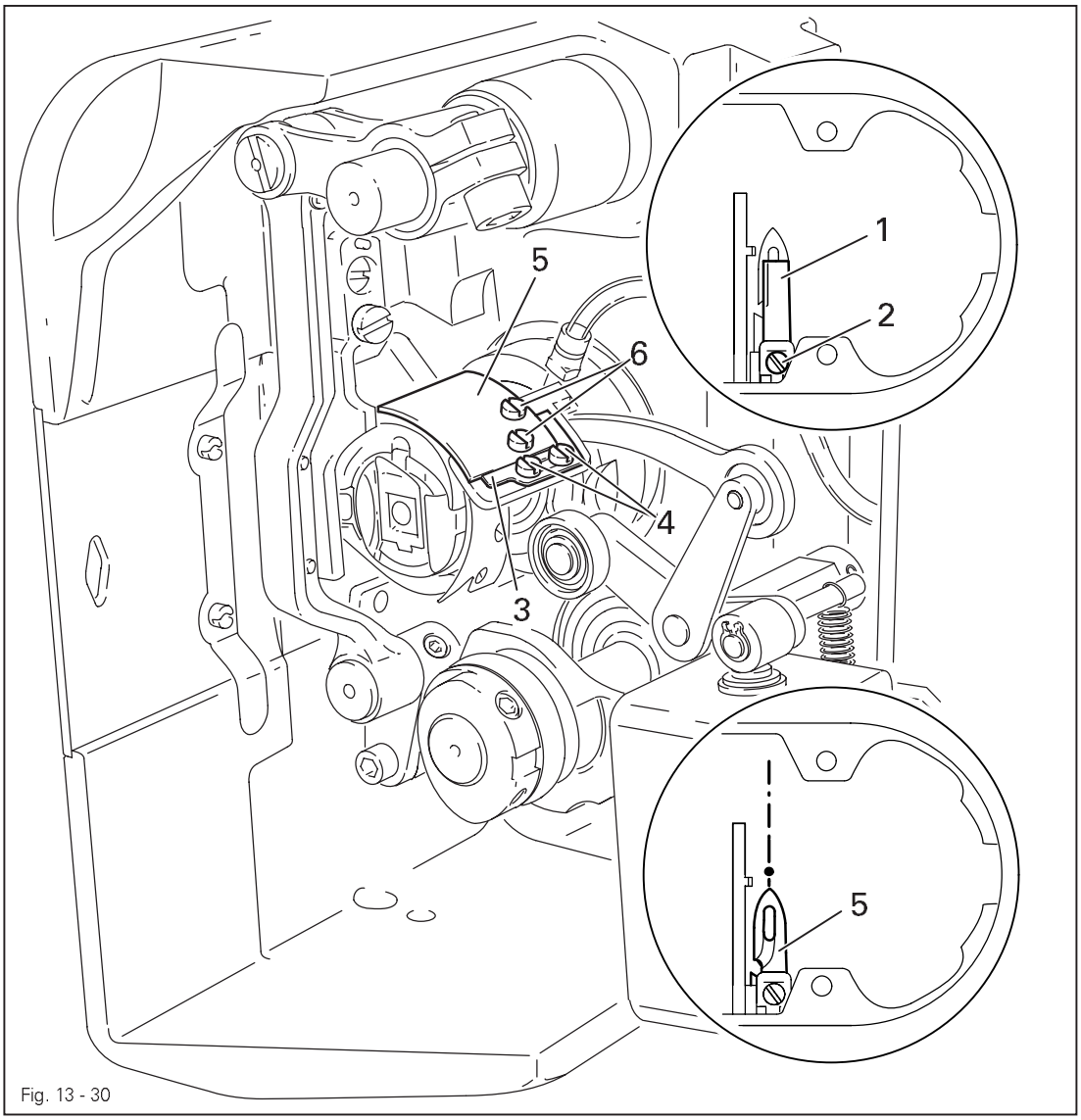
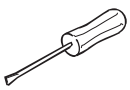


Fig. 13 - 30



- Remove knife **1** (screw **2**).
- Move needle bar to its BDC.
- Loosen stop **3** (screws **4**).
- Position thread catcher **5** (screw **6**) manually in front of the needle.
- Align thread catcher **5** (screws **7**) according to the **requirement**s.

For further adjustments, leave knife **1** removed and stop **3** loosened.

13.07.03 Knife position

Requirement

1. There must be a distance of **4 mm** between the cutting edge of the knife and the needle.
2. The right edge of the knife **1** must not extend beyond the right edge of the thread catcher (see arrow).

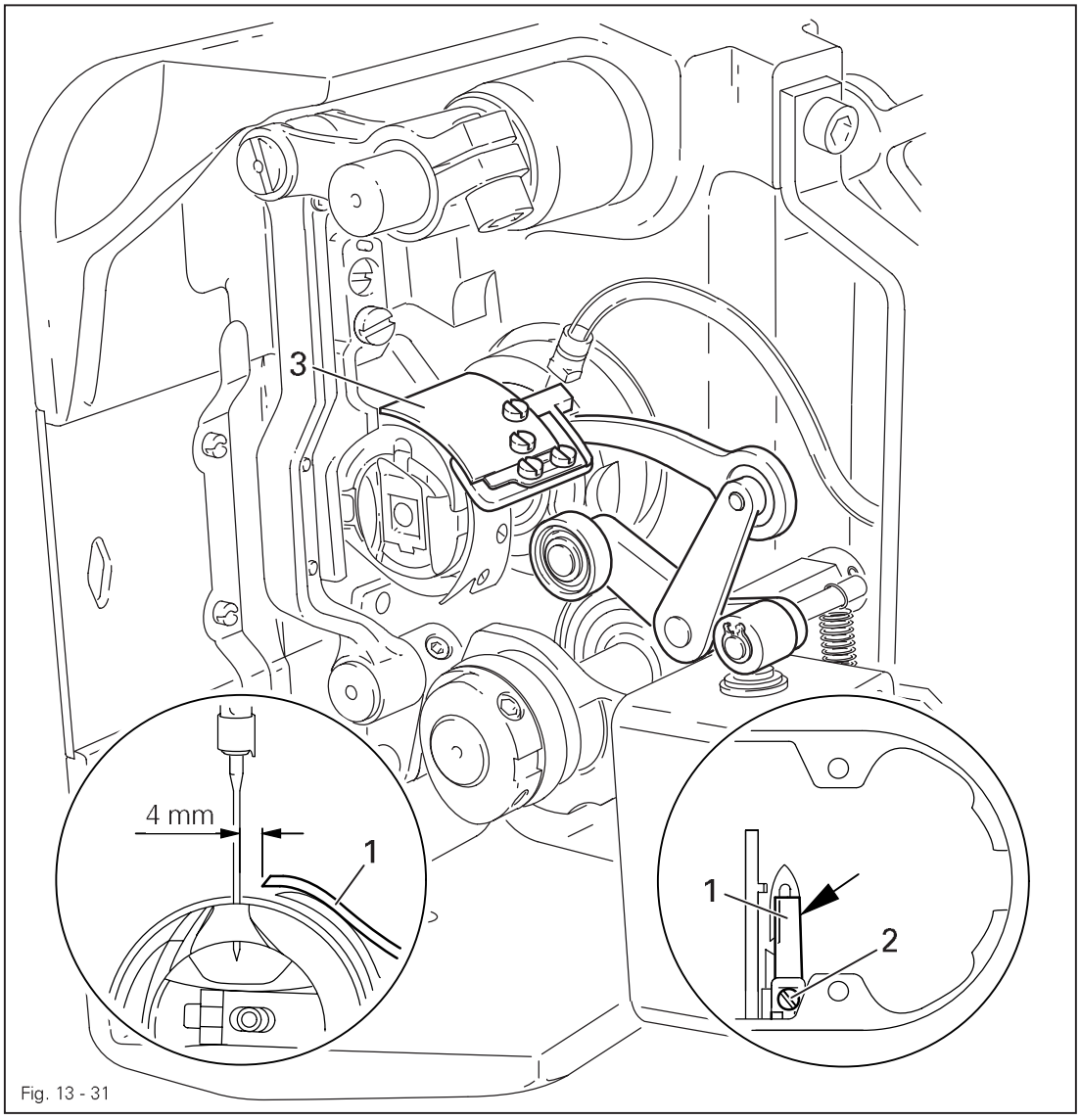
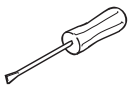


Fig. 13 - 31



- Bring the needle bar to BDC.
- Slide knife **1** under the locking tab and align according to **requirement 1.**
- Tighten screw **2** lightly.
- Adjust thread catcher carrier **3** by hand until the wedge point in the thread catcher is positioned just in front of the cutting edge of the knife.
- Align knife **1** according to **requirement 2** and tighten screw **2.**

13.07.04 Front point of reversal of the thread catcher

Requirement
At the front point of reversal of thread catcher **4**, the tip of the thread catcher cutout should be **1 mm** in front of the bobbin case position finger **5**.

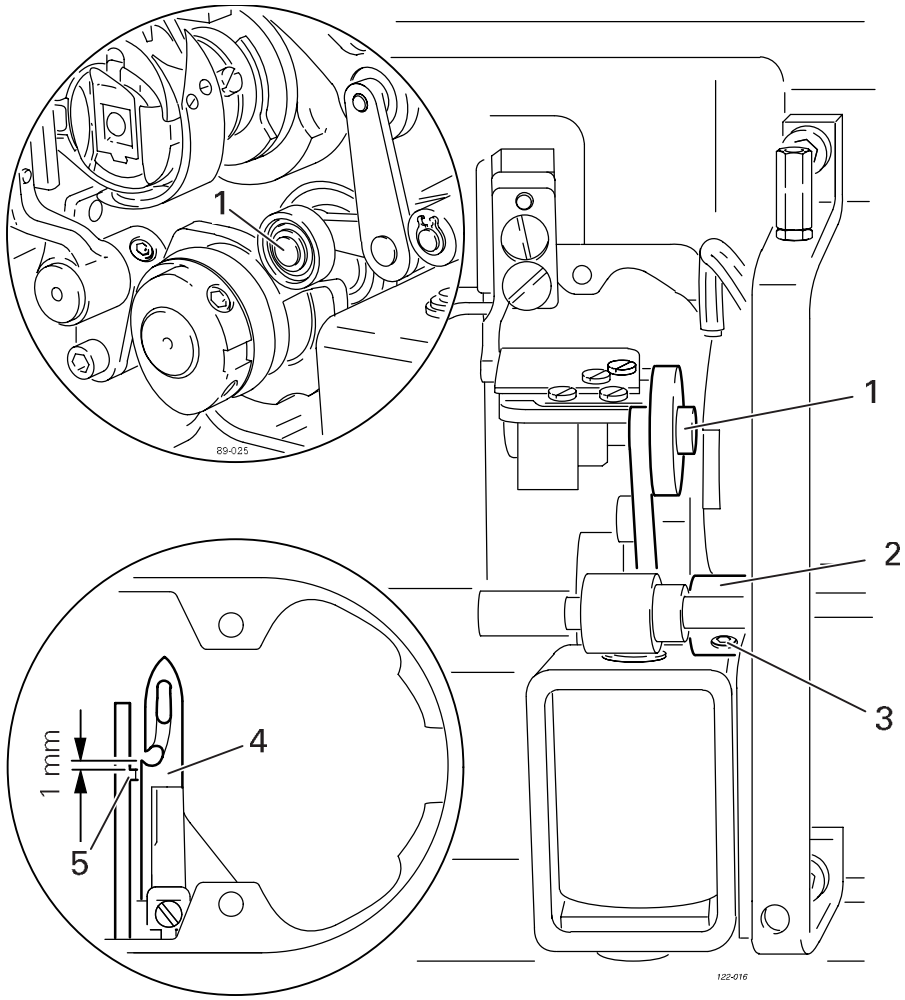


Fig. 13 - 32

- Position roller lever **1** at the lowest point of the control cam.
- Adjust bush **2** (screws **3**) according to the **requirement.**

13.07.05 Manual trimming check

Requirement
Two threads must be cut perfectly both left and right in the cutout of thread catcher **1.**

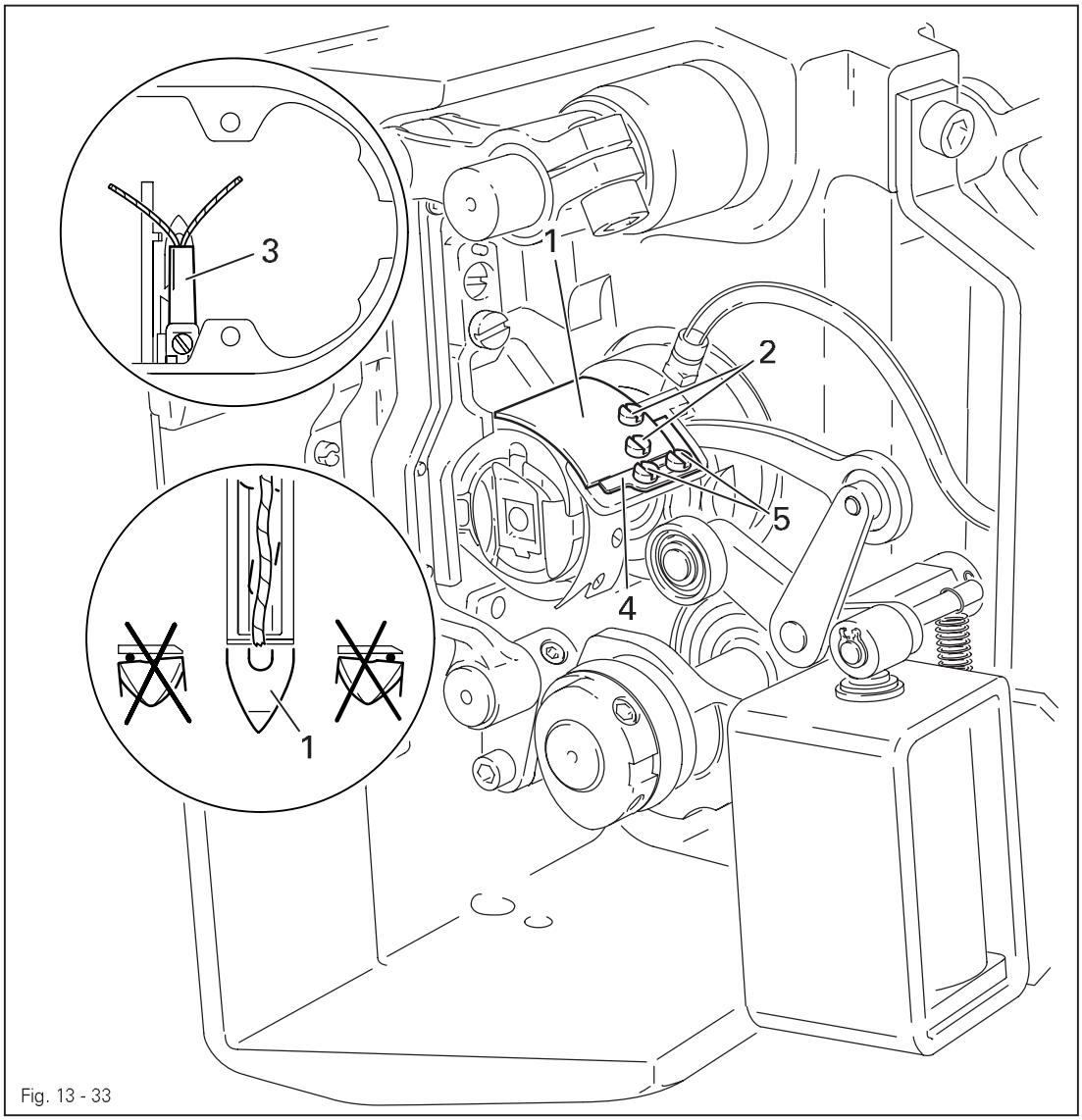


Fig. 13 - 33

- Move thread catcher **1** by hand to its front point of reversal.
- Double the thread and insert into catcher cutout.
- Carry out trimming operation manually.
- If the threads are not cut according to the **requirement**, align thread catcher **1** (screws **2**) with knife **3** accordingly.
- Move stop **4** against thread catcher **1** and tighten screws **5.**
- Check chapter **13.07.02 Lateral alignment of the thread catcher**, and readjust if necessary.

13.07.06 Needle thread tension release

Requirement

1. The magnet lift should be **1.5 mm.**
2. When the magnet **5** is operated by hand, there should be a distance of at least **0.5 mm** between the tension discs **6.**

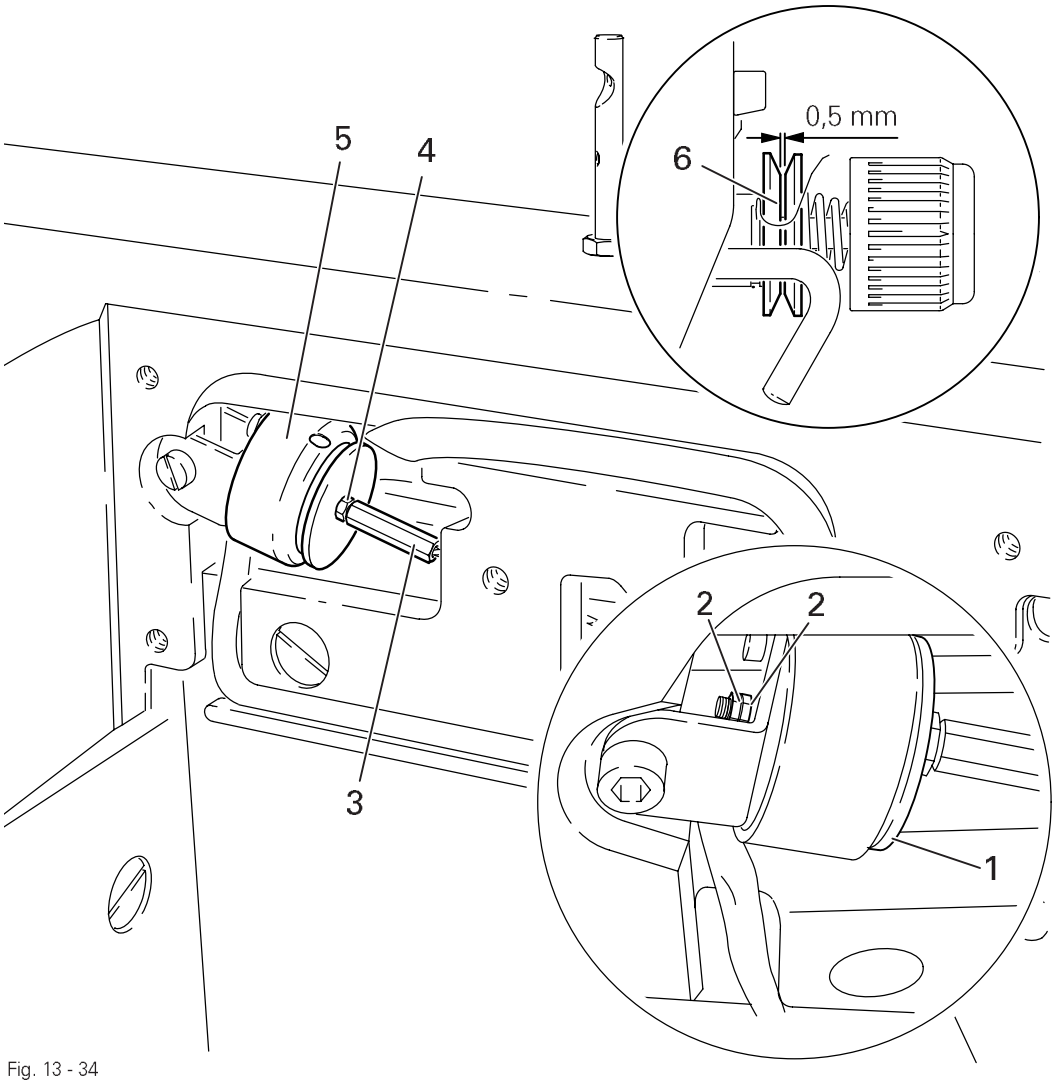


Fig. 13 - 34

- Adjust disc **1** (nuts **2**) according to the **requirement.**
- Adjust screw **3** (nut **4**) according to the **requirement.**

13.07.07 Readjusting the control cam

Requirement
When the take-up lever is in its t.d.c., control cam **1** should have moved thread catcher **3**.

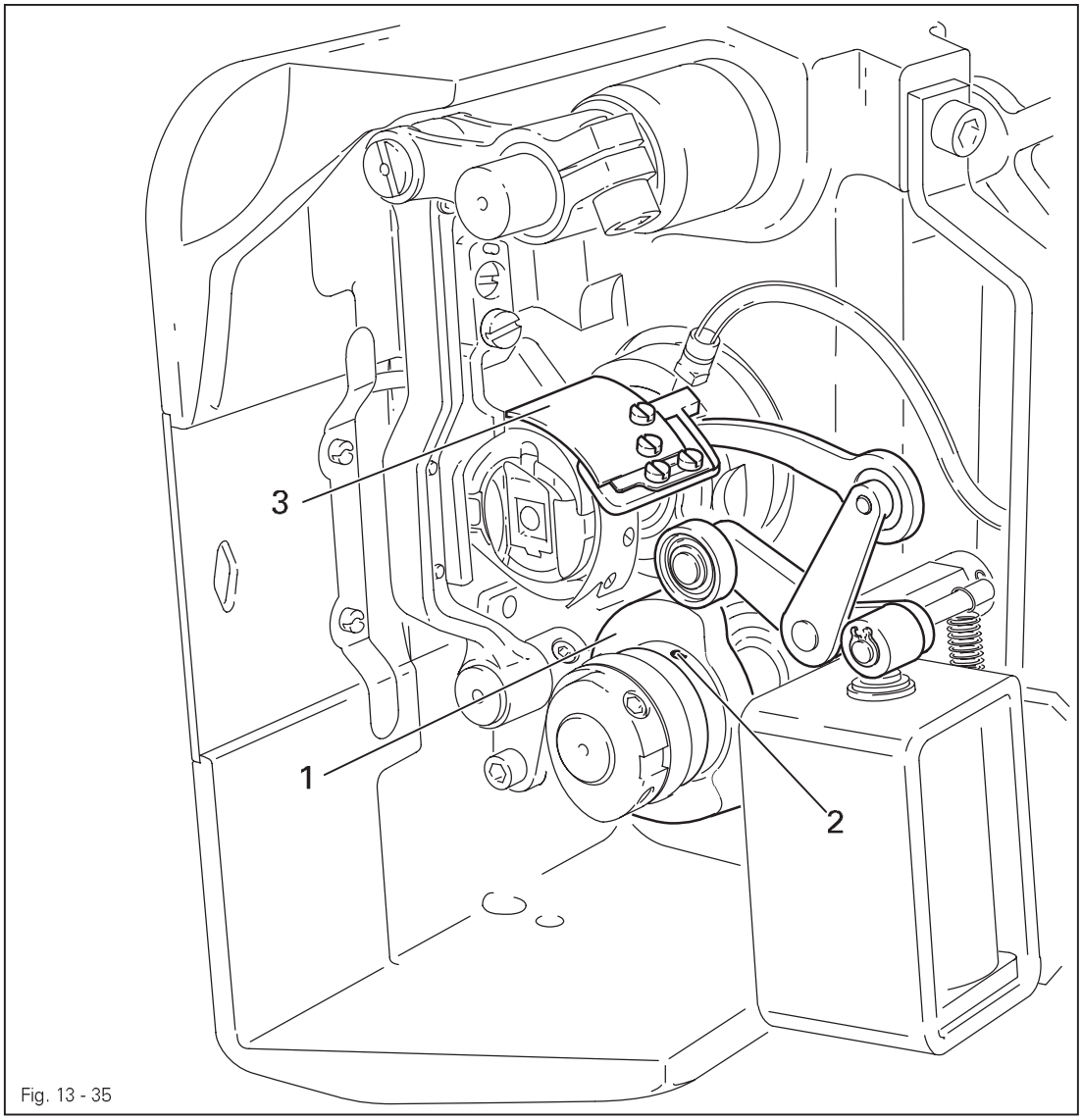
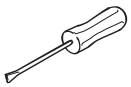


Fig. 13 - 35



- Adjust control cam **1** (screws **2**) according to the **requirement.**

13.08 Adjusting the automatic presser foot lift -910/06

Requirement
When the automatic presser foot lift is operated, the clearance between the presser foot and the needle plate must be **9 mm** for a small needle bar stroke and **13 mm** for a large needle bar stroke.

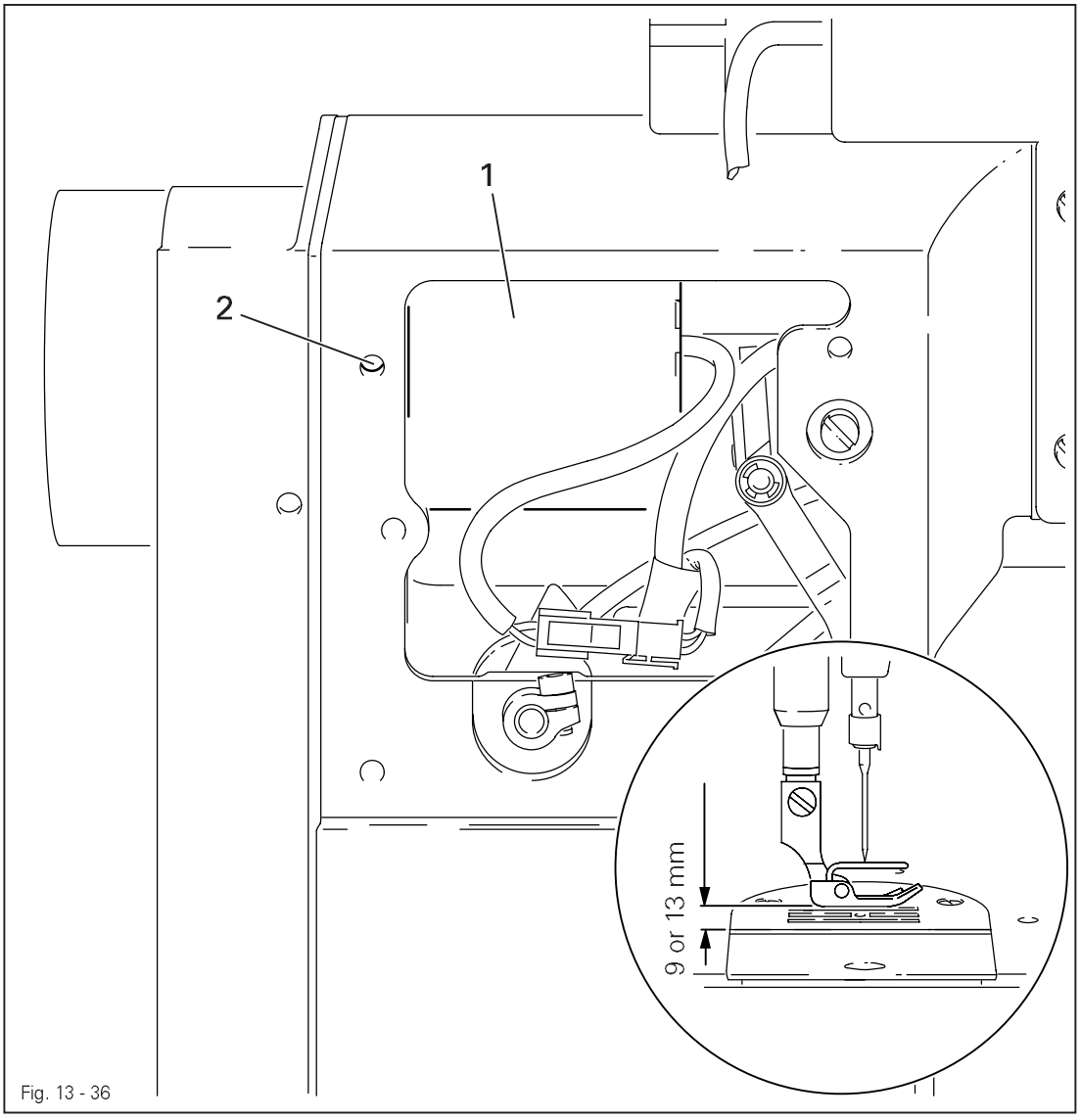


Fig. 13 - 36

- Move magnet **1** (screw **2**) according to the **requirement.**

13.09 Adjusting the back-tacking mechanism –911/37

Requirement
When the longest stitch length is set, the reverse-feed control switch **3** operated and the plunger extended, lever **1** should not touch the bed-plate..

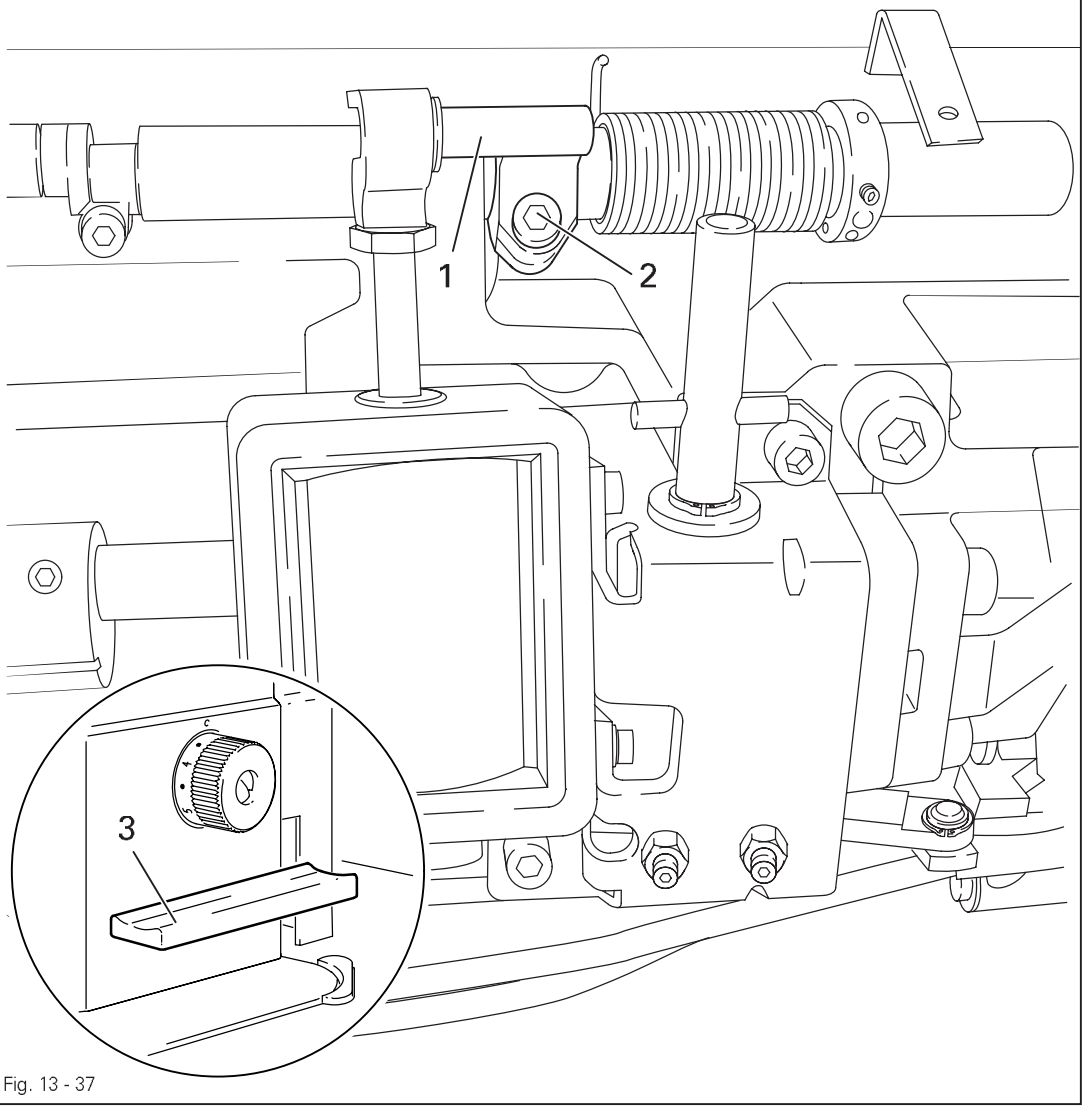


Fig. 13 - 37

- Adjust lever **1** (screw **2**) according to the **requirement.**

13.10 Parameter settings

(only on machines with Quick-EcoDrive and control unit P40ED or Quick-PicoDrive and control unit P40PD)

- The selection of the user level and the alteration of parameters is described in the separate instruction manual for the drive unit.

13.10.01 Parameter list

Group	Parameter	Description	User lever	Setting range	Set value P40 ED	Set value P40 PD
1	105	Speed for start backtackl	B, C	300 - 2000	1200	1200
	110	Speed for end backtack	B, C	300 - 2000	1200	1200
6	606	Speed min	B, C	30 - 300	180	180
	607	Speed max.	B, C	300 - 6000	▲	▲
6	609	Cutting speed 1	B, C	60 - 300	180	180
	660	Bobbin thread control 0 = off, 1 = thread monitor, 2 = reverse counter	A, B, C	0 - 2	0	-
	668	Thread wiper/thread blower 1 = on; 0 = off	B, C	0 - 1	0	-
7	700	Needle position 0 (needle reference position	B, C	0 -255	*	*
	702	Needle position 1 (needle lowered)	B, C	0 - 255	90	90
	703	Needle position 2 (take-up lever raised)	B, C	0 - 255	236	236
	705	Needle position 5 (end cutting signal 1)	B, C	0 - 255	200	200
	706	Needle position 5 (start cutting signal 2)	B, C	0 - 255	136	136
	707	Needle position 9 (start thread tension release/start thread catcher)	B, C	0 - 255	164	164
	760	Multiplier for the fixed value (200) stitch count	A,B, C	0 - 250	5	-
	797	Hardwaretest (OFF / ON),	B, C		OFF	OFF

▲ See Chapter 3 Specifications

* Adjustment see Chapter **8.05 Basic position of the machine drive unit.**

Group	Parameter	Description	User lever	Setting range	Set value P40 ED	Set value P40 PD
7	799	Selected machine class	C	1 - 3	1	2
8	800	Rotating direction of the motor	C	0 - 1	0	0
	802	Main drive reduction ratio 0 = 1:1 1 = variable	C	0 - 1	-	0
9	985	Switch on angle for thread trapper	B, C	0 -255	67	67
	986	Switch off angle for thread trapper	B, C	0 -255	206	206
	989	Thread trapper at beginning of seam 1 = yes, 0 = no	B, C	0 - 2	0	0

Further parameters and the description for an internet update of the machine software and reset /cold start of the machine can be found in the instruction manual for the control panel.

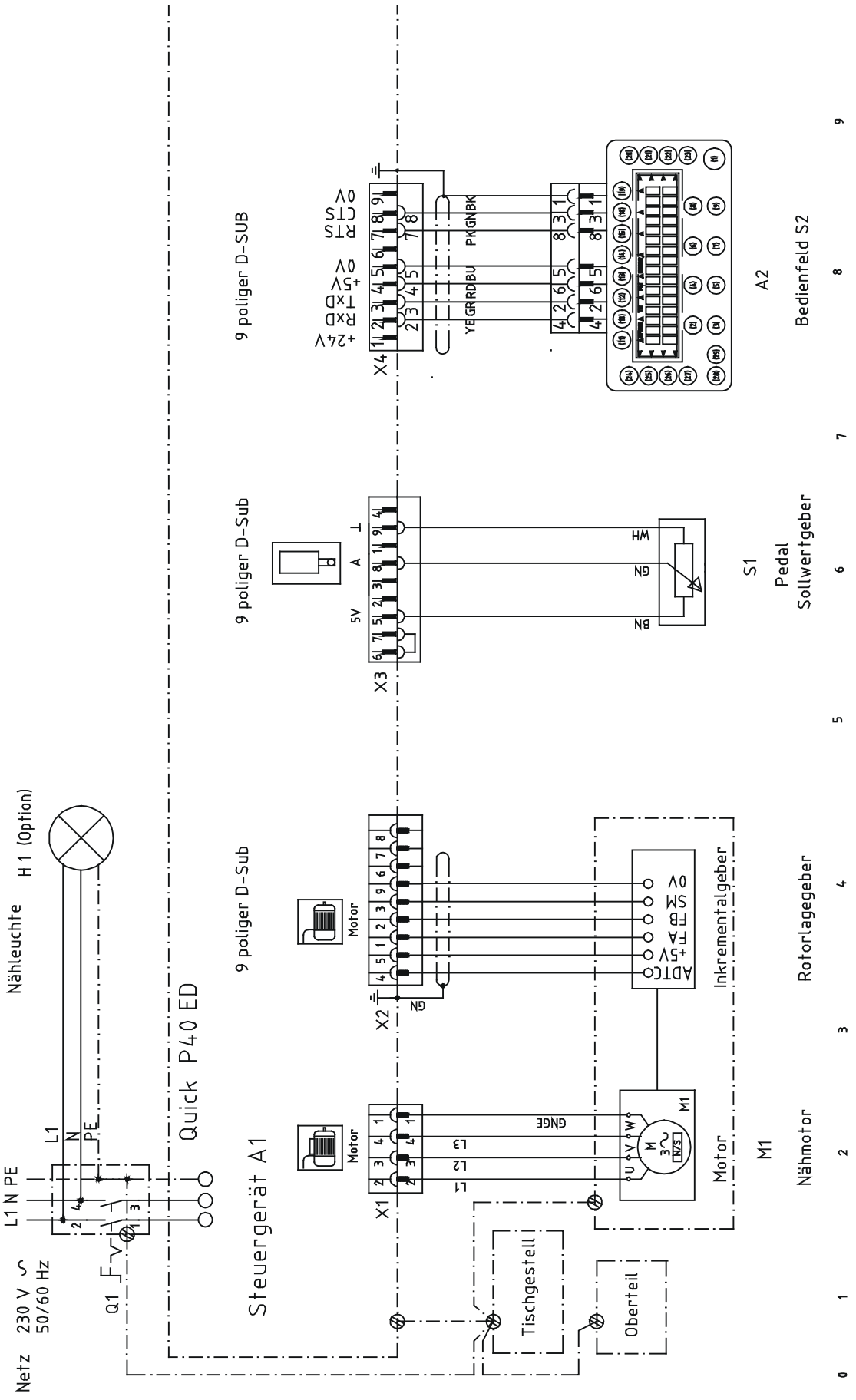
14 Circuit diagrams

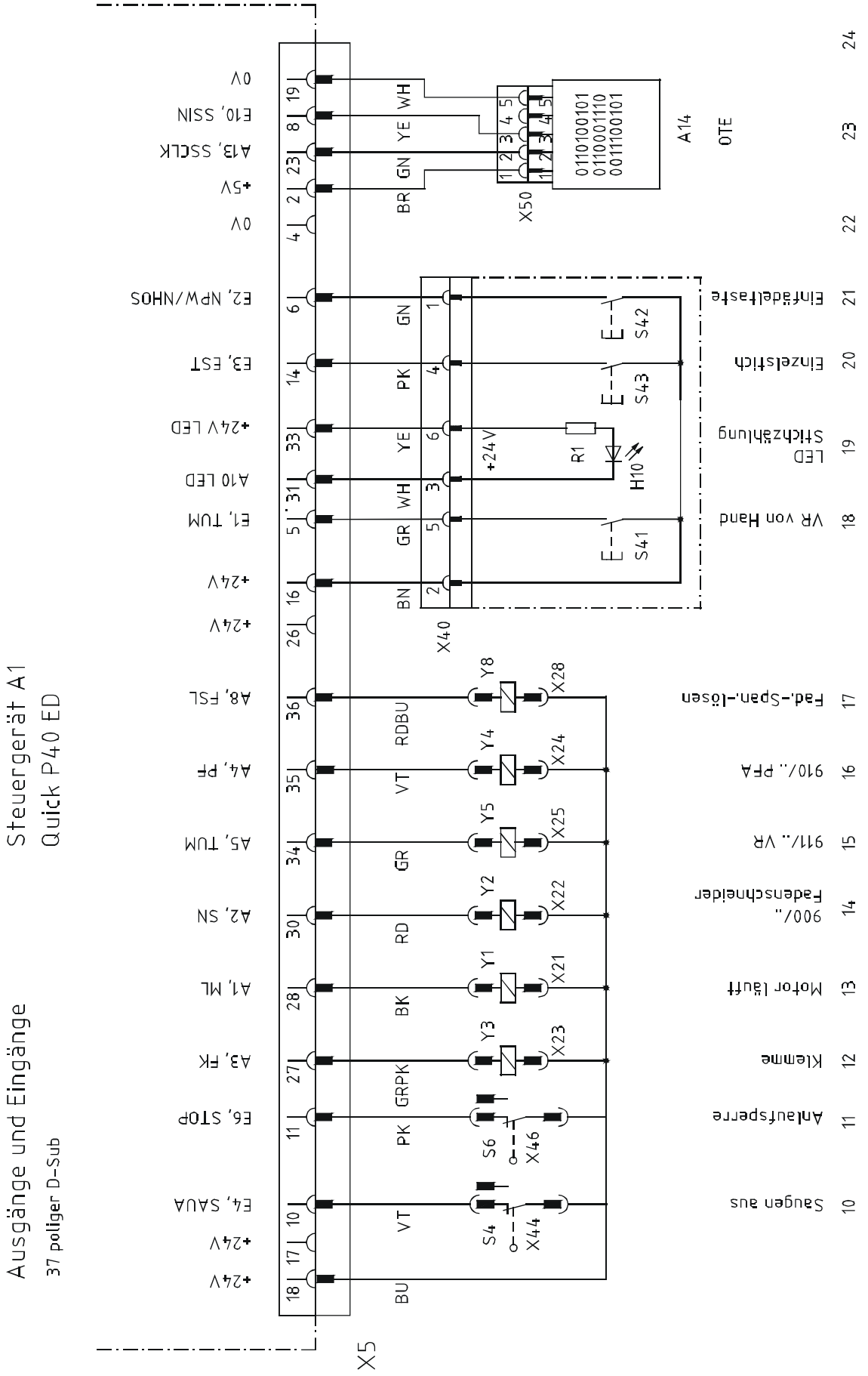
14.01 Reference list for the Circuit diagrams 91-191 516-95 and 91-191 521-95

Control package		
	P40 ED	P40 PD
	91-191 516-95	91-191 521-95
A1	Control unit Quick P40ED	Control unit Quick P40PD
A2	S2 control panel	PicoTop control panel
A14	Sewing head recognition	-
H1	Sewing lamp	-
H10	LED reverse stitch counting	-
HQ1	-	Control lamp main switch
M1	Sewing motor with incremental transmitter	
M10	Knife motor	-
PD3	External synchronizer PD3 (sub-cl. -712/..)	-
Q1	Main switch	
S1	Pedal (speed control unit)	
S6	Start inhibitor switch	
S10	Knife motor key	-
S41	Manual backtacking key	
S42	Needle position change / threading key	
S43	Single stitch key	
S44	Suction off	-
X0	RS 232 interface (PC) plug	-
X1	Sewing motor plug	
X2	Incremental transmitter plug	
X3	Pedal (speed control unit) plug	
X4	S2 control panel plug	Pico to control panel/RS232 (PC) plug
X5	Outputs/inputs plug	
X6	Bobbin thread monitor plug (optional)	-
X7	Light barrier plug (optional	Synchronizer PD3 plug (optional)
X8	-	Light barrier plug (optional)
X21	Motor running	-
X22	Thread trimmer (-900/..) plug	
X23	Thread clamp plug	
X24	Automatic presser foot lift (-910/..) plug	
X25	Backtacking device (-911/..) plug	
X28	Thread tension release plug	
X40	Keyboard plug	
X44	Suction off plug	-
X46	Start inhibitor plug	
X50	Sewing head recognition plug	-

Control package		
	P40 ED	P40 PD
	91-191 516-95	91-191 521-95
Y1	Motor running	-
Y2	Thread trimmer (-900/..)	
Y3	Thread clamp	
Y4	Automatic presser foot lift (-910/..)	
Y5	Backtacking device (-911/..)	
Y8	Thread tension release	

14.02 Circuit diagrams 91-191 516-95




Steuergerät A1
Quick P40 ED
Ausgänge und Eingänge
37 poliger D-Sub
X5
0V
E10, SSIN
A13, SSCLK
+5V
0V
E2, NPW/NHOS
E3, EST
+24V LED
A10 LED
E1, TUM
+24V
+24V
A8, FSL
A4, PF
A5, TUM
A2, SN
A1, ML
A3, FK
E6, STOP
E4, SAUA
+24V
+24V
BU
VT
PK
GRPK
BK
RD
GR
VT
RDBU
BN
GR
WH
YE
PK
GN
BR
GN
YE
WH
X40
X50
A14
OTE
0110100101
0110001110
0011100101
S41
S42
S43
R1
H10
+24V
S4
S6
X44
X46
Y1
Y2
Y3
Y4
Y5
Y8
X21
X22
X23
X24
X25
X28
Saugen aus
Anlaufsperre
Klemme
Motor läuft
900/.. Fadenschneider
911/.. VR
910/.. PFA
Fad.-Span.-Ösen
VR von Hand
LED Stichzählung
Einzelstich
Einfädeltaste
10
11
12
13
14
15
16
17
18
19
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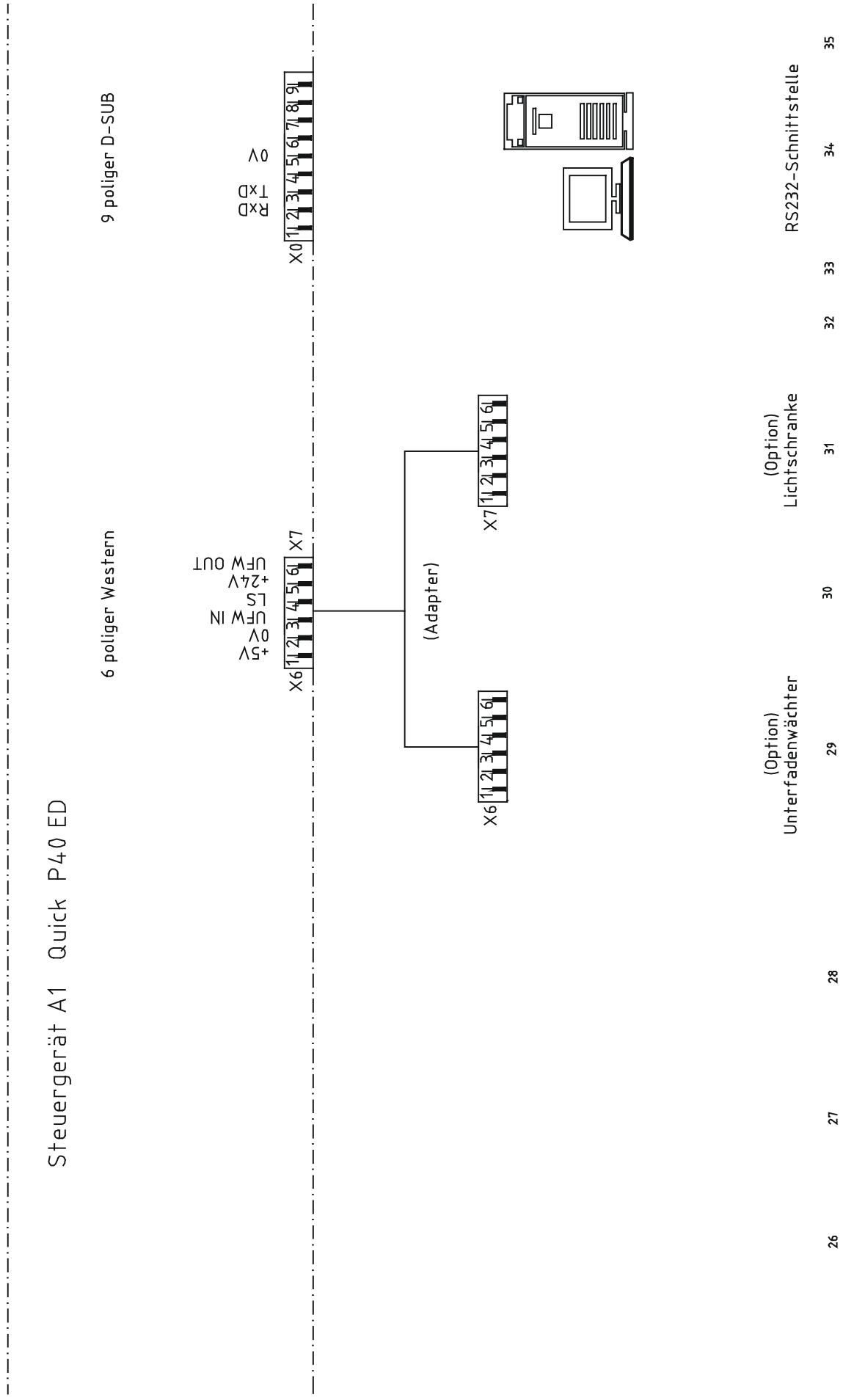
21
22
23
24


Steuergerät A1 Quick P40 ED
9 poliger D-SUB
X0
RxD
TxD
0V
6 poliger Western
X6
+5V
0V
UFW IN
LS
+24V
UFW OUT
X7
(Adapter)
X7
X6
(Option)
Lichtschranke
(Option)
Unterfadenwächter
RS232-Schnittstelle
26
27
28
29
30
31
32
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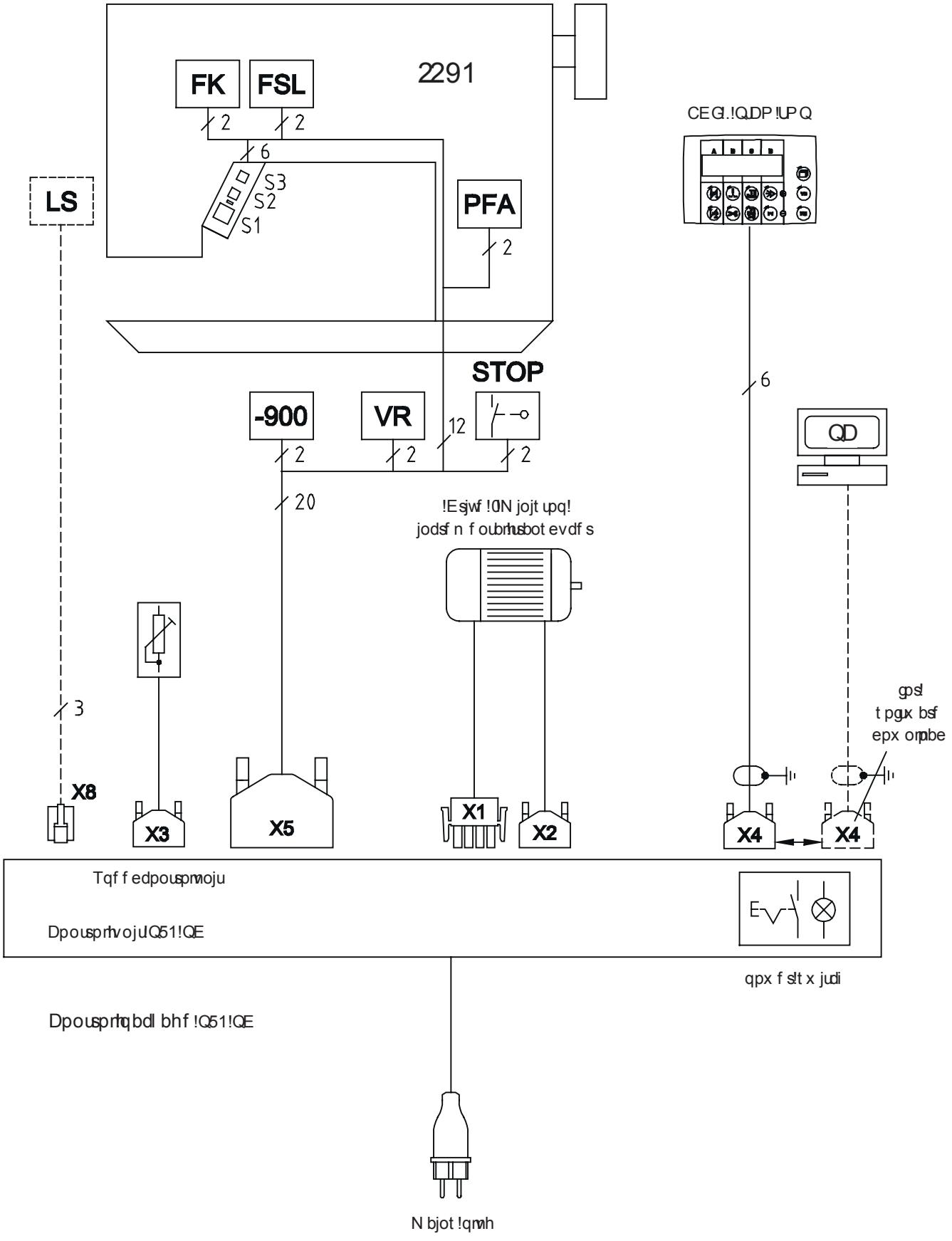
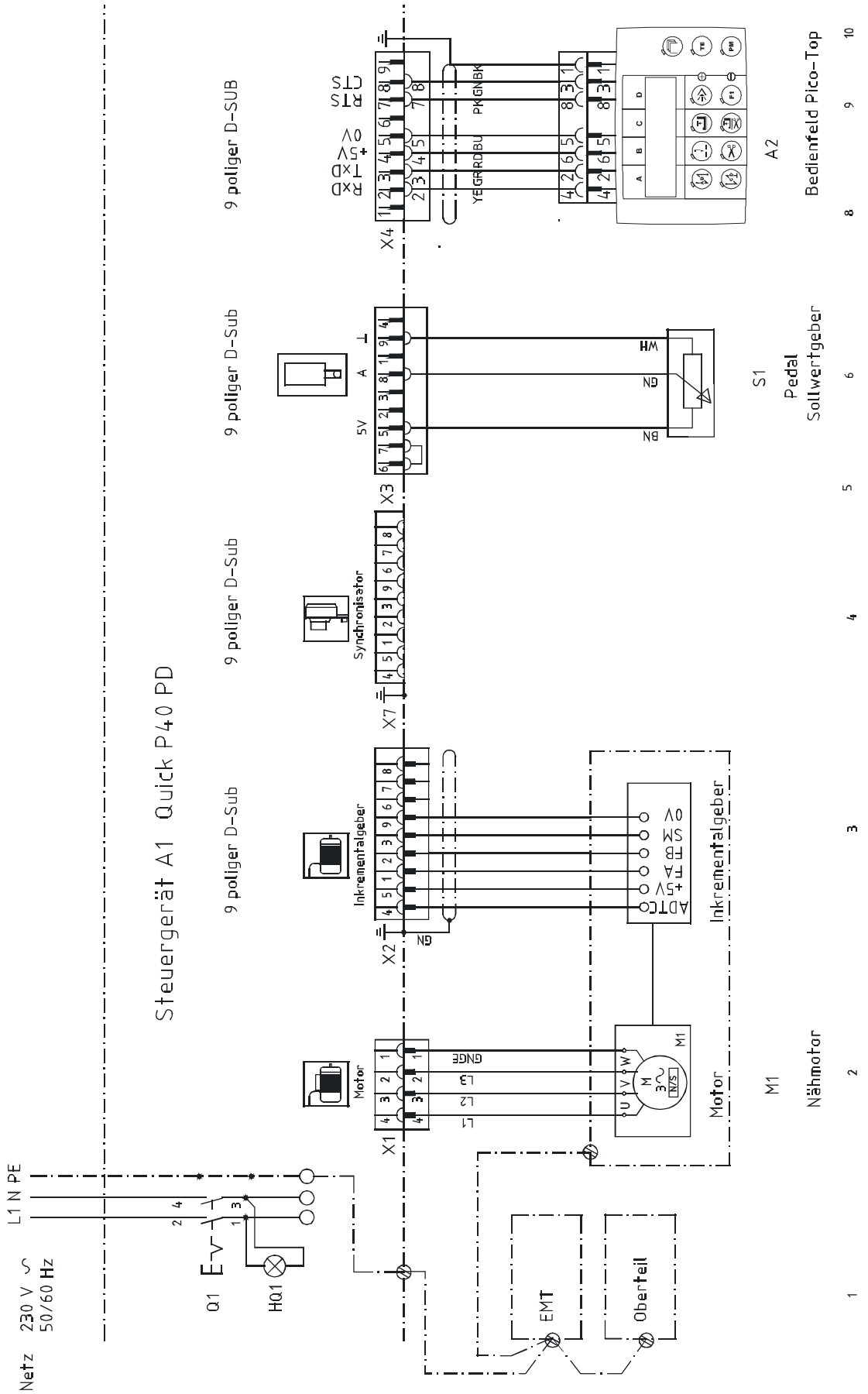
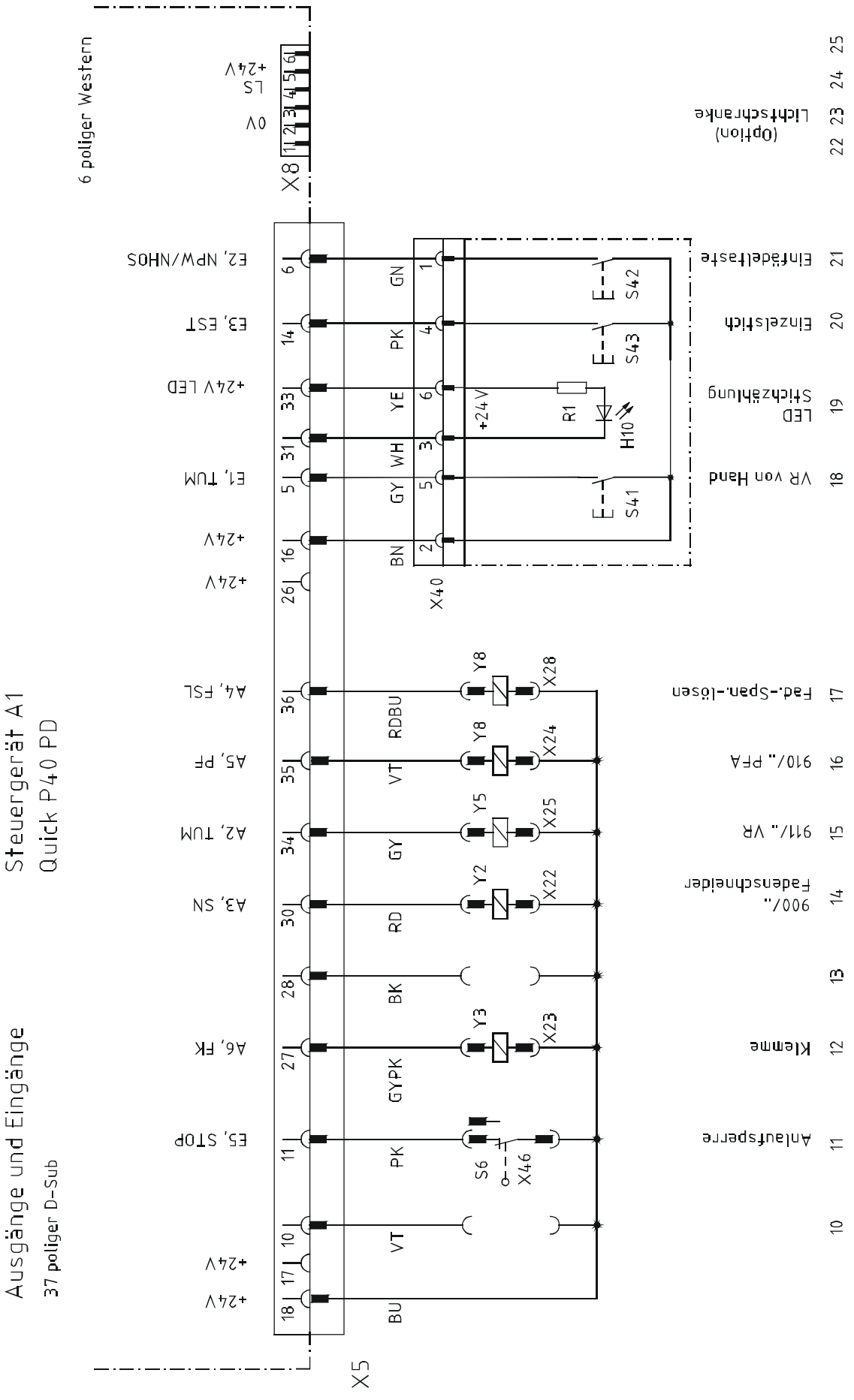
35

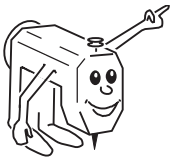
25/14 Cnpdl !ejbhsbn !QGBGGI2291!x ju !dpouspmvoju!Q51!QE!



14.04 Circuit diagrams 91-191 521-95




Steuergerät A1
Quick P40 PD
Ausgänge und Eingänge
37 poliger D-Sub
X5
6 poliger Western
X8
0V
LS
+24V
Lichtschranke
(Option)
Einfädeltaste
Einzelstich
LED
Stichzählung
VR von Hand
Fad.-Span.-lösen
910/.. PFA
911/.. VR
900/..
Fadenschneider
Klemme
Anlaufsperre
E2, NPW/NHOS
E3, EST
+24V LED
E1, TUM
+24V
+24V
A4, FSL
A5, PF
A2, TUM
A3, SN
A6, FK
E5, STOP
+24V
+24V
BU
VT
PK
GYPK
BK
RD
GY
VT
RDBU
BN
GY
WH
YE
PK
GN
+24V
R1
H10
S41
S42
S43
S6
X46
Y8
Y8
Y5
Y2
Y3
X28
X24
X25
X22
X23
X40



Notes

PFAFF

PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
E-Mail: info@pfaff-industrial.com

PFAFF

-948/51

Supplement to the instruction manual and parts list for the series 1050, 1180, 5483

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PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Editing/illustrations
HAAS-Publikationen GmbH
D-53840 Troisdorf

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1 Proper use

With the **puller** the workpiece is fed continously, which makes it possible to sew to a great extent without shifting and puckering. The puller's linear motor enables an individual clearance space between the needle plate and the puller roller.
All adjustments, such as e.g. puller feed stroke, puller roller clearance etc. are carried out by altering the parameter values, see **Chapter 2.03.03 Selecting and altering parameters**.

Any use of these machines which is not approved by the manufacturer shall be considered as improper use! The manufacturer shall not be liable for any damage arising out of improper use! Proper use shall also be considered to include compliance with the operation, adjustment, service and repair measures specified by the manufacturer!

1.01 Using standard presser feet

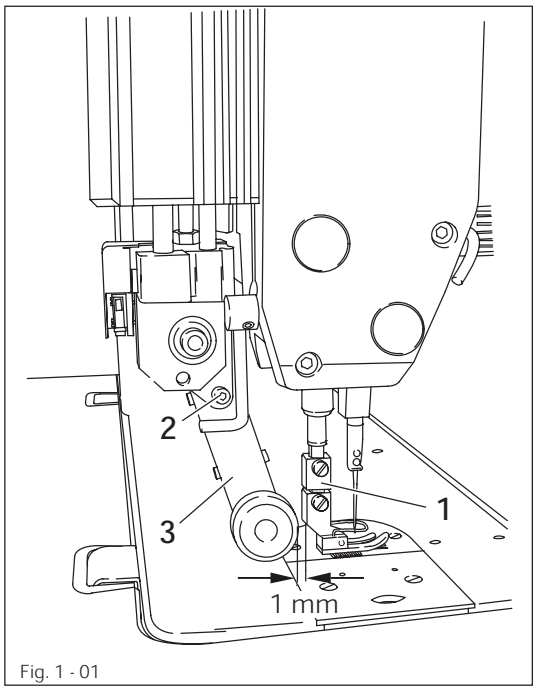


Fig. 1 - 01

- With the adapter **1** which belongs to the accessories, standard presser feed can also be used.
- Mount adapter **1** as shown in **Fig. 1-01**.
- Loosen screw **2** and push puller arm **3** back.
- Screw the presser foot onto adapter **1**.
- Adjust puller arm **3** so that there is a clearance of approx. **1 mm** between the puller roller and the presser foot.
- Tighten screw **2**.

2 Controls

2.01 Puller functions

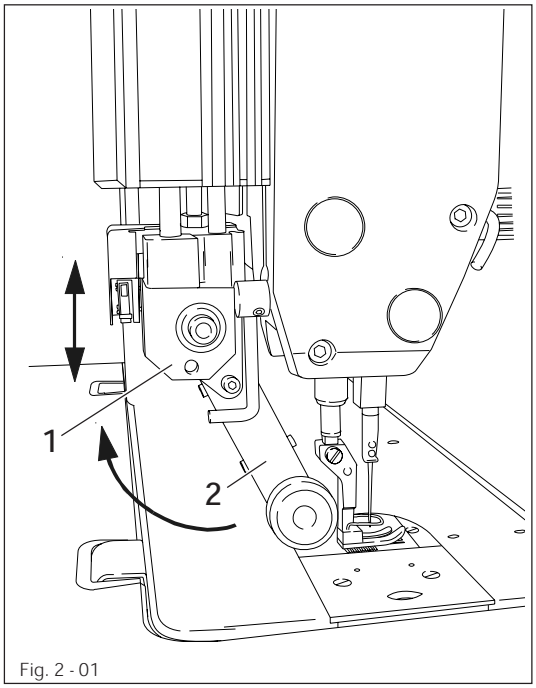


Fig. 2 - 01

Engaging/disengaging the puller

- Raise the puller drive unit **1** until it locks into place and swing puller arm **2** back as far as possible. To engage the puller, follow the instructions in the reverse order.

Switching the puller on/off

- The puller is automatically switched on or off when the puller unit is engaged or disengaged.

Setting the puller feed motion

- The feed motion of the puller is set by means of parameters (see **Chap. 1.06 Parameter settings** and the Motor Instruction Manual)

2.02 Lateral alignment of the puller

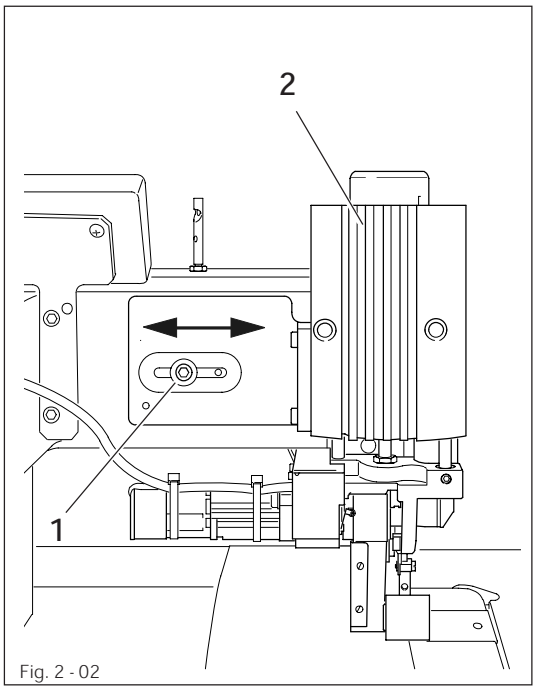
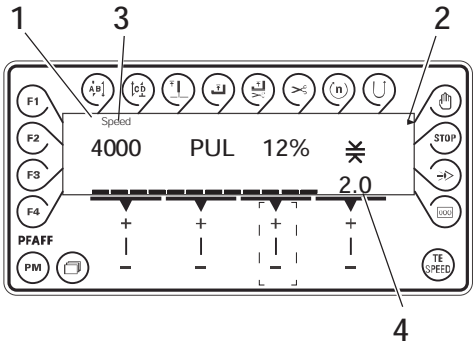


Fig. 2 - 02

- Loosen screw **1**.
- Align puller **2** with the material ply.
- Tighten screw **1**.

2.02 Control panel



The control panel consists of display **1** and the function keys described below. The display **1** consists of a two-line alpha-numerical LCD display with 16 symbols per line. The texts **3** show the respective status of the function keys and the operating status of the machine. The control panels switches on all LCD-segments and the horn automatically for a short time during the power-on phase, after which the lettering PFAFF appears on the display, until the higher-ranking control unit sends commands to the control panel.

2.02.01 Screen displays

- Activated functions are displayed with a triangular marking **2** below or next to the respective function key.
- In the sewing mode all relevant sewing data is displayed and these can be changed directly, depending on the status of the machine, see also **Chapter 5 Sewing**.
- During the parameter input the selected parameter number with the corresponding value is displayed, see **Chapter 2.02.03 Selecting/changing parameters**.

2.02.02 Function keys

The function keys described below are used basically to switch machine functions on and off.

If a corresponding value has to be set for the activated function, this is carried out with the corresponding **+/- key.** By pressing and holding the corresponding **+/- key**, the appropriate numerical value **4** is changed slowly to begin with. If the corresponding **+/- key** is held down longer, the values change more quickly.

Start backtacks

If this key is pressed, the backtacks at the beginning of the seam (start backtacks) are switched on or off. The number of forward stitches (A) or reverse stitches (B) for the start backtacks can be changed by pressing the **+/- key** underneath. To convert from double backtack to single backtack set the corresponding number of stitches at zero.

End backtacks

- If this key is pressed, the backtacks at the end of the seam (end backtacks) are switched on or off. The number of reverse stitches (C) or forward stitches (D) can be changed by pressing the **+/- key** underneath. To convert from double backtack to single backtack set the corresponding number of stitches at zero.

Needle position

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the needle positions at t.d.c. after sewing stops.

Foot position after stop

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the presser foot is raised after sewing stops.

Foot position after trimming

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the presser foot is raised after thread trimming.

Thread trimmer

- If this key is pressed the thread trimming function is switched on or off.

Speed

- If this key is pressed the corresponding function is switched on or off. In the seam program the speed is not dependent on the pedal. When the function is switched on, the speed cannot be adjusted by pedal. Sewing can only be carried out at the set maximum speed.
- If the function is switched off, the speed up to maximum speed is adjusted by the pedal.

Reverse sewing

- If this key is pressed the reverse sewing function is switched on or off.

Manual seam

- If this key is pressed the machine switches to manual sewing. When the function is switched on, the move to the next seam section is not carried out by stitch counting or sensor, but manually with the use of the pedal.

Stop

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the machine stops automatically at the end of a seam section.

Sensor

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the machine stops when the sensor recognises the edge of the material.

Stitch counting

- If this key is pressed the corresponding function is switched on or off. The value for the compensating stitches can be changed immediately with the corresponding **+/- key**. When the function is switched on, the machine moves to the next seam section after sewing the number of stitches entered.

TE/Speed

- In the programmed sewing mode, the number of stitches is entered by stitching them off.
- If this key is pressed once, the machine changes to parameter input.
- If this key is pressed twice (within 5 seconds) the machine changes to stitch input.

Scrolling

- If this key is pressed in the programmed sewing mode, the machine scrolls through the input menus on the display.

PM

- If this key is pressed the programmed sewing function is switched on or off. When the function is switched on, the letters "PM" appear on the display of the control panel. The parameters related to the program are shown in the alpha-numerical part of the display.

F1

No function assigned

F2

No function assigned

F3

No function assigned

F4

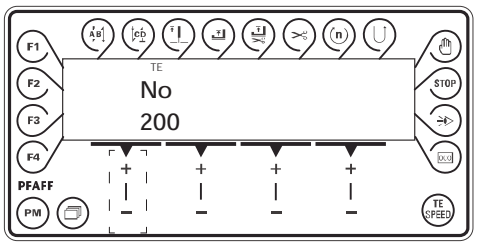
No function assigned

2.02.03 Selecting and altering parameters

- Switch on the machine.

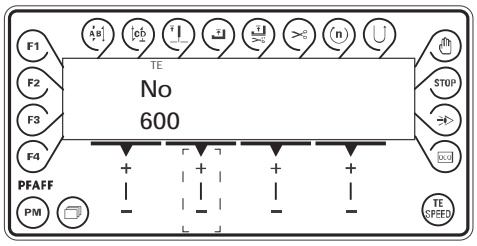
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



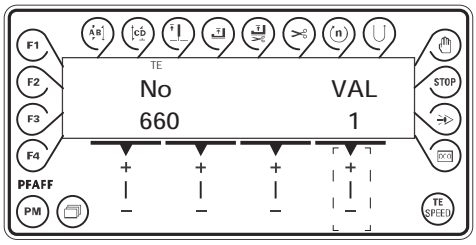
No

- By pressing the corresponding **+/- key** select the desired parameter group, e.g. "600".



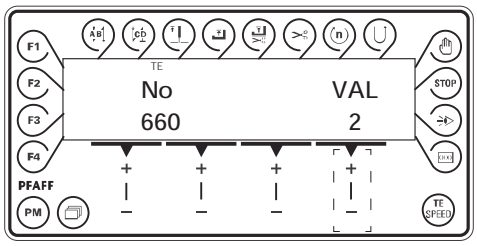
No

- By pressing the corresponding **+/- key** select the desired parameter, e.g. "660" for the bobbin thread monitoring function.



VAL

- By pressing the corresponding **+/- key** set the desired value for the parameter selected, e.g. "2" for the "bobbin rest thread counter on" function.



TE SPEED

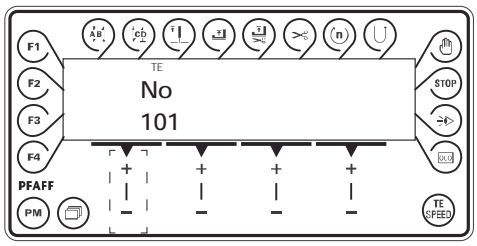
- Press the **TE/Speed** key to take over the value and change to the sewing mode.

2.02.04 Selecting the user level

- Switch on the machine.

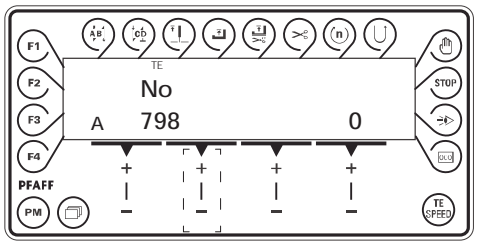
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



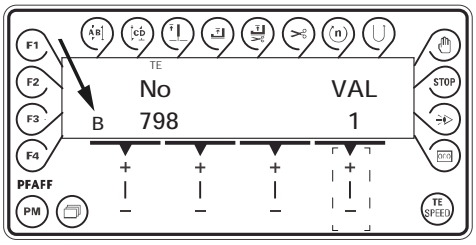
No

- By pressing the corresponding **+/- key** select the parameter group "700".



No

- By pressing the corresponding **+/- key** select the parameter "798".



VAL

- By pressing the corresponding **+/- key** select the desired user level:
  "0" = operator level **A**
  "1" = technician level **B**
  "11" = service level **C**

The respective level is displayed on the screen. (see arrow)

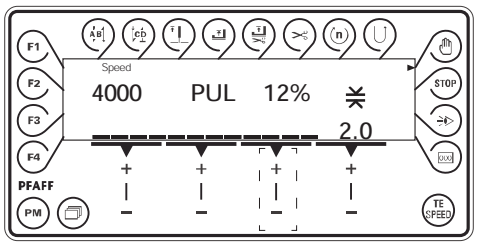
TE SPEED

- Press the **TE/Speed** key to take over the value and change to the sewing mode.

3 Commissioning

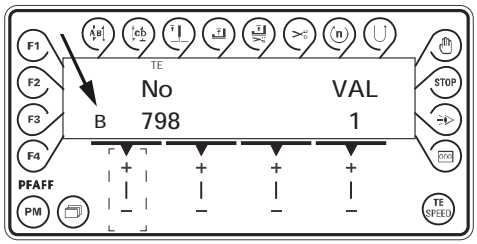
3.01 Basic position of the machine drive

- Switch on the machine.



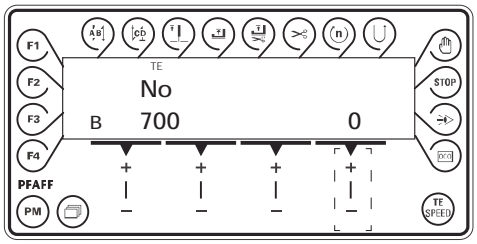
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.
- Select the technician level **B** (value "1") with parameter "798", see **Chapter 2.03.04 Selecting the user level.**



No

- By pressing the corresponding **+/- key** select the parameter group "700".

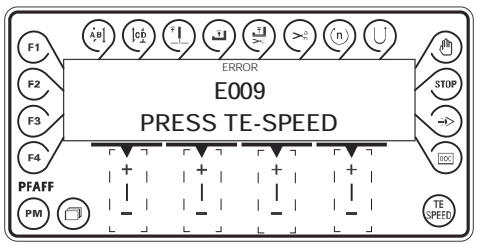


- Sew a stitch by operating the pedal.
- Turn the balance wheel in the direction of sewing until the needle point is level with the top edge of the needle plate.

TE SPEED

- Press the **TE/Speed** key to take over the setting and to conclude the input.

3.02 Testing the function of the start inhibitor



- Switch the machine on at the main switch and tilt back the sewing head.
  The error message "E009" must appear on the control panel.

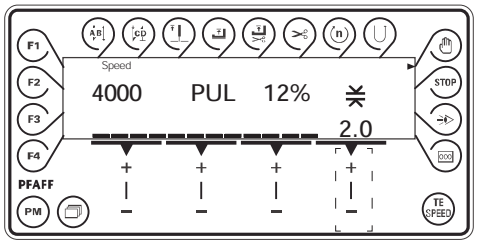
- If the message does not appear, check the setting of the safety switch.

- Set the sewing head upright again and acknowledge the error message by pressing the **TE/Speed** key. The machine is ready for operation again.

4 Setting up

4.01 Entering the puller feed stroke (stitch length)

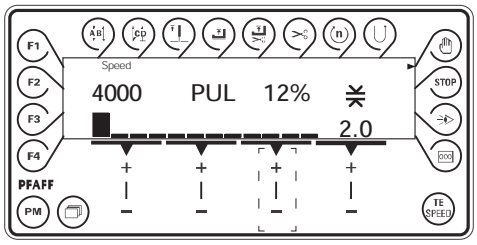
- Switch on the machine.



- Enter the feed stroke by pressing the corresponding **+/- key**.

The puller feed stroke setting must match the stitch length setting of the basic machine!

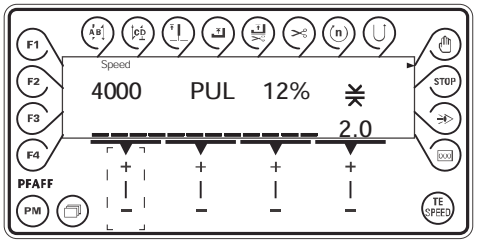
4.02 Setting the puller pressure



- Switch on the machine.
- Set the desired puller pressure by pressing the corresponding **+/- key**.
  The current puller pressure can be read on the display as a bar graph and as a value (in %).

4.03 Entering the maximum speed

- Switch on the machine.



- Enter the maximum speed by pressing the corresponding **+/- key**.

4.04 Entering the start and end backtacks

- Switch on the machine.

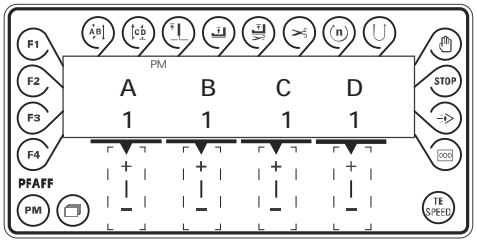
PM

- Select the manual sewing mode by pressing the **"PM"** key.

2 x TE SPEED

- Press the **TE/Speed** key twice to select the input menu for start and end backtacks.

In the programmed sewing mode it is possible to call up the input menu for start and end backtacks by pressing the **scroll** key, see **Chapter 5.02 Programmed sewing.**



A
- By pressing the corresponding **+/- key** select the desired value for the number of forward stitches (A) of the start backtack.

B
- By pressing the corresponding **+/- key** select the desired value for the number of reverse stitches (B) of the start backtack.

C
- By pressing the corresponding **+/- key** select the desired value for the number of reverse stitches (C) of the end backtack.

D
- By pressing the corresponding **+/- key** select the desired value for the number of forward stitches (D) of the end backtack.

TE SPEED

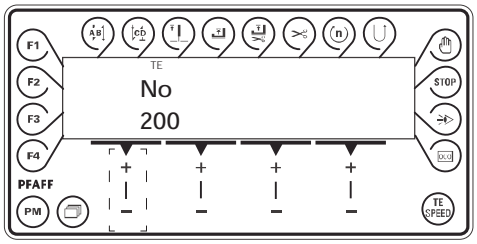
- Press the **TE/Speed** key to store the selected setting and to conclude the input.

4.05 Setting the stitch counting function for the bobbin thread control

- Switch on the machine.

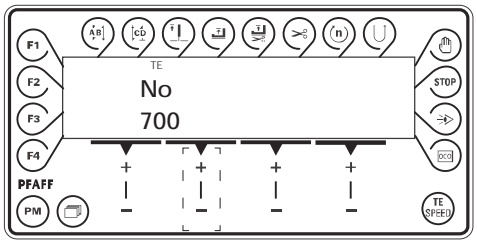
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



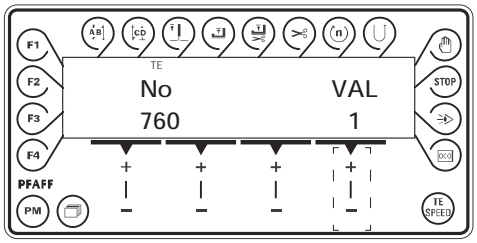
No

- By pressing the corresponding **+/- key** select the parameter group "700".



No

- By pressing the corresponding **+/- key** select the parameter "760".



VAL

- By pressing the corresponding **+/- key** set the number of remaining stitches, which can be sewn after recognition by the bobbin thread monitor. Among other things the setting depends on the thread size.

TE SPEED

- Press the **TE/Speed** key to take over the value and change to the sewing mode.

The remaining bobbin thread counter can only be used, when parameter "660" is set at the value "1" or "2".

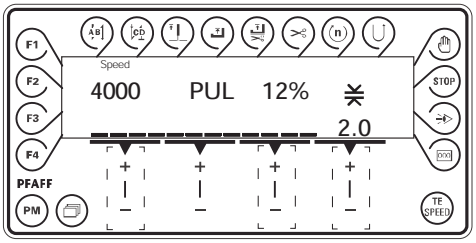
5 Sewing

In the sewing mode all relevant adjustments for the sewing operation are shown on the display and can be altered directly. Functions can be switched on and off by pressing the key.

In this mode a difference is made between **manual sewing** and **programmed sewing**. To change from manual to programmed sewing, press the **PM** key. In programmed sewing the text "**PM**" appears on the display.

5.01 Manual sewing

After the machine has been switched on, the maximum speed, the puller feed stroke and the puller pressure can be adjusted with the corresponding **+/- keys**.



Further functions in manual sewing, also see **Chapter 2.02.02Function keys:**


Start backtacks on/off


End backtacks on/off


Needle position raised on/off


Presser foot raised on/off


Presser foot raised at end of seam on/off


Thread trimming on/off


Sensor on/off

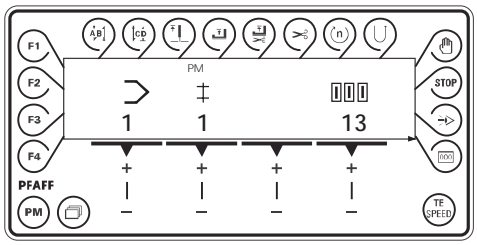
On the basic machine the stitch length is adjusted with the balance wheel. The stitch length for the puller is adjusted on the control panel

5.02 Programmed sewing

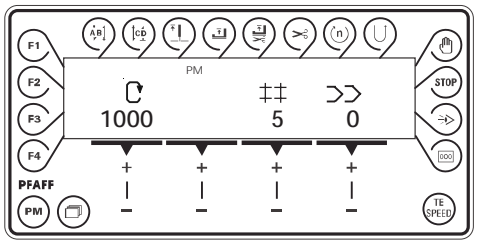
In the programmed sewing mode 99 programs, each with 9 seam sections and 999 stitches, can be programmed.
The fixed programs are used for the quick and easy production of seams with different numbers of stitches. The pedal setting „0" is used to switch to the next seam section.

PM

After the machine has been switched on and the programmed sewing mode has been selected with the **PM** key, the display appears for selecting the program number, seam section and number of stitches.



With the **scroll** key other menus can be selected for entering the values for start and end backtacks and the maximum speed in the corresponding seam section.

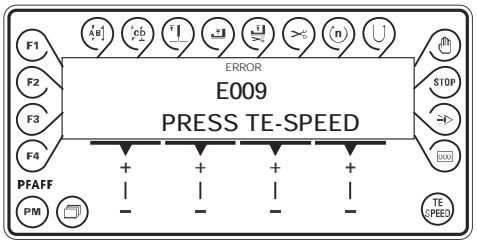


Further functions in programmed sewing, also see **Chapter 2.02.02 Function keys**:

- Start backtacks on/off
- End backtacks on/off
- Needle position raised on/off
- Presser foot raised on/off
- Presser foot raised after thread trimming on/off
- Thread trimming on/off
- Seam section speed on/off
- Reverse sewing direction on/off
- Manual sewing on/off
- Stop on/off
- Sensor on/off
- Stitch count on/off

5.03 Error messages

If a fault occurs, the text "ERROR" appears on the display, together with an error code and short instructions. An error message is caused by incorrect settings, faulty elements or seam programs as well as by overload conditions.



- Correct the error.

- Acknowledge error correction by pressing the **TE/Speed** key.

6 Parameter Settings

Group	Parameter	Description	Access level	Adjustment range	Standard value
2	252	Puller roller clearance for start backtack ca. 4 mm	A, B, C	0 – 100	30
	253	Puller starting time in intermittent sector (on PFAFF 1051 and 1181) (on PFAFF 1053 and 1183)	B, C, B, C		20 140
	254	Puller roller clearance after trimming ca. 7 mm	B,C	10 – 100	40
	261	Starting properties of the puller roller	B, C	20 – 80	60
	262	Puller roller feed stroke in intermittent operation	B, C	20 – 140	80
3	302	Holding power of puller roller when rising	B, C	50 – 150	100
4	445	No. of stitches before puller roller touches down after machine start	B, C	0 – 99	0
	499	Stitches for puller delay after knee switch	A, B, C	0 – 99	0
6	660	Bobbin thread monitoring 0 = off 1 = on 2 = bobbin rest thread counter on	A, B, C	0 – 2	1
7	760	No. of stitches to bobbin thread monitor	A, B, C	0 – 250	1

The standard values listed in the table are basic settings, which can be altered if necessary.
For more displays and information see the motor instruction manual.

7 Internet-Update der Maschinen-Software

The machine software can be updated with PFAFF flash programming. For this purpose the PFP boot program and the appropriate control software for the machine type must be installed on a PC. To transfer the data to the machine, the PC and the machine control unit must be connected with an appropriate null modem cable (part no. 91-291 998-91).

The PFP boot program and the control software of the machine type can be downloaded from the PFAFF-homepage using the following path:
www.pfaff-industrial.de/de/service/download/steuerungssoftware.html

To update the machine software carry out the following steps:

While the machine software is being updated, no setting up, maintenance or adjustment work may be carried out on the machine!

- Switch off the machine.
- Connect the PC (serial interface or appropriate USB-adapter) and the machine control unit (RS232).
- Switch on the PC and start the PFP boot program.
- Select the machine type.
- Press the „programming" button.
- An auxiliary program (Quickloader) is started.
- Switch on the machine within 60 seconds.
- The software update is carried out, the updating status is shown on the bar display.
- After the update has been completed, the message "**Software updated successfully completed**" appears.

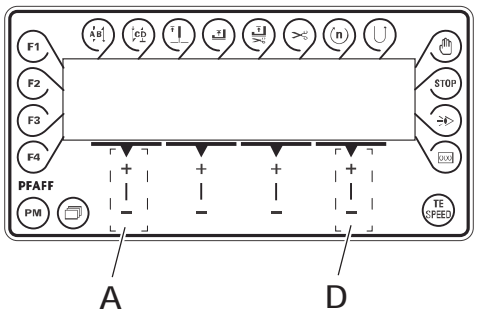
If this message does not appear, the entire procedure must be repeated!
The operational reliability of the machine is not restored until the programming has been carried out successfully and without errors.

- Switch off the machine, end the quickloader and PFP-boot program.
- End the connection between the PC and the machine control unit.
- Switch on the machine.
  A plausibility control is carried out and, if necessary, a cold start.

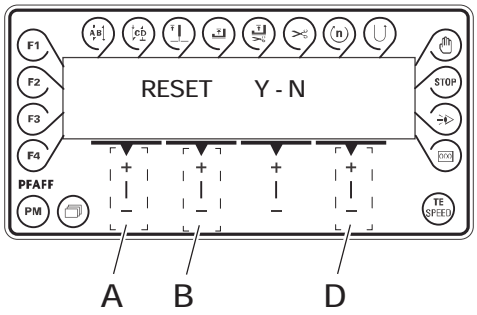
More information and assistance is at your disposal in the file „PFPHILFE.TXT", which can be called up from the PFP boot program by pressing the „help" button.

8 Reset / Cold start

After selecting the reset menu, by pressing the corresponding key it is possible to delete seam parameters, to delete seam programs or to carry out a cold start.



- Press and hold "+" on keys **A** and **D** and switch on the machine.



Resetting the seam parameters

- Press "+" on key **A**.
  All seam parameters are deleted, "MASTER-RESET" is displayed for a short time on the screen.

Resetting the seam programs

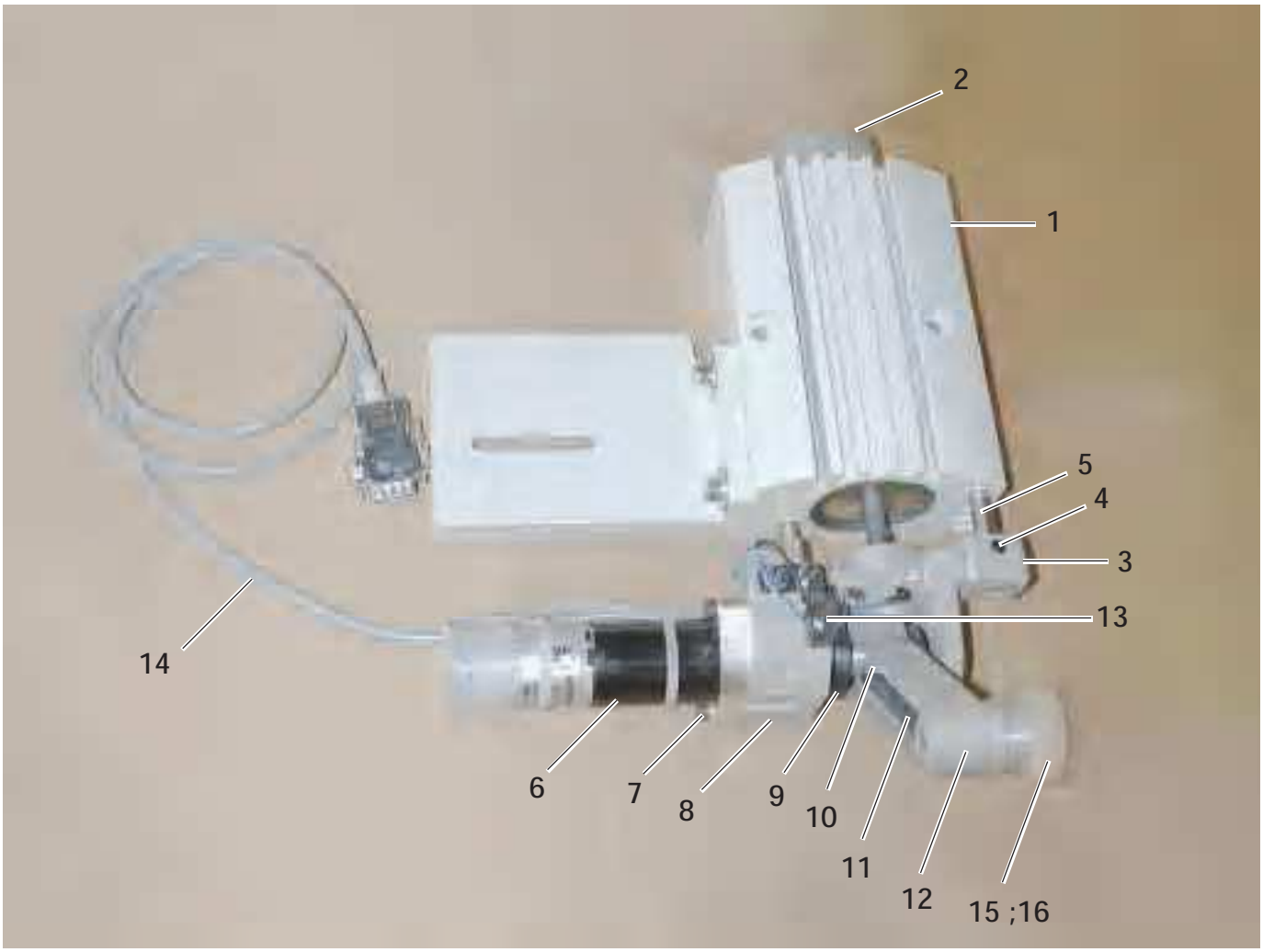
- Press "+" on key **B**.
  All seam programs are deleted, "MASTER-RESET" is displayed for a short time on the screen.

Cold start

- Press "+" on key **D**.
  The values of the machine control unit are set back to their basic values, except the value for the machine class. "COLD START" is displayed for a short time on the screen.

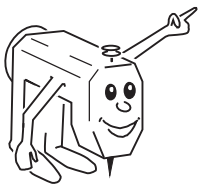
After a cold start, all programmed values are reset to the condition at the time of delivery.

9 Partslist



Item No.	Part No.
1 - 15	91-264 251-71/895
1	91-262 916-91
2	91-262 983-75/699
3 - 4	91-262 920-91
3	91-262 921-05
4	11-330 277-15 (2x)
5	91-262 919-05 (2x)
6	71-520 008-20
7	11-130 191-15 (2x)
8	91-262 914-05

Item No.	Part No.
9	91-262 860-92
10	91-262 865-92 (2x)
11	16-409 981-05
12	91-264 249-91
13	71-120 006-33
14	95-784 321-91
15	91-264 236-01 (10 mm wide)
16	91-264 170-01 (15 mm wide) 91-264 173-01 (20 mm wide) 91-264 166-01 (30 mm wide)



Notes

PFAFF

PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
E-Mail: info@pfaff-industrial.com

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PFAFF Industrie Maschinen AG

Postfach 3020

D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

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1 Proper use

With the **puller** the workpiece is fed continously, which makes it possible to sew to a great extent without shifting and puckering. The puller's linear motor enables an individual clearance space between the needle plate and the puller roller.
All adjustments, such as e.g. puller feed stroke, puller roller clearance etc. are carried out by altering the parameter values, see **Chapter 2.03.03 Selecting and altering parameters**.

Any use of these machines which is not approved by the manufacturer shall be considered as improper use! The manufacturer shall not be liable for any damage arising out of improper use! Proper use shall also be considered to include compliance with the operation, adjustment, service and repair measures specified by the manufacturer!

1.01 Using standard presser feet

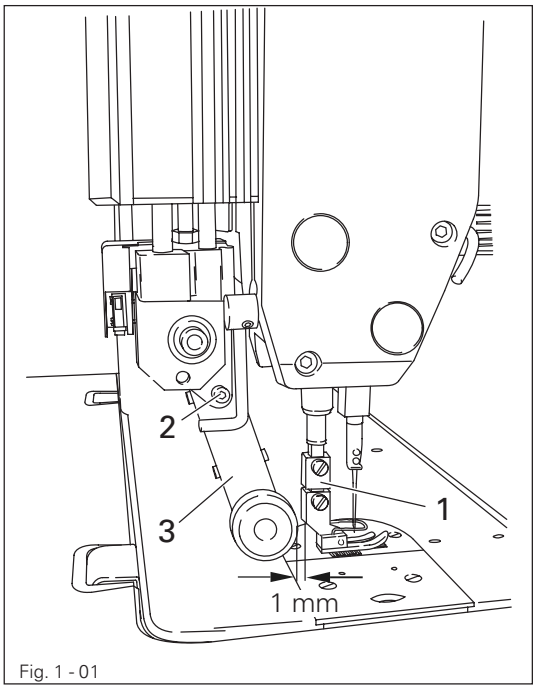


Fig. 1 - 01

- With the adapter **1** which belongs to the accessories, standard presser feed can also be used
  (Ordering number 91-154 790-22).
- Mount adapter **1** as shown in **Fig. 1-01**.
- Loosen screw **2** and push puller arm **3** back.
- Screw the presser foot onto adapter **1**.
- Adjust puller arm **3** so that there is a clearance of approx. **1 mm** between the puller roller and the presser foot.
- Tighten screw **2.**

When using the adapter, the height of the puller roller must be adjusted as described in **Chapter 2.02**.

2 Controls

2.01 Puller functions

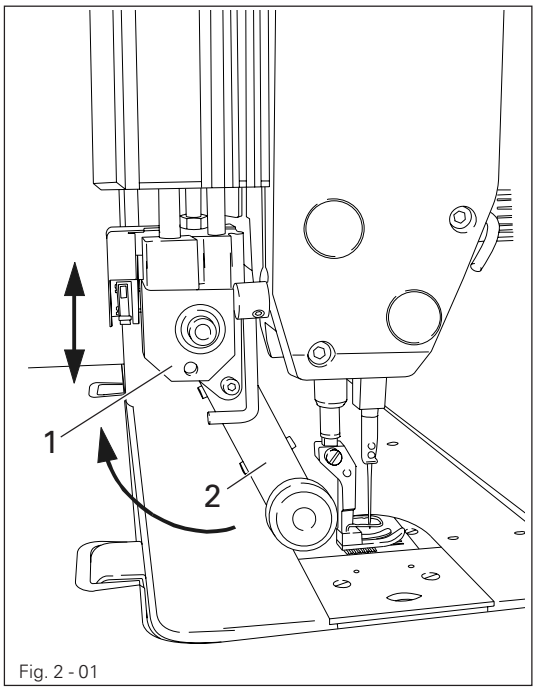


Fig. 2 - 01

Engaging/disengaging the puller

- Raise the puller drive unit **1** until it locks into place and swing puller arm **2** back as far as possible. To engage the puller, follow the instructions in the reverse order.

Switching the puller on/off

- The puller is automatically switched on or off when the puller unit is engaged or disengaged.

Setting the puller feed motion

- The feed motion of the puller is set by means of parameters (see **Chap. 1.06 Parameter settings** and the Motor Instruction Manual)

2.02 Aligning the puller

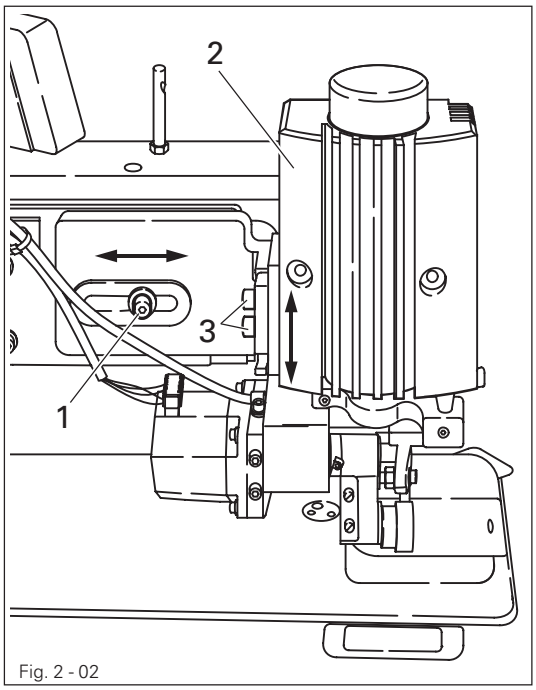


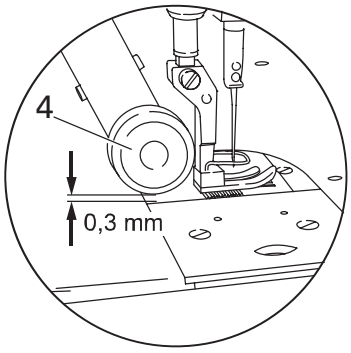
Fig. 2 - 02

Puller crosswise to sewing direction

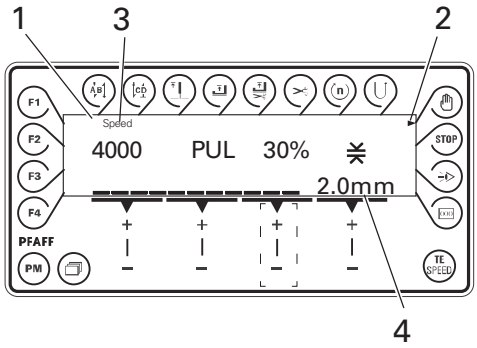
- Loosen screw **1**.
- Align puller **2** to the seam.
- Tighten screw **1**.

Height of the puller roller

- Loosen screw **3**
- Align puller **2**, so that there is a clearance of approx. **0.3 mm** between the puller roller **4** and the cloth plate.
- Tighten screw **3**.



2.03 Control panel



The control panel consists of display **1** and the function keys described below. Display **1** consists of a two-row, alpha-numerical display with 16 symbols per row. The texts **3** show the respective status of the function keys and the operating modes of the machine.
During the power-on phase the control panel automatically switches on all LCD segments and the horn. The number of the version of the installed software then appears on the display, until the higher-ranking control unit sends commands to the control panel.

2.03.01 Screen displays

- Activated functions are displayed with a triangular marking **2** below or next to the respective function key.
- In the sewing mode all relevant sewing data is displayed and these can be changed directly, depending on the status of the machine, see also **Chapter 5 Sewing**.
- During the parameter input the selected parameter number with the corresponding value is displayed, see **Chapter 2.02.03 Selecting/changing parameters**.

2.03.02 Function keys

The function keys described below are used basically to switch machine functions on and off.
If a corresponding value has to be set for the activated function, this is carried out with the corresponding **+/- key.** By pressing and holding the corresponding **+/- key**, the appropriate numerical value **4** is changed slowly to begin with. If the corresponding **+/- key** is held down longer, the values change more quickly.

Start backtacks
If this key is pressed, the backtacks at the beginning of the seam (start backtacks) are switched on or off. The number of forward stitches (A) or reverse stitches (B) for the start backtacks can be changed by pressing the **+/- key** underneath. To convert from double backtack to single backtack set the corresponding number of stitches at zero.

End backtacks

- If this key is pressed, the backtacks at the end of the seam (end backtacks) are switched on or off. The number of reverse stitches (C) or forward stitches (D) can be changed by pressing the +/- key underneath. To convert from double backtack to single backtack set the corresponding number of stitches at zero.

Needle position

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the needle positions at t.d.c. after sewing stops.

Foot position after stop

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the presser foot is raised after sewing stops.

Foot position after trimming

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the presser foot is raised after thread trimming.

Thread trimmer

- If this key is pressed the thread trimming function is switched on or off.

Speed (only in programmed sewing)

- If this key is pressed the corresponding function is switched on or off. In the seam program the speed is not dependent on the pedal. When the function is switched on, the speed cannot be adjusted by pedal. Sewing can only be carried out at the set maximum speed.
- If the function is switched off, the speed up to maximum speed is adjusted by the pedal.

Reverse sewing

- If this key is pressed the corresponding function is switched on or off. When the function is switched during programmed sewing, the corresponding seam section is sewn in reverse.

Manual seam (only in programmed sewing)

- If this key is pressed the machine switches to manual sewing. When the function is switched on, the move to the next seam section is not carried out by stitch counting or sensor, but manually with the use of the pedal (position "-2").

Stop

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the machine stops automatically at the end of a seam section.

Sensor

- In manual sewing the number of compensating stitches from the point where the photocell is light to the end of the seam can be set under parameter 111, and in programmed sewing directly.

Stitch counting

- If this key is pressed the corresponding function is switched on or off. When the function is switched on, the machine moves to the next seam section after sewing the number of stitches entered.

TE/Speed

- In the programmed sewing mode, the number of stitches is entered by stitching them off.
- If this key is pressed once, the machine changes to parameter input.
- If this key is pressed twice (within 5 seconds) the machine changes to stitch input.

Scrolling

- If this key is pressed in the programmed sewing mode, the machine scrolls through the input menus on the display.

PM

- If this key is pressed the programmed sewing function is switched on or off. When the function is switched on, the letters "PM" appear on the display of the control panel. The parameters related to the program are shown in the alpha-numerical part of the display.

F1

No function assigned

F2

No function assigned

F3

No function assigned

F4

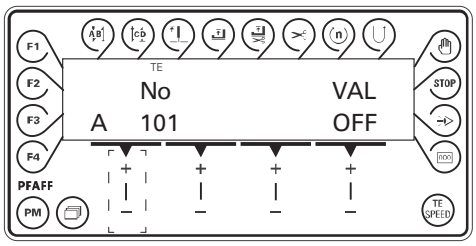
No function assigned

2.03.03 Selecting and altering parameters

- Switch on the machine.

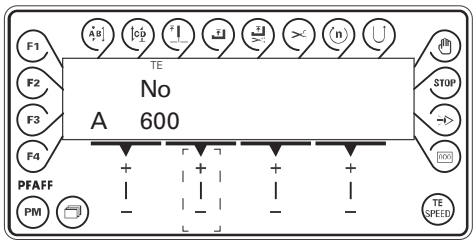
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



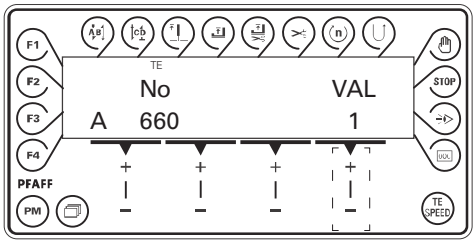
No

- By pressing the corresponding **+/- key** select the desired parameter group, e.g. "600".



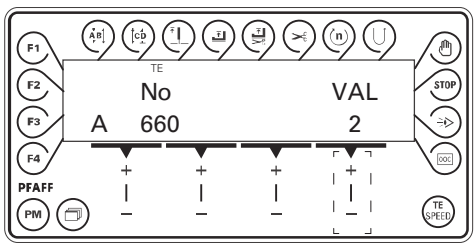
No

- By pressing the corresponding **+/- key** select the desired parameter, e.g. "660" for the bobbin thread monitoring function.



VAL

- By pressing the corresponding **+/- key** set the desired value for the parameter selected, e.g. "2" for the "bobbin rest thread counter on" function.



TE SPEED

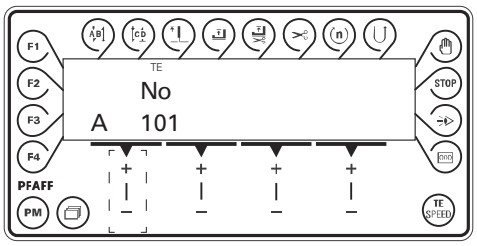
- Press the **TE/Speed** key to take over the value and change to the sewing mode.

2.03.04 Selecting the user level

- Switch on the machine.

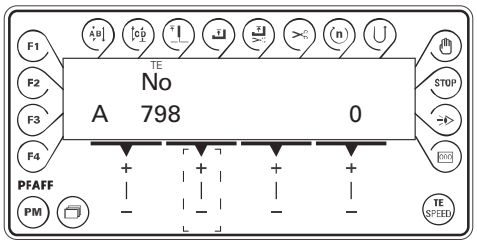
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



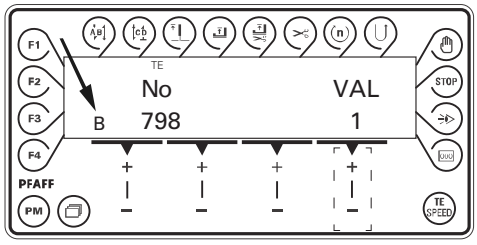
No

- By pressing the corresponding **+/- key** select the parameter group "700".



No

- By pressing the corresponding **+/- key** select the parameter "798".



VAL

- By pressing the corresponding **+/- key** select the desired user level:
  "0" = operator level **A**
  "1" = technician level **B**
  "11" = service level **C**

The respective level is displayed on the screen. (see arrow)

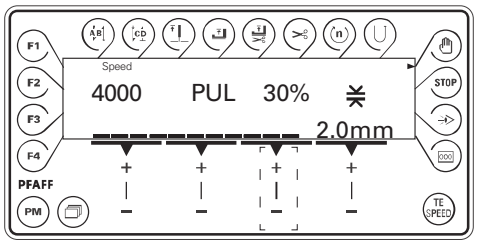
TE SPEED

- Press the **TE/Speed** key to take over the value and change to the sewing mode.

3 Commissioning

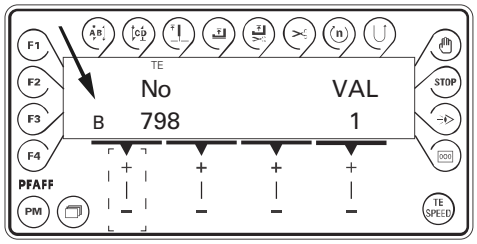
3.01 Basic position of the machine drive

- Switch on the machine.



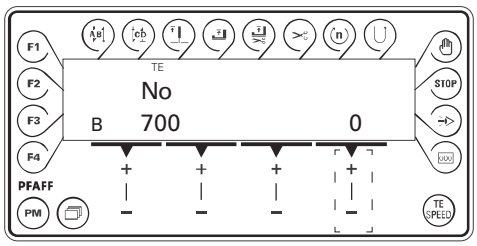
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.
- Select the technician level **B** (value "1") with parameter "798", see **Chapter 2.03.04 Selecting the user level.**



No

- By pressing the corresponding **+/- key** select the parameter group "700".

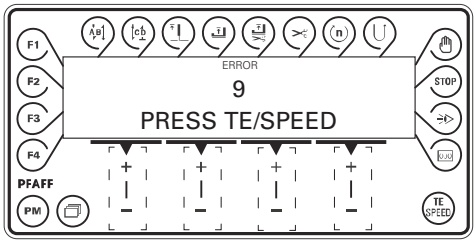


- Sew a stitch by operating the pedal.
- Turn the balance wheel in the direction of sewing until the needle point is level with the top edge of the needle plate.

TE SPEED

- Press the **TE/Speed** key to take over the setting and to conclude the input.

3.02 Testing the function of the start inhibitor



- Switch the machine on at the main switch and tilt back the sewing head.
  The error message "9" must appear on the control panel.

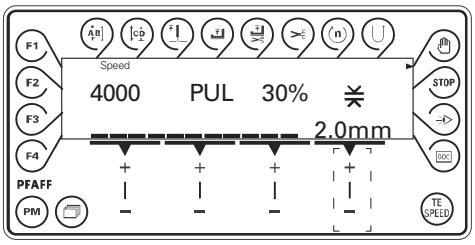
- If the message does not appear, check the setting of the safety switch
  (in the machine instruction manual).

- Set the sewing head upright again and acknowledge the error message by pressing the TE/Speed key. The machine is ready for operation again.

4 Setting up

4.01 Entering the puller feed stroke (stitch length)

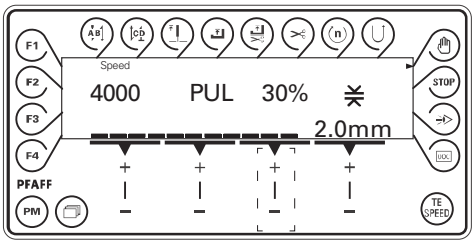
- Switch on the machine.



- Enter the feed stroke by pressing the corresponding +/- key.

The puller feed stroke setting must match the stitch length setting of the basic machine!

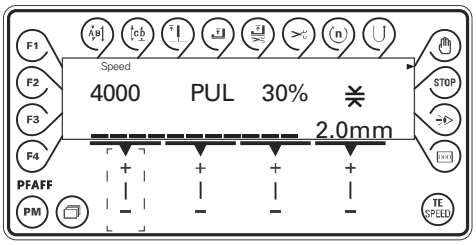
4.02 Setting the puller pressure



- Switch on the machine.
- Set the desired puller pressure by pressing the corresponding +/- key.
  The value for the current puller pressure (in %) can be read on the display.

4.03 Entering the maximum speed

- Switch on the machine.



- Enter the maximum speed by pressing the corresponding +/- key.

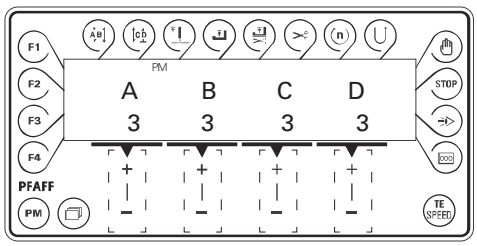
The max. speed is limited with parameter 607.

4.04 Entering the start and end backtacks

- Switch on the machine.

2 x TE SPEED

- Press the TE/Speed key twice to select the input menu for start and end backtacks.



A
- By pressing the corresponding +/- key select the desired value for the number of forward stitches (A) of the start backtack.

B
- By pressing the corresponding +/- key select the desired value for the number of reverse stitches (B) of the start backtack.

C
- By pressing the corresponding +/- key select the desired value for the number of reverse stitches (C) of the end backtack.

D
- By pressing the corresponding +/- key select the desired value for the number of forward stitches (D) of the end backtack.

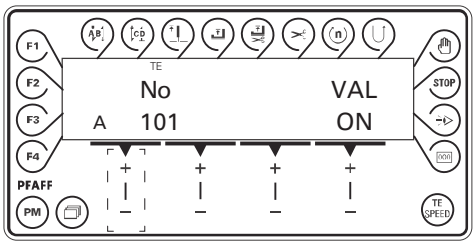
In the programmed sewing mode it is possible to call up the input menu for start and end backtacks by pressing the scroll key, see Chapter 5.02 Programmed sewing.

4.05 Setting the stitch counting function for the bobbin thread control

- Switch on the machine.

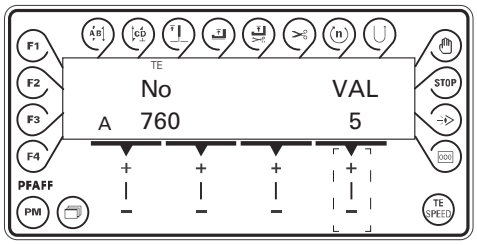
TE SPEED

- Press the **TE/Speed** key to call up the parameter input function.



No

- By pressing the corresponding **+/- key** select the parameter "760".



VAL

- Press the corresponding **+/- key** to set the number of remaining stitches, which can still be sewn after recognition by the bobbin thread control function.
  The selected value is multiplied by **10*** or **200**** and the result is the number of stitches. Example display 5 x 200** = 1000 stitches. The setting depends among other things on the thread strength.

TE SPEED

- If the **TE/Speed** key is pressed, the value is taken over and the machine changes into the sewing mode.

The bobbin thread rest counter can only be used, if parameter "660" is set at value "1" or "2".

* If for parameter 660 the value is "1", the multiplier is **10**

** If for parameter 660 the value is "2", the multiplier is **200**

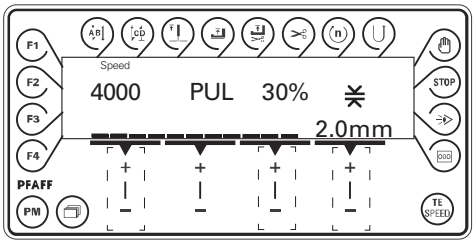
5 Sewing

In the sewing mode all relevant adjustments for the sewing operation are shown on the display and can be altered directly. Functions can be switched on and off by pressing the key.

In this mode a difference is made between **manual sewing** and **programmed sewing**. To change from manual to programmed sewing, press the **PM** key. In programmed sewing the text "**PM**" appears on the display.

5.01 Manual sewing

After the machine has been switched on, the maximum speed, the puller feed stroke and the puller pressure can be adjusted with the corresponding **+/- keys**.



Further functions in manual sewing, also see **Chapter 2.02.02Function keys:**


Start backtacks on/off


End backtacks on/off


Needle position raised on/off


Presser foot raised on/off


Presser foot raised at end of seam on/off


Thread trimming on/off


Sensor on/off

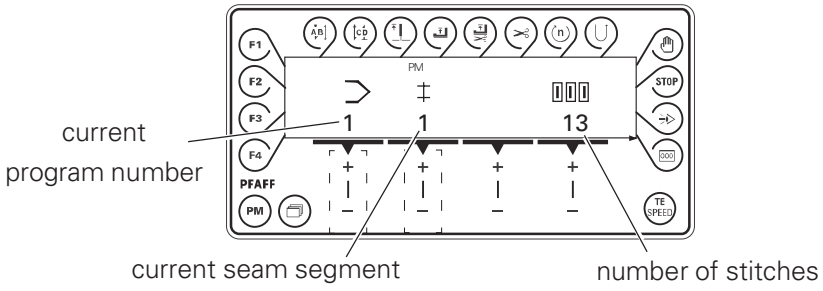
On the basic machine the stitch length is adjusted with the balance wheel. The stitch length for the puller is adjusted on the control panel

5.02 Programmed sewing

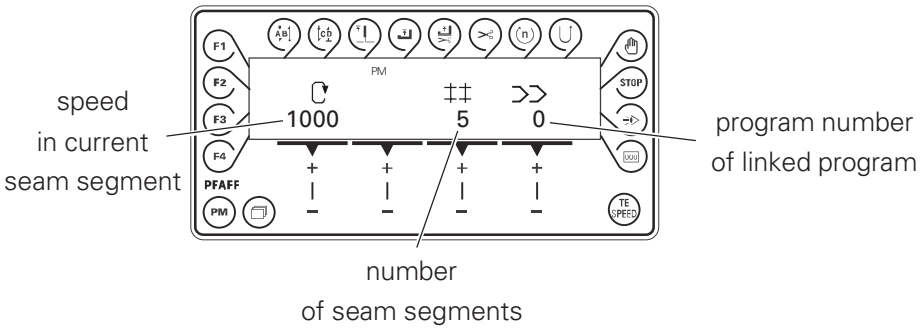
In the programmed sewing mode 99 programs, each with 9 seam sections and 999 stitches, can be programmed.
The fixed programs are used for the quick and easy production of seams with different numbers of stitches. The pedal setting „0“ is used to switch to the next seam section.

PM

After the machine has been switched on and the programmed sewing mode has been selected with the **PM** key, the display appears for selecting the program number, seam section and number of stitches.



With the **scroll** key other menus can be selected for entering the values for start and end backtacks and the maximum speed in the corresponding seam section.

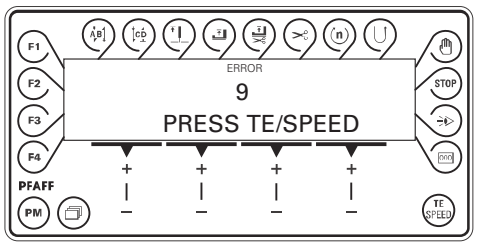


Further functions in programmed sewing, also see **Chapter 2.02.02 Function keys**:

- Start backtacks on/off
- End backtacks on/off
- Needle position raised on/off
- Presser foot raised on/off
- Presser foot raised after thread trimming on/off
- Thread trimming on/off
- Seam section speed on/off
- Reverse sewing direction on/off
- Manual sewing on/off
- Stop on/off
- Sensor on/off
- Stitch count on/off

5.03 Error messages

If a fault occurs, the text "ERROR" appears on the display, together with an error code and short instructions. An error message is caused by incorrect settings, faulty elements or seam programs as well as by overload conditions.



- Correct the error.

- Acknowledge error correction by pressing the **TE/Speed** key.

6 Parameter Settings

Group	Parameter	Description	Access level	Adjustment range	Standard value
2	252	Puller roller clearance for start backtack ca. 4 mm	B, C	5 - 200	30
	254	Puller roller clearance after trimming ca. 7mm	B, C	10 - 255	50
3	302	Holding power of puller roller when rising	B, C	50 - 200	140
	318	Puller lifts with automatic presser foot lift and starts with a delay depending on parameter 445. 1 = on, 0 = off.	B, C	0 - 99	1
4	445	No. of stitches before puller roller touches down after machine start (Only when 318 is set at "1")	B, C	0 - 99	0
	499	Stitches for puller delay after knee switch	A, B, C	0 - 99	0
6	607	Maximum speed	B, C	300 - 6000	▲
	660	Bobbin thread monitoring 0 = 0ff 1 = by sensor (-926/06) 2 = by stitch counting	A, B, C	0 - 2	0
7	700	Needle position 0 (needle reference position	B, C	0 - 255	*
	702	Needle position 1 (needle lowered) 1181, 1183, 3701 5483	B, C	0 - 255	 90 100
	703	Needle position 2 (take-up lever raised) 1181, 1183, 3701 5483	B, C	0 - 255	 236 208
	760	Multiplier for the fixed value (200) for stitch count	A, B, C	0 - 250	5
	799	Selected machine class 1181, 3701 1183 5483	C	1 - 3	 1 2 3
8	800	Rotating direction of the motor 1181, 1183, 3701 5483	C	0 - 1	 0 1

Group	Parameter	Description	Access level	Adjustment range	Standard value
9	985	Switch on angle for thread trapper	B, C	0 -255	67
	986	Switch off angle for thread trapper	B, C	0 -255	206
	989	Thread trapper at beginning of seam 1 = yes, 0 = no	B, C	0 - 2	0
10	1001	Stepping motor starting angle	B, C	0 - 255	
		1181, 3701			25
		1183			170
		5483			144
	1003	Feed roller radius	C	5 - 50	15
11	1100	Operating mode stepping motor 1	C	0 - 2	1
	1101	Rotation direction stepping motor 1 1 = anti-clockwise, 0 = clockwise	C	0 - 1	0
	1102	Stepping mode stepping motor 1 1 = full-step, 2 = half-step, 3 = quarter step, 4 = eighth step	C	0 - 4	3
	1103	Maximum current stepping motor in %	C	0 - 100	50
	1104	Reducing current stepping motor in %	C	0 - 50	30
	1105	Stepping motor 1, start-stop-time (time for 1st step at start-stop-speed)	C	10 - 4000	180
	1106	Maximum speed stepping motor 1	C	10 - 4000	843
	1107	Acceleration in % of max. speed on stepping motor 1	C	1 - 50	28
	1108	Number of brake steps of stepping motor 1	C	1 - 50	5
	1160	Feed motion compensation at beginning of seam	A, B, C	0 - 99	20

▲ See Chapter 3 Specifications in the machine Instruction Manual.

* Adjustment see Chapter 3.01 Basic position of the machine drive unit.

The standard values listed in the table are basic settings, which can be altered if necessary.
Further parameters are contained in the Motor Instruction Manual

7 Internet update of the machine software

The machine software can be updated with PFAFF flash programming. For this purpose the PFP boot program and the appropriate control software for the machine type must be installed on a PC. To transfer the data to the machine, the PC and the machine control unit must be connected with an appropriate null modem cable (part no. 91-291 998-91).

The PFP boot program and the control software of the machine type can be downloaded from the PFAFF-homepage using the following path:
www.pfaff-industrial.com/pfaff/de/service/downloads

To update the machine software carry out the following steps:

While the machine software is being updated, no setting up, maintenance or adjustment work may be carried out on the machine!

- Switch off the machine.
- Connect the PC (serial interface or appropriate USB-adapter) and the machine control unit (RS232).
- Switch on the PC and start the PFP boot program.
- Select the machine type.
- Press the „programming“ button.
- An auxiliary program (Quickloader) is started.
- Switch on the machine within 60 seconds.
- The software update is carried out, the updating status is shown on the bar display.
- After the update has been completed, the message "**Software updated successfully completed**" appears.

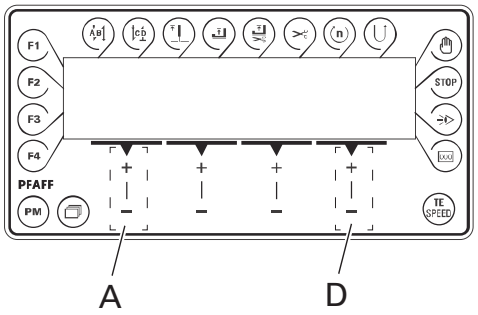
If this message does not appear, the entire procedure must be repeated!
The operational reliability of the machine is not restored until the programming has been carried out successfully and without errors.

- Switch off the machine, end the quickloader and PFP-boot program.
- End the connection between the PC and the machine control unit.
- Switch on the machine.
  A plausibility control is carried out and, if necessary, a cold start.

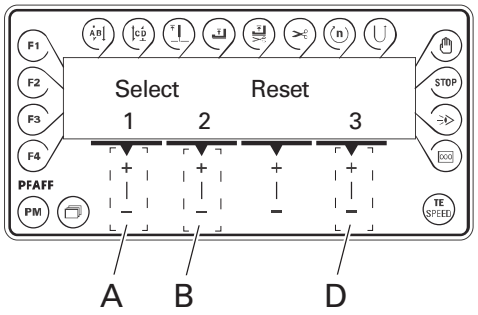
More information and assistance is at your disposal in the file „PFPHILFE.TXT“, which can be called up from the PFP boot program by pressing the „help“ button.

8 Reset / Cold start

After selecting the reset menu, by pressing the corresponding key it is possible to delete seam parameters, to delete seam programs or to carry out a cold start.



- Press and hold "+" on keys A and D and switch on the machine.



1 = Resetting the seam parameters

- Press "+" on key A.
  All seam parameters are deleted, "MASTER-RESET 1" is displayed for a short time on the screen.

2 = Resetting the seam programs

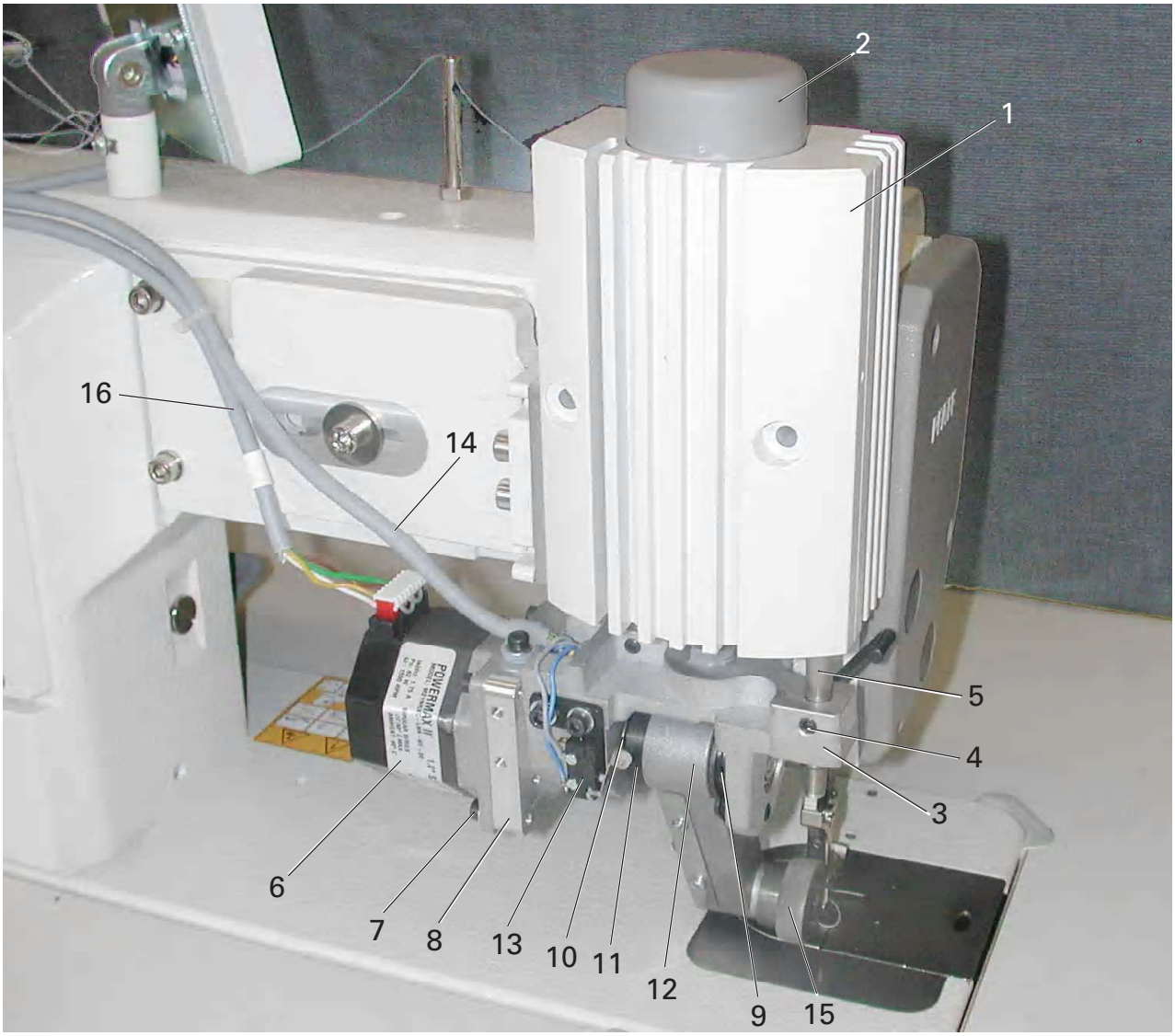
- Press "+" on key B.
  All seam programs are deleted, "MASTER-RESET 2" is displayed for a short time on the screen.

3 = Cold start

- Press "+" on key D.
  The values of the machine control unit are set back to their basic values, except the value for the machine class. "COLD START" is displayed for a short time on the screen.

After a cold start, all programmed values are reset to their state at the time of delivery. For this reason, after a cold start, the parameters **799, 800** and **700** must be checked and reset if necessary.

9 Partslist



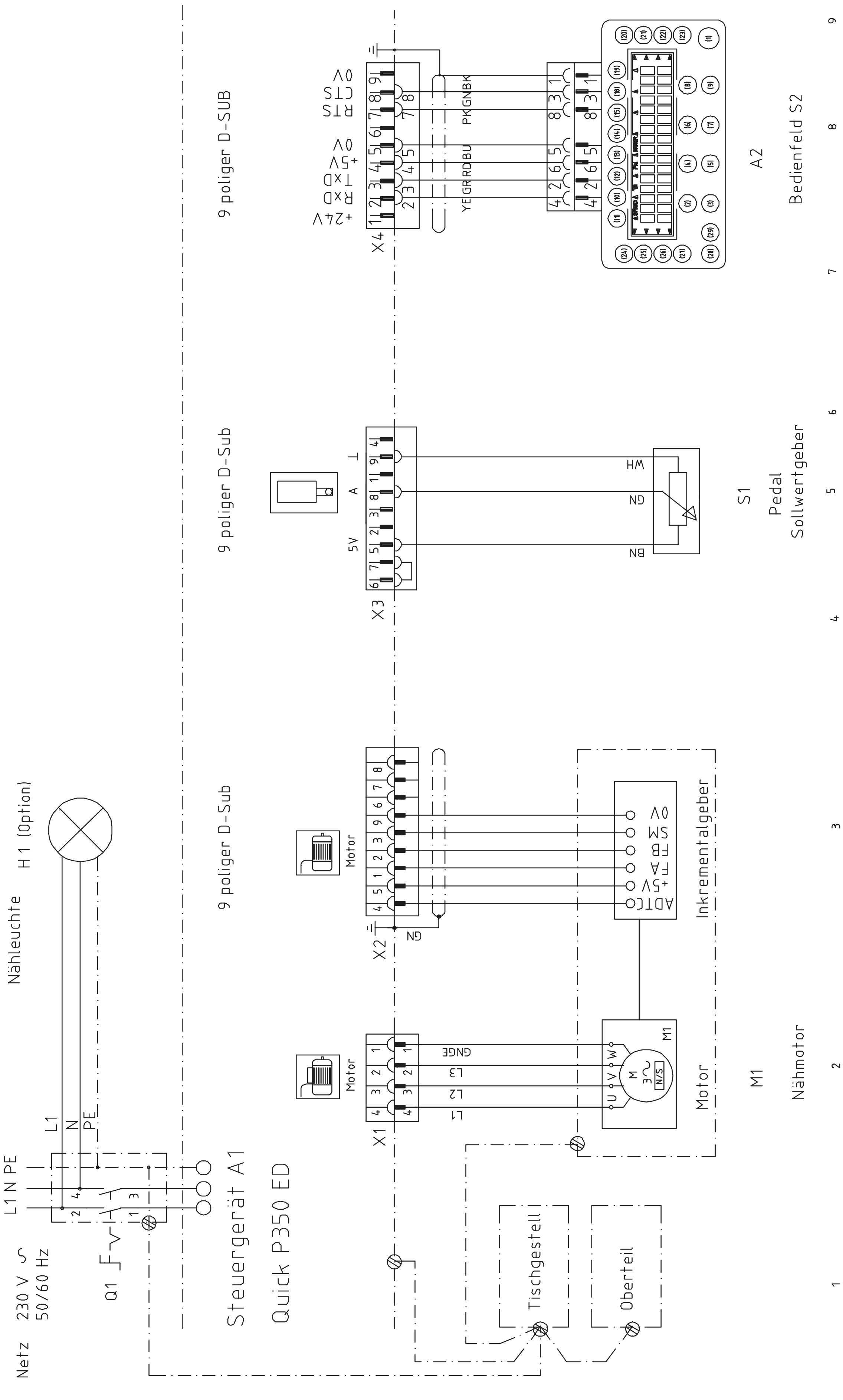
Item No	Part No.
1 - 15	95-774 673-71/895
1	91-262 916-91
2	91-262 983-75/699
3 - 4	91-262 920-91
3	91-262 921-05
4	11-330 277-15 (2x)
5	91-262 919-05 (2x)
6	71-520 000-70
7	11-130 179-15 (4x)
8	95-774 647-05

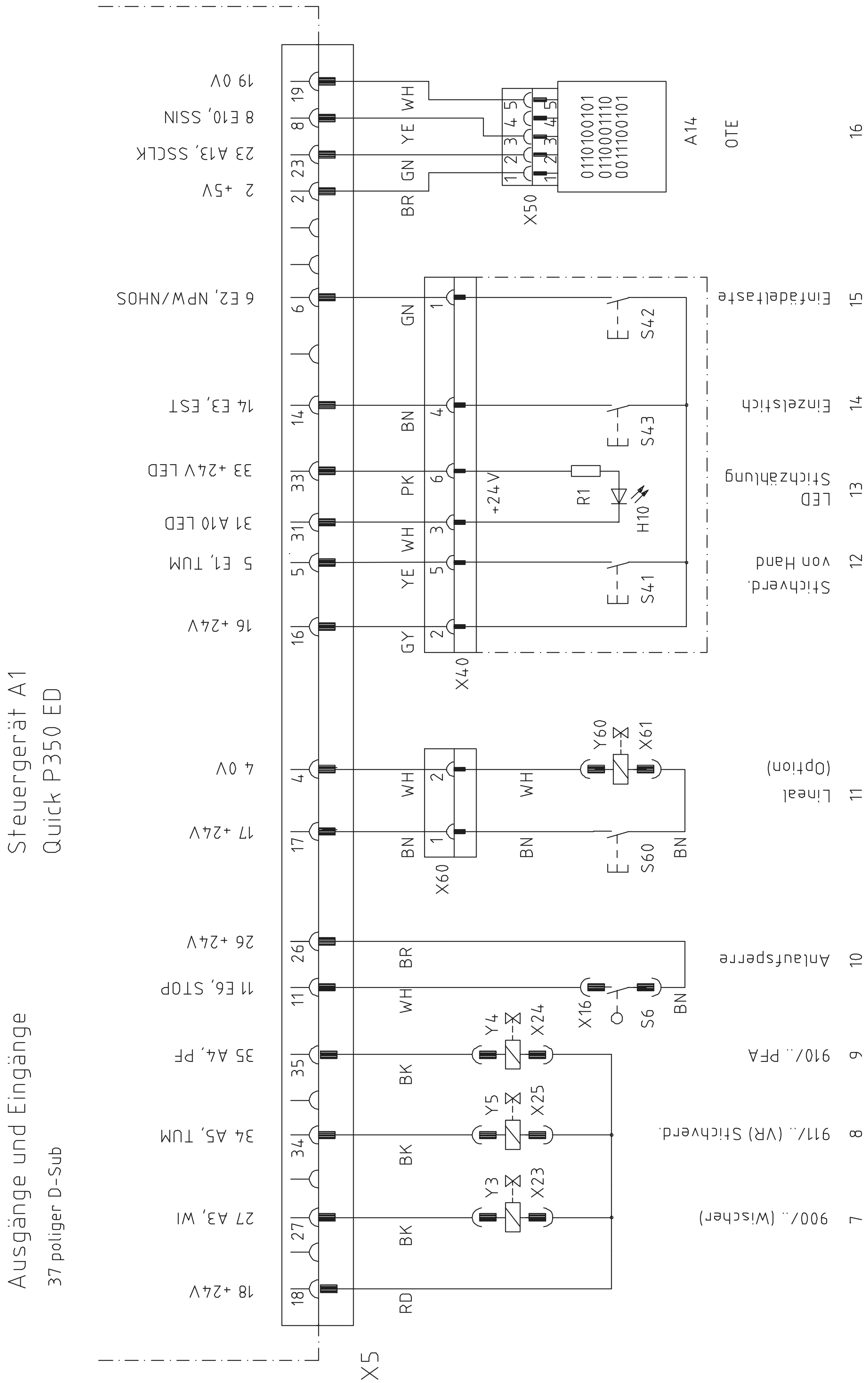
Item No	Part No.
9	91-262 860-92
10	91-262 865-92 (2x)
11	16-409 981-05
12	95-774 686-91
13	71-120 006-33
14	95-784 321-91
15	95-774 630-05 (10 mm wide)
16	91-292 276-91

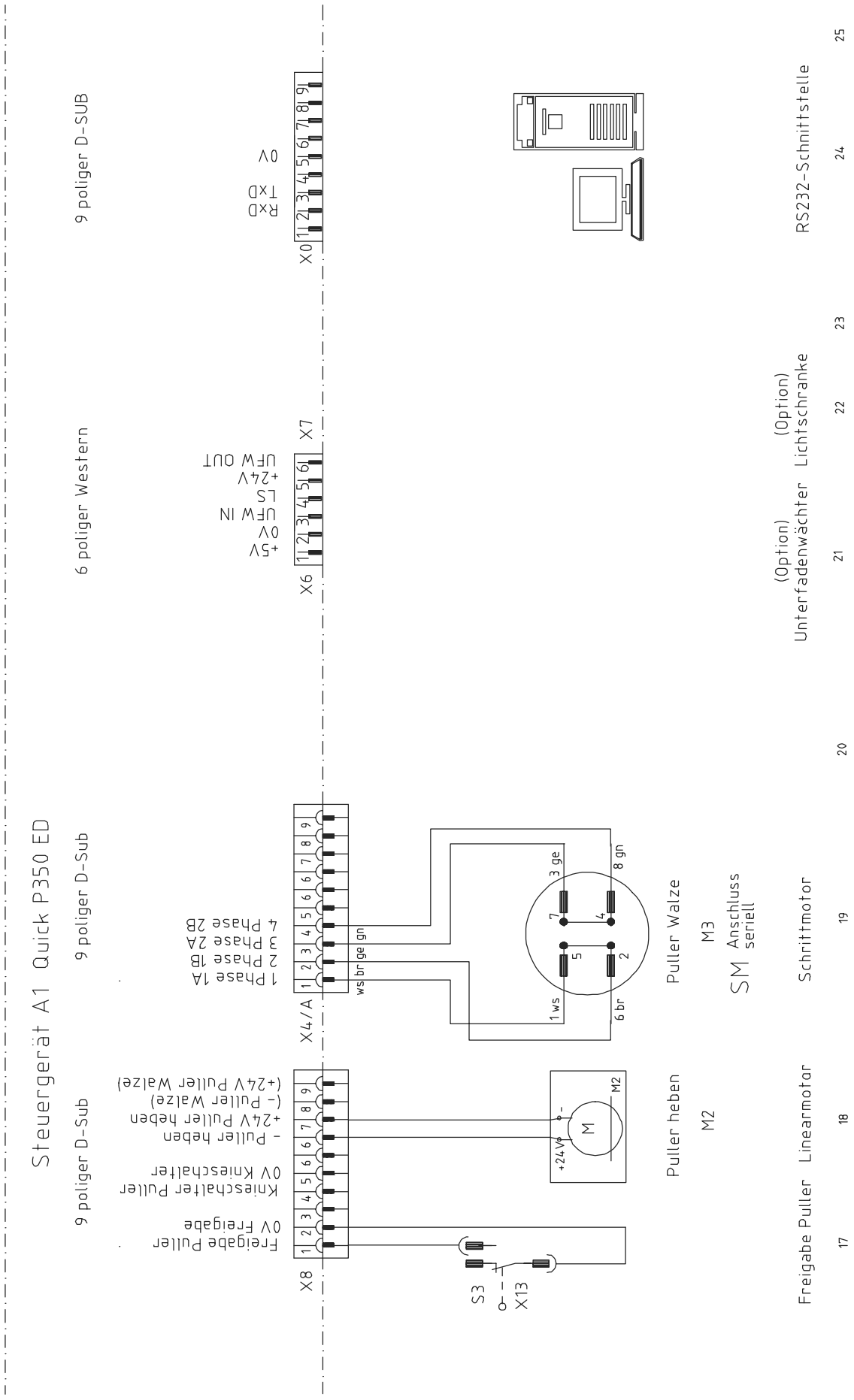
10 Circuit diagrams

10.01 Reference lists for the circuit diagrams of the 1180 and 3701 series (Connection diagram 91-191 504-95)

A1	Controller Quick P350 ED
A2	S2 control panel
A14	Sewing head recognition unit (OTE)
H1	Sewing lamp
H10	LED Stitch counter
M1	Sewing motor
M2	Linear motor lift puller
M3	Stepping motor roller presser
Q1	Main switch
S1	Pedal set value transmitter
S3	Puller release
S6	Start inhibitor E6 (stop)
S41	Manual backtacking key
S42	Needle position change key (threading key)
S43	Single stitch switch
S60	Edge guide key (optional)
X0	PC-interface (RS 232)
X1	Motor
X2	Incremental transmitter
X3	Speed control unit
X4/A	M3 stepping motor puller roller
X5	Outputs-Inputs
X6	Bobbin thread monitor (optional)
X7	Light barrier (optional)
X8	M2 linear motor lift puller
X13	S3 puller release
X16	S6 start inhibitor E6 (stop)
X23	Y23-900/.. Thread trimmer
X24	Y24-910/.. Automatic foot lift
X25	Y25-911/.. Backtacking/condensed stitches
X40	Keyboard S41-S43 + H11
X50	A14 sewing head recognition unit (OTE)
X60	S60 + Y60 Edge guide (optional)
Y2	-900/..Thread trimmer
Y4	-910/..Automatic presser foot lift
Y5	-911/Backtacking / condensed stitches
Y60	Edge guide (optional

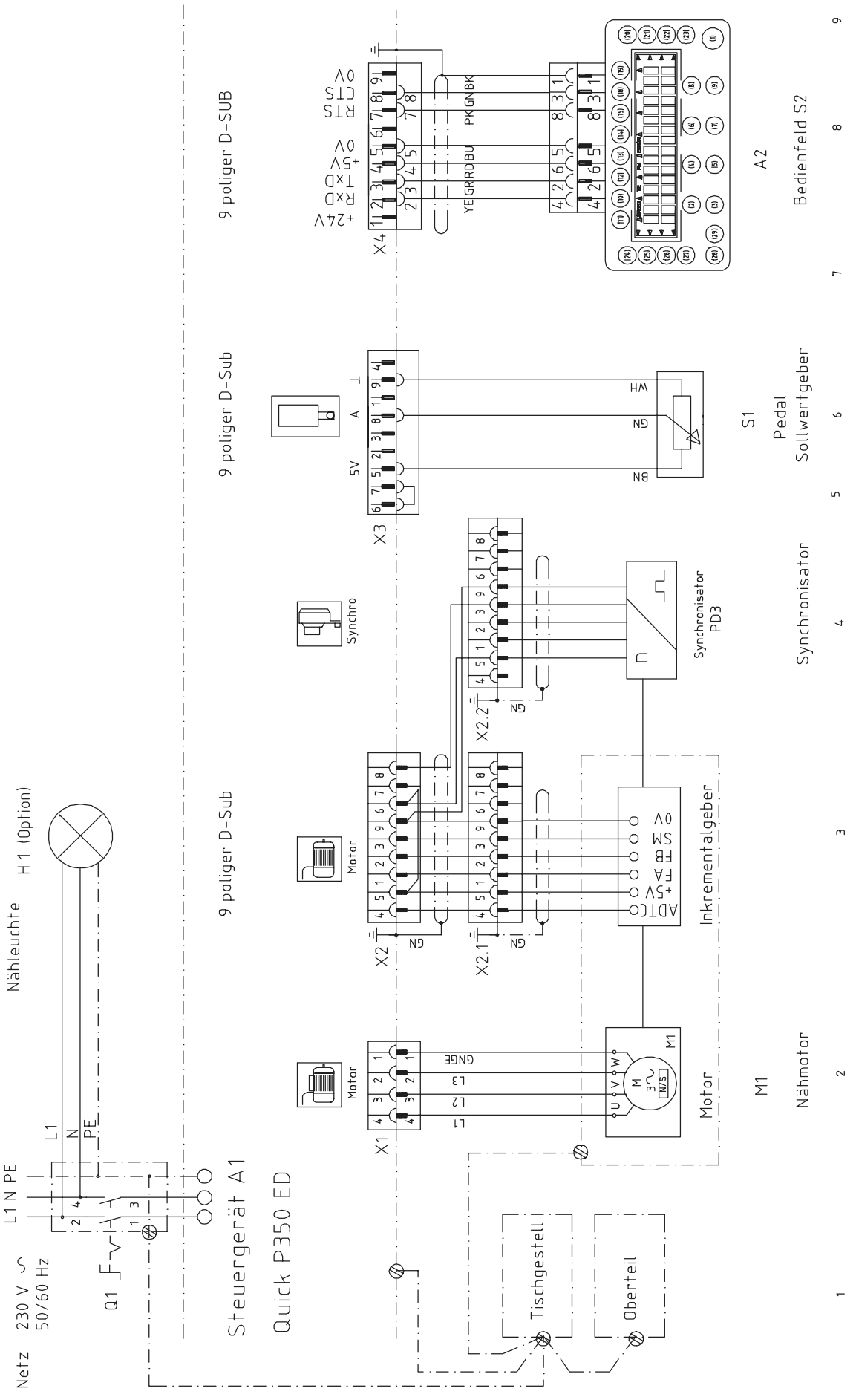

Netz
230 V ∿
50/60 Hz
L1 N PE
Q1
Steuergerät A1
Quick P350 ED
Nähleuchte
H 1 (Option)
L1
N
PE
Tischgestell
Oberteil
X1
Motor
L1
L2
L3
GNGE
M1
Motor
Nähmotor
X2
Motor
GN
9 poliger D-Sub
Inkrementalgeber
ADTC
+5V
FA
FB
SM
0V
X3
5V
A
T
9 poliger D-Sub
WH
GN
BN
S1
Pedal
Sollwertgeber
X4
+24V
RxD
TxD
+5V
0V
RTS
CTS
0V
9 poliger D-SUB
YE GR RD BU
PK GN BK
A2
Bedienfeld S2

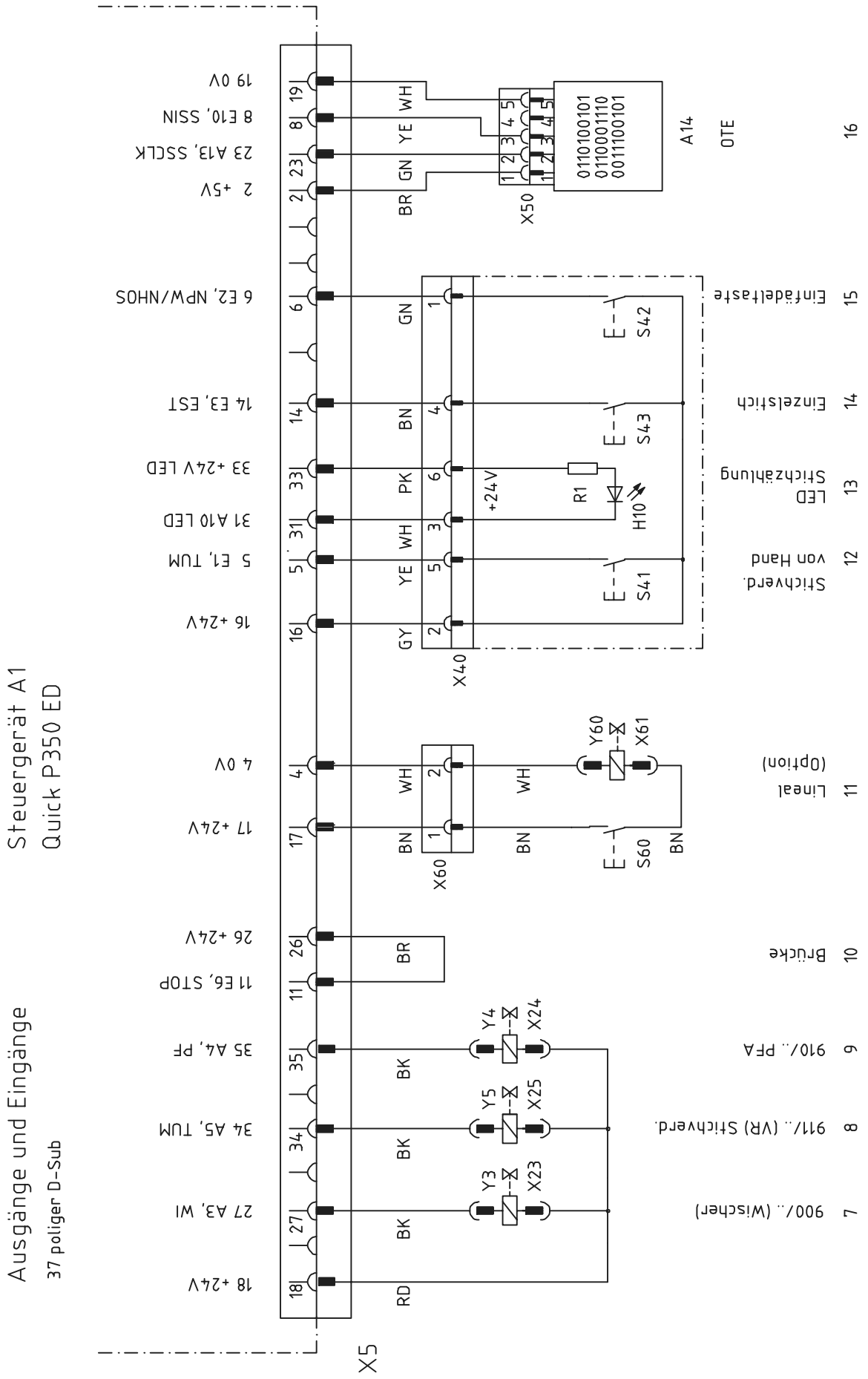

Steuergerät A1
Quick P350 ED
Ausgänge und Eingänge
37 poliger D-Sub
X5
19 0V
8 E10, SSIN
23 A13, SSCLK
2 +5V
6 E2, NPW/NHOS
14 E3, EST
33 +24V LED
31 A10 LED
5 E1, TUM
16 +24V
4 0V
17 +24V
26 +24V
11 E6, STOP
35 A4, PF
34 A5, TUM
27 A3, WI
18 +24V
A14
OTE
X50
0110100101
0110001110
0011100101
X40
+24V
S42
S43
R1
H10
S41
X60
Y60
X61
S60
X16
S6
Y4
X24
Y5
X25
Y3
X23
16
15 Einfädeltaste
14 Einzelstich
13 Stichzählung LED
12 Stichverd. von Hand
11 Lineal (Option)
10 Anlaufsperre
9 910/.. PFA
8 911/.. (VR) Stichverd.
7 900/.. (Wischer)

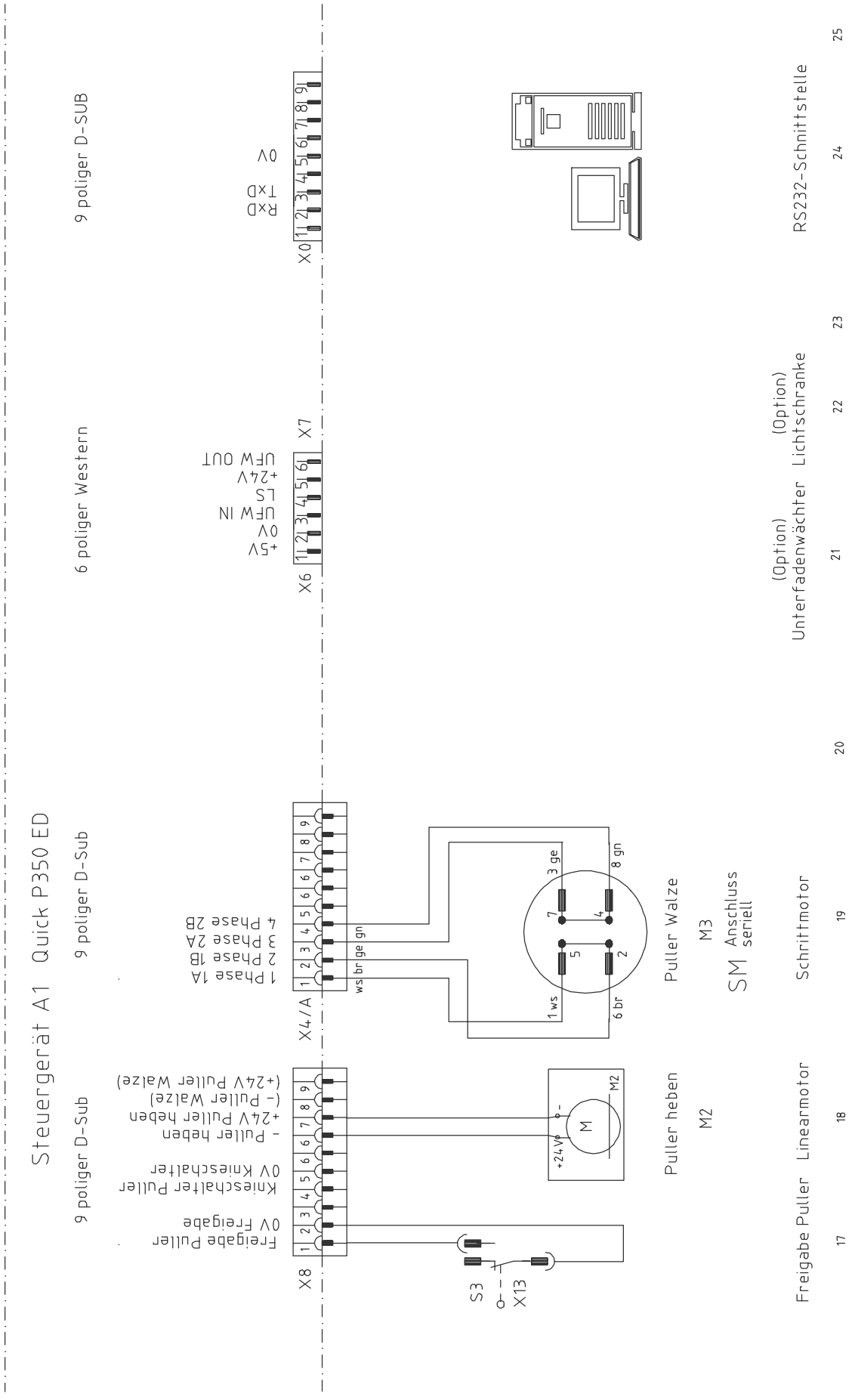

Steuergerät A1 Quick P350 ED
9 poliger D-Sub
9 poliger D-Sub
6 poliger Western
9 poliger D-SUB
X8
X4/A
X6
X7
X0
Freigabe Puller
0V Freigabe
Kniesschalter Puller
0V Kniesschalter
- Puller heben
+24V Puller heben
(- Puller Walze)
(+24V Puller Walze)
1 Phase 1A
2 Phase 1B
3 Phase 2A
4 Phase 2B
+5V
0V
UFW IN
LS
+24V
UFW OUT
RxD
TxD
0V
S3
X13
M
M2
+24V
Puller heben
M2
Puller Walze
M3
SM Anschluss seriell
Schrittmotor
Freigabe Puller Linearmotor
(Option)
Unterfadenwächter
(Option)
Lichtschranke
RS232-Schnittstelle

10.02 Reference lists for the circuit diagrams of the 5483 (Connection diagram 91-191 504-95)

A1	Controller Quick P350 ED
A2	Control panel BDF S2
A14	Sewing head recognition unit (OTE)
H1	Sewing lamp
H10	LED Stitch counter
M1	Sewing motor
M2	Linear motor lift puller
M3	Stepping motor roller presser
Q1	Main switch
S1	Pedal set value transmitter
S3	Puller release
S41	Manual backtacking key
S42	Needle position change key (threading key)
S43	Single stitch switch
S60	Edge guide key (optional)
X0	PC-interface (RS 232)
X1	Motor
X2	Incremental transmitter
X2.1	Inkrementalgeber Adapter
X2.2	Synchronisator Adapter
X3	Speed control unit
X4	A2 control panel BDF S2
X4/A	M3 stepping motor puller roller
X5	Outputs-Inputs
X6	Bobbin thread monitor (optional)
X7	Light barrier (optional)
X8	M2 linear motor lift puller
X13	S3 puller release
X23	Y23-900/.. Thread trimmer
X24	Y24-910/.. Automatic foot lift
X25	Y25-911/.. Backtacking/condensed stitches
X40	Keyboard S41-S43 + H11
X50	A14 sewing head recognition unit (OTE)
X60	S60 + Y60 Edge guide (optional)
Y2	-900/..Thread trimmer
Y4	-910/..Automatic presser foot lift
Y5	-911/Backtacking / condensed stitches
Y60	Edge guide (optional


Netz 230 V ~ 50/60 Hz
L1 N PE
Q1
Steuergerät A1
Quick P350 ED
Tischgestell
Oberteil
Nähleuchte H 1 (Option)
9 poliger D-SUB
9 poliger D-Sub
9 poliger D-Sub
Motor
Synchro
Motor
X1
X2
X2.1
X2.2
X3
X4
M1
Motor
Nähmotor
Inkrementalgeber
Synchronisator PD3
Synchronisator
S1
Pedal
Sollwertgeber
A2
Bedienfeld S2


Steuergerät A1
Quick P350 ED
Ausgänge und Eingänge
37 poliger D-Sub
X5
19 0V
8 E10, SSIN
23 A13, SSCLK
2 +5V
6 E2, NPW/NHOS
14 E3, EST
33 +24V LED
31 A10 LED
5 E1, TUM
16 +24V
4 0V
17 +24V
26 +24V
11 E6, STOP
35 A4, PF
34 A5, TUM
27 A3, WI
18 +24V
WH
YE
GN
BR
BN
PK
GY
BK
RD
X50
A14
OTE
0110100101
0110001110
0011100101
X40
S42
S43
S41
R1
H10
+24V
X60
S60
Y60
X61
Y4
X24
Y5
X25
Y3
X23
16
15
14
13
12
11
10
9
8
7
Einfädeltaste
Einzelstich
LED Stichzählung
Stichverd. von Hand
Lineal (Option)
Brücke
910/.. PFA
911/.. (VR) Stichverd.
900/.. (Wischer)


Steuergerät A1 Quick P350 ED
9 poliger D-Sub
9 poliger D-Sub
6 poliger Western
9 poliger D-SUB
X8
X4/A
X6
X7
X0
S3
X13
Freigabe Puller
0V Freigabe
Knieschalter Puller
0V Kniesschalter
- Puller heben
+24V Puller heben
(- Puller Walze)
(+24V Puller Walze)
1 Phase 1A
2 Phase 1B
3 Phase 2A
4 Phase 2B
+5V
0V
UFW IN
LS
+24V
UFW OUT
RxD
TxD
0V
+24V
M
M2
1 ws
6 br
3 ge
8 gn
ws br ge gn
Puller Walze
M3
SM Anschluss seriell
Puller heben
M2
Schrittmotor
Linearmotor
Freigabe Puller
(Option)
Unterfadenwächter
(Option)
Lichtschranke
RS232-Schnittstelle
17
18
19
20
21
22
23
24
25

PFAFF

PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
E-Mail: info@pfaff-industrial.com

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PFAFF

Instruction Manual

Quick EcoDrive P350 EDx

Part 3

Parameter list and connection plan

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Postfach 3020

D-67653 Kaiserslautern

Königstr. 154

D-67655 Kaiserslautern

List of Contents Part 3

11. Survey and List of Parameters

11.1 Explanation of Parameter Survey

The parameter survey is designed as an aid for finding parameters quickly. It is a summary of references for the parameter list. Listed behind each reference are all parameters which exert an influence on the function described by the reference.

The parameter survey is divided into five columns:
Column 1 shows the references (functions) to which parameters are assigned.
Column 2 shows the abbreviations of the respective functions.
Column 3 shows all parameters (setting numbers) belonging to the respective reference.
Column 4 shows, for each function (reference) which controls inputs or outputs, the applicable indications such as Ex or Ax which can also be found on the connections diagram.
Column 5 shows, for each function (control inputs (Ex) or control outputs (Ax)), the respective plugs with the number of contacts (see connections diagram).

Example for searching a parameter:
Keyword (function): inverse rotation
The parameter survey shows in column 3 the parameter numbers 618, 801.

Suppose that the inverse rotation function is to be enabled. The parameter list shows this function under parameter number 618.

11.2 Explanation of Parameter List

The parameter list is divided into 5 columns. These comprise, in
column 1: the parameter number,
column 2: is the explanation (meaning) of the parameters and the coding system of row 1 of the keys of the mini operator's panel, used when the parameter concerned can be programmed with the mini operator's panel,
column 3: the programming level (A, B, C) on which the parameter in question can be accessed,
column 4: the range of values within which the parameter in question can be set,
column 5: the value of the parameter in question is set on delivery ex factory.

Parameters having "either/or" validity (software switches) can merely be set to value I or II. In the case of such parameters, column 4 is empty.
Parameter numbers in acute brackets; e.g. <105>, mean the value (content) set for the parameter in question.

Example:
107 Speed for front backtack when <106> = I
I limited by <105>
II limited by <607>

Explanation:
Parameter 107 is valid only the the value (content) of parameter <106> = I.
If parameter 107 is set to I (<107> = I), then the speed for the front backtack is limited by parameter 105, e.g. <105> = 1500. If parameter 107 is set to II (<107> = II), then the speed for the front backtack is limited by the value of parameter 607, e.g. <607> = 4000.

Function	Abbrev'n	Parameter	Input Output	Connection Socket/Contacts
Accelerate	DRZAN	722		
Backtack	RIE	105/107/110 364/523/584 585		
Backtack inversion	RIV	748		
Backtack suppression	RIUNT	748		
Blower	BLA	668/751		
Brake	DRZAB	723		
Catcher	FANG	707/751/752 786/940		
Chopper	MESSE	105/110		
Clean-cut	CC	626/627/752 786/940		
Control	REG	880/884/885 886/887/889 890/898/900		
Decorative backtack	ZRIE	522/523/530 775		
Defect search	HWT	797		
Delay	VERZ	623/642/643 730/761/770 939/969		
Direction of rotation	DRR	800		
Display	ANZ	605/933		
Edge trimmer	KS	356/387		
End backtack	ER	110/254		
Engine	MOT	897		
Feed reverse	TUM	301/364/494 643/721/939 969		
Front backtack	AR	105/106/107 252		
Hardware test	HWT	797		
Inverse rotation	RDR	618/623/801		

Linear motor	LINMOT	252/254/302 668
Machine class	MAKL	799
Machine run	ML	387
Needle position	NAPO	522/700/702 703/705/706 707/710/746 748
Needle position change-over	NPW	446/748
Needle up without trimming	NHOS	446/710/748
Number of stitches	STZA	111/112/445 499/627/760
ON period	EINZ	715/751/752 889
Operator panel	BDF	101
Photocell	LS	111/112/113 163/199/615
Presser foot	PF	318/356/642 651/668/719 729/730/770
Program	PR	203/206/311 313
Programming level C	EBC	798
Puller	PULL	252/254/302 318/445/499
Residual brake	STBR	718
Seam end	NE	110/206/254
Seam start	NA	105/989
Single stitch	EST	446/748
Soft start	SANL	116/117
Speed	DRZ	105/106/107 110/117/199 203/530/585 605/606/607 608/609/901
Speed decrease	DRZAB	723
Speed increase	DRZAN	722
Speed limitation	DB	585

11.4 List of Parameters P350EDx 1_052_12 (PARAM.EN)

No.	Function (Meaning)	Level	Range of Values	Value	Standard
101	(BDF) Audible signal of the control panel pushbutton 1 = on 0 = off	A,B,C		0	Kl. 1, 2, 3, 4
105	(AR/RIE/DRZ/MESSER/NA/SAUG/STVD) Speed for front backtack / stitch condensation	B,C	0300 - 2000	1200	Kl. 1, 2, 3, 4
106	(AR/DRZ/STVD) Speed for front backtack / stitch condensation 1 variable (treadle-controlled) 0 constant (corresponding to <105>)	B,C		0	Kl. 1, 2, 3, 4
107	(AR/RIE/DRZ/STVD) Speed for front backtack / stitch condensation when <106> = I 1 limited by <105> 0 limited by <607>	B,C		0	Kl. 1, 2, 3, 4
110	(ER/RIE/DRZ/MESSER/NE/SAUG/STVD) Speed for end backtack / stitch condensation	B,C	0300 - 2000	1200	Kl. 1, 2, 3, 4
111	(LS/STZA) Light barrier compensation stitches 1 (stitches from light barrier clear to seam end)	A,B,C	0001 - 0030	8	Kl. 1, 2, 3, 4
112	(LS/STZA) Number of stitches for light barrier fade-out on knit fabrics (according to stitch size)	A,B,C	0000 - 0100	0	Kl. 1, 2, 3, 4
113	(LS/START) Start with light barrier 1 when light barrier is dark only 0 also when light barrier is clear	B,C		0	Kl. 1, 2, 3, 4
116	(SANL) Soft start stitches	A,B,C	0000 - 0030	0	Kl. 1, 2, 3, 4
117	(SANL/DRZ) Speed for soft start stitches	B,C	0030 - 0640	400	Kl. 1, 2, 3, 4
163	(LS) Sewing with photocell 1 yes 0 no	B,C		0	Kl. 1, 2, 3, 4
199	(DRZ/LS) Speed for light barrier compensation stitches	B,C	0300 - 2000	1200	Kl. 1, 2, 3, 4
203	(PR/DRZ) Speed for seam program 1 variable (treadle-controlled) 0 constant (corresponding to <221> or <222>)	B,C		1	Kl. 1, 2, 3, 4
206	(NE/PR/STOP) Interrupt/discontinue seam sections at speed = constant (<203> = II) 1 with treadle -2 0 with treadle 0	B,C		0	Kl. 1, 2, 3, 4
252	(AR/LINMOT/PULL) Raise level of the puller (linear motor) with AR	B,C	0005 - 0200	19	Kl. 1, 2, 3, 4
254	(ER/LINMOT/NE//PULL) Raise level of the puller (linear motor) with ER and after seam end	B,C	0010 - 0255	25	Kl. 1, 2, 3, 4
301	(TUM) Switch-on voltage of the magnet for transport change-over 1 24V 0 32V	C		0	Kl. 1, 2, 3, 4
302	(LINMOT/PULL) Positional holding current of the linear motor	B,C	0050 - 0200	119	Kl. 1, 2, 3, 4
311	(PR/SN) Cancellation of stitch count 1 with thread cutting 0 without thread cutting	B,C		1	Kl. 1, 2, 3, 4
313	(PR) Programs are backtack programs (darning programs) 1 yes 0 no	B,C		0	Kl. 1, 2, 3, 4
318	(PULL/PF) Puller lifts with PFA and activates delayed according to parameter <445> 1 on 0 off	B,C	0000 - 0099	1	Kl. 1, 2, 3, 4

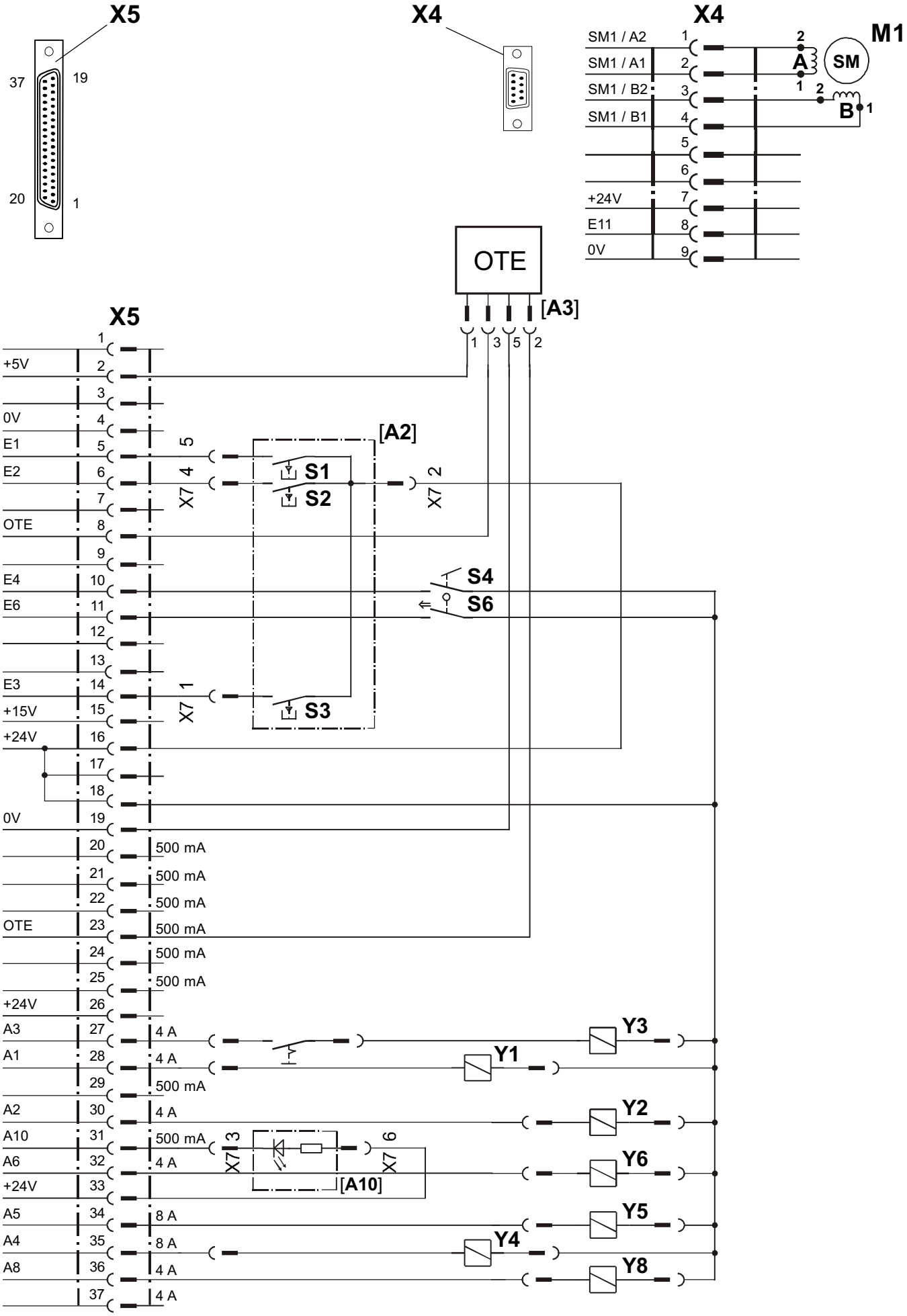
356	(PF/SAUG/KS) Input is at 1 Presser foot 0 Vacuuming	B,C		1	Kl. 1, 2, 3, 4
364	(RIE/STVD/TUM) Transport change-over means for 1 Back-tack 0 Stitch condensation	B,C		1 0	Kl. 1, 2, 4 Kl. 3
382	(FW) Switching threshold of the analogue input for the thread monitor	B,C	0000 - 0100	15	Kl. 1, 2, 3, 4
387	(ML/KS) Output (motor run) is active 1 With Pedal = 1D (Motor running) 0 With Pedal = 1 (Lower presser foot)	B,C		1	Kl. 1, 2, 3, 4
445	(PULL/STZA) Stitches for puller delay	B,C	0000 - 0099	15	Kl. 1, 2, 3, 4
446	(NHOS/NPW/EST) Input is 1 = needle up without trimming 2 = needle position change-over 3 = single stitch 4 = single stitch with reduced length 5 = backtack inversion 6 = backtack suppression 7 = change-over position 8 = puller lift switched off 9 = change-over needle position step by step, forward 10 = change-over needle position step by step, backward	B,C	0001 - 0007	1	Kl. 1, 2, 3, 4
494	(FK/TUM) Function from external key (E1) 0 = manual feed reverse 1 = thread clamp at seam start on / off	B,C	0000 - 0001	0	Kl. 1, 2, 3, 4
499	(STZA/PULL) Number of stitches for slowed down lowering of puller after operating switch S8 (knee switch)	A,B,C	0000 - 0099	0	Kl. 1, 2, 3, 4
522	(NAPO/ZRIE) Needle position when stop occurs during decorative backtack (stitch in stitch) 1 position 2 (up) 0 position 1 (down)	B,C		0	Kl. 1, 2, 3, 4
523	(RIE/ZRIE) Backtack 1 decorative backtack (stitch in stitch) 0 standard backtack	A,B,C		0	Kl. 1, 2, 3, 4
530	(DRZ/ZRIE) Speed (max.) for decorative backtack	B,C	0300 - 2000	1000	Kl. 1, 2, 3, 4
538	(FSL/TA) Timing of output (thread tension release) (0 = 100%)	B,C	0010 - 0050	30	Kl. 1, 2, 3, 4
584	(RIE) Backtack 1 four times 0 double	B,C		0	Kl. 1, 2, 3, 4
585	(DRZ/DB/RIE) Speed limitation	B,C	0300 - 2500	1000	Kl. 1, 2, 3, 4
605	(DRZ/ANZ) Actual speed in display (<725>) 1 yes 0 no	B,C		1	Kl. 1, 2, 3, 4
606	(DRZ) Speed: level 1 (min.)	B,C	0030 - 0650	180	Kl. 1, 2, 3, 4
607	(DRZ) Speed: level 12 (max.)	B,C	0300 - 5500 0300 - 5500	4000 5000	Kl. 1, 2, 4 Kl. 3
608	(DRZ) Accelleration curve (Pedal characteristic) 1 = linear 0 = non linear	B,C		1	Kl. 1, 2, 3, 4
609	(SN/DRZ) Trimming speed 1	B,C	0060 - 0300	180	Kl. 1, 2, 3, 4
615	(LS) End recognition when photocell goes 1 from light to dark 0 from dark to light	B,C		0	Kl. 1, 2, 3, 4
618	(RDR) Inverse rotation after seam end 1 yes 0 no	B,C		0	Kl. 1, 2, 3, 4

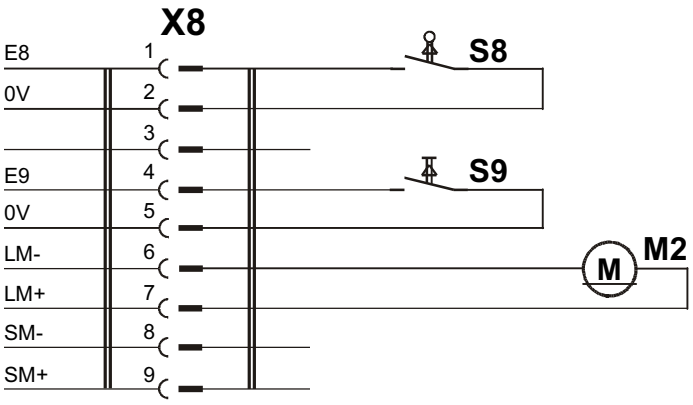
623	(RDR/VERZ) Delay in start-up time (ms) for inverse rotation	B,C	0000 - 2000 30	Kl. 1, 2, 3, 4
626	(CC) Thread end trimming (clean-cut)	B,C	0	Kl. 4
	1 yes		-	Kl. 1, 2, 3
	0 no			
627	(CC/STZA) Number of stitches for stitch condensation with clean-cut at seam start	B,C	0001 - 0002 1	Kl. 4
			-	Kl. 1, 2, 3
	1 1 stitch			
	0 2 stitches			
642	(PF/VERZ/TA) preser foot time from switch-on to voltage reduction (cycling)	B,C	0010 - 0100 100	Kl. 1, 2, 3, 4
643	(TUM/VERZ/TA) feed reverse time from switch-on to voltage reduction (cycling)	B,C	0010 - 0100 100	Kl. 1, 2, 3, 4
651	(PF) Presser foot with automatic descent on machine stop	B,C	1	Kl. 1, 2, 3, 4
	1 yes			
	0 no			
653	(PEIPO) Target stitch before sewing	B,C	0	Kl. 1, 2, 3, 4
	1 yes			
	0 no			
660	(FW) Bobbin thread monitoring	A,B,C	0000 - 0002 0	Kl. 1, 2, 3, 4
	0 without (= *II*)			
	1 via a sensor (= **I*)			
	2 by a stitch count			
668	(BLA/LINMOT/PF/WI) Thread wiper/thread clearer	B,C	0	Kl. 1, 2
				Kl. 3, 4
	1 yes			
	0 no			
700	(NAPO) Needle position 0 (reference position of the needle)	B,C	0000 - 0255 0	Kl. 1, 2, 3, 4 *
702	(NAPO) Needle position 1 (needle down)	B,C	0000 - 0255 90	Kl. 1, 2
			0000 - 0255 100	Kl. 3
			0000 - 0255 80	Kl. 4
703	(NAPO) Needle position 2 (thread take-up lever up)	B,C	0000 - 0255 226	Kl. 1, 2
			0000 - 0255 208	Kl. 3
			0000 - 0255 227	Kl. 4
705	(NAPO/SN/TA) Needle position 5 (end of trimming signal 1 (magnetic thread trimmer) / clock pulses start of the trimming signal 1)	B,C	0000 - 0255 200	Kl. 1, 2, 3, 4
706	(NAPO/SN) Needle position 6 (start trimming signal 2 (pneumatic thread trimmer))	B,C	0000 - 0255 136	Kl. 1, 2, 3
			0000 - 0255 127	Kl. 4
707	(NAPO/FSL/FANG) Needle position 9 (thread tension release or thread catcher start)	B,C	0000 - 0255 164	Kl. 1, 2, 3
			0000 - 0255 140	Kl. 4
710	(NAPO/NHOS) Needle position 3 (needle up)	B,C	0000 - 0255 227	Kl. 1, 2, 3, 4
715	(EINZ/WI) Duration (ms) of thread wiper	B,C	0000 - 2000 60	Kl. 1, 2, 4
			0000 - 2000 120	Kl. 3
718	(STBR) Timing of residual brake (0 = brake off)	B,C	0000 - 0100 0	Kl. 1, 2, 3, 4
719	(PF/TA) Timing output (lifting presser foot) (0 = 100% switched on)	B,C	0010 - 0060 40	Kl. 1, 2, 3, 4
721	(TUM/TA) Timing output (feed reverse) (0 = 100% switched on)	B,C	0010 - 0060 40	Kl. 1, 2, 3, 4
722	(DRZAN) Acceleration ramp	B,C	0001 - 0060 50	Kl. 1, 2, 3, 4
	1 gradual			
	50 steep			
723	(DRZAB) Brake ramp	B,C	0001 - 0060 40	Kl. 1, 2, 3, 4
	1 gradual			
	50 steep			
729	(STVERZ/PF) Start delay after lowering presser foot	B,C	0010 - 2000 120	Kl. 1, 2, 3, 4
730	(PF/VERZ) Lift delay for presser foot after seam end	B,C	0000 - 2000 50	Kl. 1, 2, 3, 4

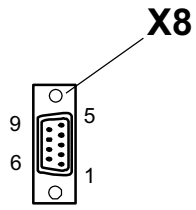
734	(SN/TA) Timing output (thread trimmer) (0=100% switched on)	B,C	0010 - 0040	10	Kl. 1, 2, 3, 4
746	(NAPO/ZZ) Needle position for change-over, zick-zack or three-fold-stitch	B,C	0000 - 0255	90	Kl. 1, 2, 3, 4
748	(NHOS/NPW/EST/RIV/RIUNT/NAPO) Input is 1 = needle up without trimming 2 = needle position change-over 3 = single stitch 4 = single stitch with reduced length 5 = backtack inversion 6 = backtack suppression 7 = change-over position 8 = puller lift switched off 9 = change-over needle position step by step, forward 10 = change-over needle position step by step, backward	B,C	0001 - 0007	5	Kl. 1, 2, 3, 4
751	(BLA/EINZ/FANG) Time (ms) for blowing after attaching / catcher	B,C	0000 - 2000	120 -	Kl. 4 Kl. 1, 2, 3
752	(EINZ/FANG/CC) Stop time (ms) for catcher off after attaching	B,C	0000 - 2000	150 -	Kl. 4 Kl. 1, 2, 3
760	(FW/SPFW/STZ/STZA) - Stitch count for the remnant thread after the bobbin thread monitor responds with direct bobbin thread monitoring - Multiplicator for the fixed value (200) for determining the start value of the stitch counter with indirect bobbin thread monitoring	A,B,C	0000 - 0250	5	Kl. 1, 2, 3, 4
761	(FSL/FZ/VERZ) Prolongation thread tension release / thread puller	B,C	0000 - 0080	0	Kl. 1, 2, 3, 4
770	(PF/VERZ) Lifting delay of presser foot at threadle- position „-1“	B,C	0010 - 0250	80	Kl. 1, 2, 3, 4
771	(STOPZ) Stop time (ms) after start chain	B,C	0001 - 0015	10	Kl. 1, 2, 3, 4
772	(STOPZ) Stop time (ms) after front stitch	B,C	0001 - 0015	7	Kl. 1, 2, 3, 4
775	(ZRIE/STOPZ) Stop time (ms) with stitch in stitch backtack (decorative backtack)	B,C	0010 - 1000	100	Kl. 1, 2, 3, 4
786	(CC/FANG) Clean-cut: cancel position for thread catcher	B,C	0000 - 0255	220 -	Kl. 4 Kl. 1, 2, 3
789	(PEIPO) Needle position 10 (target stitch)	B,C	0000 - 0255	248	Kl. 1, 2, 3, 4
797	(HWT) Hardware test 1 yes 0 no	C		0	Kl. 1, 2, 3, 4
798	(EBC) Programming level C 1 yes 0 no	A,B,C	0000 - 0020	1	Kl. 1, 2, 3, 4
799	(MAKL) Machine class which has been selected	C	0001 - 0004 0001 - 0004 0001 - 0004 0001 - 0004	1 2 3 4	Kl. 1 * Kl. 2 Kl. 3 Kl. 4
800	(DRR) Direction of motor rotation viewed from belt pulley 1 left-hand rotation 0 right-hand rotation	C	0000 - 0001 0000 - 0001	0 1	Kl. 1, 2 * Kl. 3, 4
801	(RDR) Reverse rotation angle after seam end	B,C	0010 - 0212	32	Kl. 1, 2, 3, 4
880	(REG) Starting current max. [A]	C	0001 - 0010	8	Kl. 1, 2, 3, 4
884	(REG) Proportional amplification of the speed control (in general)	B,C	0003 - 0024	10	Kl. 1, 2, 3, 4
885	(REG) Integral amplification of the speed control	C	0010 - 0080	50	Kl. 1, 2, 3, 4
886	(REG) Proportional amplification of the order controllers	C	0001 - 0015	8	Kl. 1, 2, 3, 4
887	(REG) Differential amplification of the order controllers	C	0001 - 0015	8	Kl. 1, 2, 3, 4

889	(EINZ/REG) Time required for order controlling (0 = always)	C	0000 - 2500 400 0000 - 2500 200	Kl. 1, 2, 3 Kl. 4
890	(REG) Proportional amplification of the superior order controllers for the residual brake	C	0001 - 0025 15	Kl. 1, 2, 3, 4
897	(MOT) MINI motor version 1 long 0 short	C	0000 - 0001 0	Kl. 1, 2, 3, 4 *
898	(REG) Current limiting for the motor 1 = 15A 0 = 10A	C	0	Kl. 1, 2, 3, 4
900	(REG) Additional P-Amplification of the speed control	B,C	0001 - 0024 14	Kl. 1, 2, 3, 4
901	(DRZ/SN) Trimming release speed	B,C	0030 - 0500 300	Kl. 1, 2, 3, 4
933	(ANZ) Display change-over 1 diagnosis 0 normal display	C	0	Kl. 1, 2, 3, 4
939	(VERZ/TUM) Rate time (premature change-over) for the transport changer when switching on	B,C	0010 - 0200 30	Kl. 1, 2, 3, 4
940	(FANG/CC) time until catch advances (for „clean cut“)	B,C	0000 - 2000 150 -	Kl. 4 Kl. 1, 2, 3
969	(VERZ/TUM) Switching off angel for presserfoot during threadwiping at seam start	B,C	0000 - 0255 100	Kl. 1, 2, 3, 4
985	(FK) Switch on angle for thread clamp	B,C	0000 - 0255 67	Kl. 1, 2, 3, 4
986	(FK) Switch off angle for thread clamp	B,C	0000 - 0255 206	Kl. 1, 2, 3, 4
989	(FK/FZ/NA) Thread clamp at seam start 0 = A3 is thread wiper 1 = A3 is thread puller 2 = Presserfoot is lifting with thread puller	B,C	0000 - 0002 1 0000 - 0002 0	Kl. 1, 2 Kl. 3, 4
1000	(SMOT) Count of stepping motors	C	0000 - 0001 1	Kl. 1, 2, 3, 4
1001	(SMOT) Starting angle stepper	B,C	0000 - 0255 22 0000 - 0255 170 0000 - 0255 144 0000 - 0255 100	Kl. 1 Kl. 2 Kl. 3 Kl. 4
1003	(SMOT) Transport roller radius	C	0005 - 0050 15	Kl. 1, 2, 3, 4
1100	(SMOT) Incremental motor 1 operating mode (puller, differential adjustment, etc.) 1 = Puller intermittent with transport at seam end 2 = Differential feed 3 = Electric shaft 4 = Electric shaft with transport at seam end	C	0000 - 0002 1	Kl. 1, 2, 3, 4
1101	(SMOT) Rotational direction SM1 0 = anticlockwise 1 = clockwise	B,C	0	Kl. 1, 2, 3, 4 *
1102	(SMOT) SM1 increment mode 1 = Full increment 2 = Half-increment 3 = Quarter-increment 4 = Eighth-increment	B,C	0001 - 0004 3	Kl. 1, 2, 3, 4
1103	(SMOT) SM1 % maximum current	C	0001 - 0100 80	Kl. 1, 2, 3, 4
1104	(SMOT) SM1 % power reduction	C	0000 - 0050 30	Kl. 1, 2, 3, 4
1105	(SMOT) SM1 start/stop time (time for 1 increment at start / stop rpm)	C	0010 - 1000 300	Kl. 1, 2, 3, 4
1106	(SMOT) Roof time (time for 1 increment in roof) SM1	C	0010 - 4000 843 0010 - 4000 32	Kl. 1, 2, 3 Kl. 4
1107	(SMOT) SM1 acceleration (% increase from start / stop up to roof) SM1	C	0001 - 0050 28	Kl. 1, 2, 3, 4
1108	(SMOT) SM1 braking increments (number of braking increments)	C	0001 - 0050 5	Kl. 1, 2, 3, 4
1160	(SMOT) Pre tension section SM	A,B,C	0000 - 0099 20	Kl. 1, 2, 3, 4

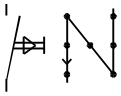
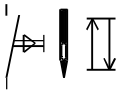
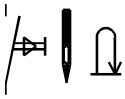
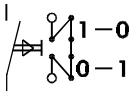
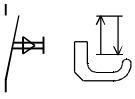
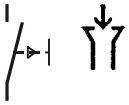
12. Electrical Connections Diagram Q350ED



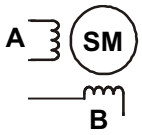
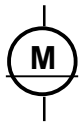
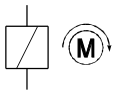
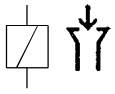
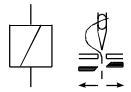
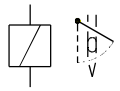
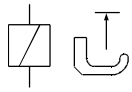
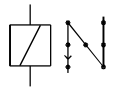




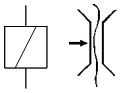
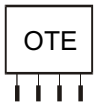
Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
Signification des aimants resp. solenoides et touches / Significação dos imaõs e/ou as solenoidas e teclas
Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

S1 	Transportumstellung von Hand / manual feed reverse / renversement de marche manuel / mudança do transporte manual / commutazione trasporto a mano / inversión de transporte manual / handmatige transportomschakeling
S2  <616> = I	Nadelpositionswechsel / needle position change-over / changement de position d´aiguille / troça de posição da agulha / cambio di posizione dell´ago / cambio de posición de aguja / naaldpositie-verwisseling
S2  <616> = II	Nadel hoch ohne Schneiden / needle up without thread trimming / aiguille en haut sans coupe / agulha para cima sem corte de linhas / ago su senza taglio / aguja arriba sin corte / naald omhoog zonder snijden
S3  <617> = I	Einzelstich / single stitch / point unique / ponto individual / punto singolo / puntada individual / enkele steek
S3  <617> = II	Nachfolgende Riegelfunktion invertieren / invert subsequent backtack function / inverser la prochaine fonction de bridage / inverter o próximo remate / invertire la funzione d'affr. successiva / invertir la próxima función de remate / inverteren op elkaar volgende hechtfunctie
S4  <356> = I	Presserfuß / presser foot / pied presseur / calcador / alzapiedino / prensatelas / drukvoet
S4  <356> = II	Saugen / vacuuming / aspiration / aspirar / aspirare / aspirar / zuigen
S6 	STOP/Anlaufsperre / STOP/Safety switch no run / STOP/Verrouillage de remise en marche / STOP/Bloqueio de arranque / STOP/Blocco avviamento / STOP/Bloqueo de repuesta en marcha / STOP/Startblokkering
S8  <799> = 1	Knieschalter für Presserfuß heben / knee switch for presser foot up

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
Signification des aimants resp. solenoides et touches / Significação dos imaõs e/ou as solenoidas e teclas
Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

S9  <799> = 2	Knieschalter für Puller heben / knee switch for puller up
M1 	Schrittmotor 1 / stepping motor 1 / moteur pas á pas 1 / motor de passo 1 / motore step 1 motor de pasos 1 / stappen motor 1
M2 	Pullerdruck / puller pressure
Y1 I max 4 A*  <356> = I	Motorlauf / motor runs / moteur en marche / motor em movimento / motore in moto / motor en marcha / loop van de machine
Y1 I max 4 A*  <356> = II	Absaugung / vacuum / aspiration / aspirar / aspirazione / aspiración / zuigen
Y2 I max 4 A* 	Fadenschneiden / thread trimmer / coupe-fil / corte de linhas / rasafilo / cortahilos / draadsnijder
Y3 I max 4 A* 	Fadenwischer / thread wiper / écarteur de fil / retira-linhas / scartafilo / retirahilos / draadwisser
Y4 I max 8 A* 	Presserfuß heben / lifting presser foot / relevage du pied presseur / levantar do calcador / sollevamento del alzapiedino / elevación de prensatelas / drukvoet optillen
Y5 I max 8 A* 	Transportumsteller / feed reverse / renversement de marche / mudança do transporte / commutazione trasporto / inversión de transporte / transportomschakeling
Y6 I max 4 A*  <776> = 1	Kantenschneider / edge trimmer coupe de bord / corte cantos rasa bordi / corta bordes zoomsnijder
Y6 I max 4 A*  <776> = 2	Stapler / stacker / empileur / empilhadeira / impilatore / apiladora / hefapparaat

Bedeutung der Magnete bzw. Magnetventile, Taster / Meaning of magnets and/or solenoids and keys
Signification des aimants resp. solenoides et touches / Significação dos imaõs e/ou as solenoidas e teclas
Significato dei magneti, delle valvole magnetiche e dei tasti / Significación de los imanes y/o los solenoides
y pulsadores / Betekenis van de magneten resp. magneetkleppen, toetsen

Y8 I max 4 A * 	Fadenspannungslösen / thread tension release / détendeur de fil / soltar tensão da linha / sbloccaggio tendifilo / detensión del hilo / verbreken van de draadspanning
A10 	Signal Unterfadenwächter / signal bobbin thread sensor
[A2]	Tastergehäuse an der Nähmaschine / key case at the sewing machine
[A3] 	Oberteilerkennung / sewing machine identify unit

* Die Summe der Lastströme aller gleichzeitig eingeschalteten Stellglieder (Magnete, Magnetventile) darf den Wert von 4A nicht überschreiten (siehe hierzu Kapitel 2. Technische Daten).
* The total of load currents of all servos activated simultaneously (solenoids, solenoid valves) is not allowed to exceed 4 amps (see also section 2. Technical Specifications).
* Le total des courants de charge de tous les vérins (aimants, électro-vannes) activés simultanément ne doit pas dépasser 4 A (voir aussi le chapitre 2. "caractéristiques techniques").
* A soma das correntes sob carga de todos os actuadores ligados ao mesmo tempo (ímans, solenóides) não pode ultrapassar o valor de 4A (ver também capítulo 2. Dados Técnicos).
* La somma delle correnti di carico di tutti gli attuatori inseriti contemporaneamente (magneti, elettrovalvole) non deve essere superiore a 4 A (vedere il capitolo 2. Dati Tecnici).
* La suma de las corrientes bajo carga de todos los elementos de todos los componentes de regulación conectados simultáneamente (imanes, válvula magnética) no podrá sobrepasar el valor de 4A (véase también el capítulo 2. de datos técnicos).
* De belastingsstroom van alle tegelijkertijd ingeschakelde bedieningsschakels (magneten, magneetventielen) mag in totaal niet meer dan 4 A bedragen (zie hiervoor hoofdstuk 2. Technische gegevens).

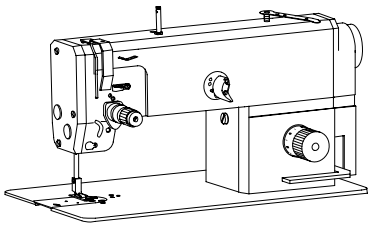
PFAFF

PFAFF Industrie Maschinen AG

Postfach 3020
D-67653 Kaiserslautern

Königstr. 154
D-67655 Kaiserslautern

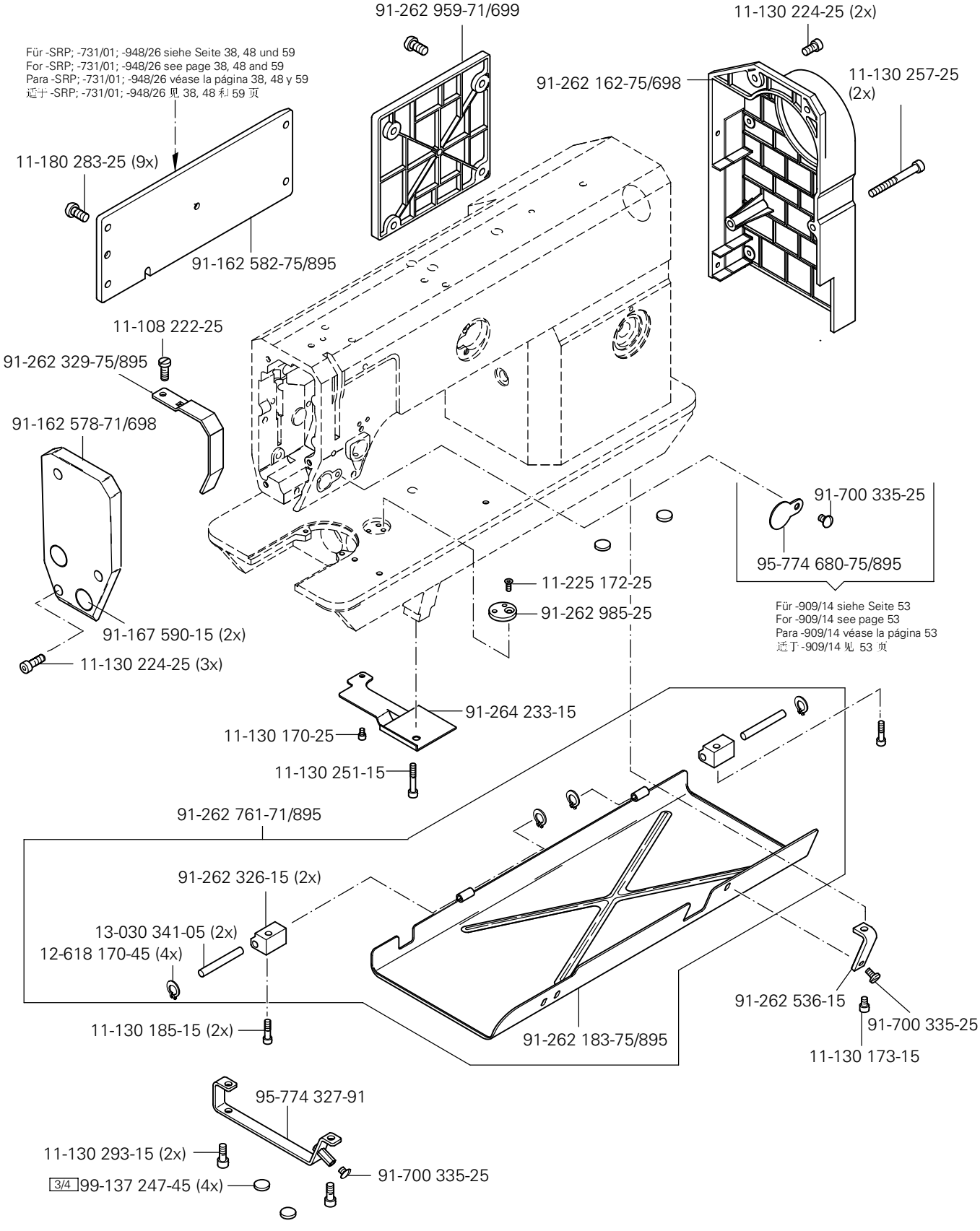
Telefon: (0631) 200-0
Telefax: (0631) 17202
E-Mail: info@pfaff-industrial.com

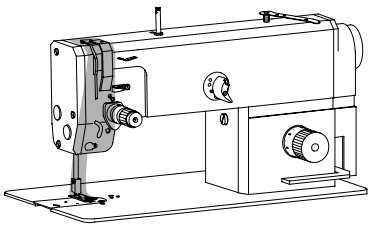


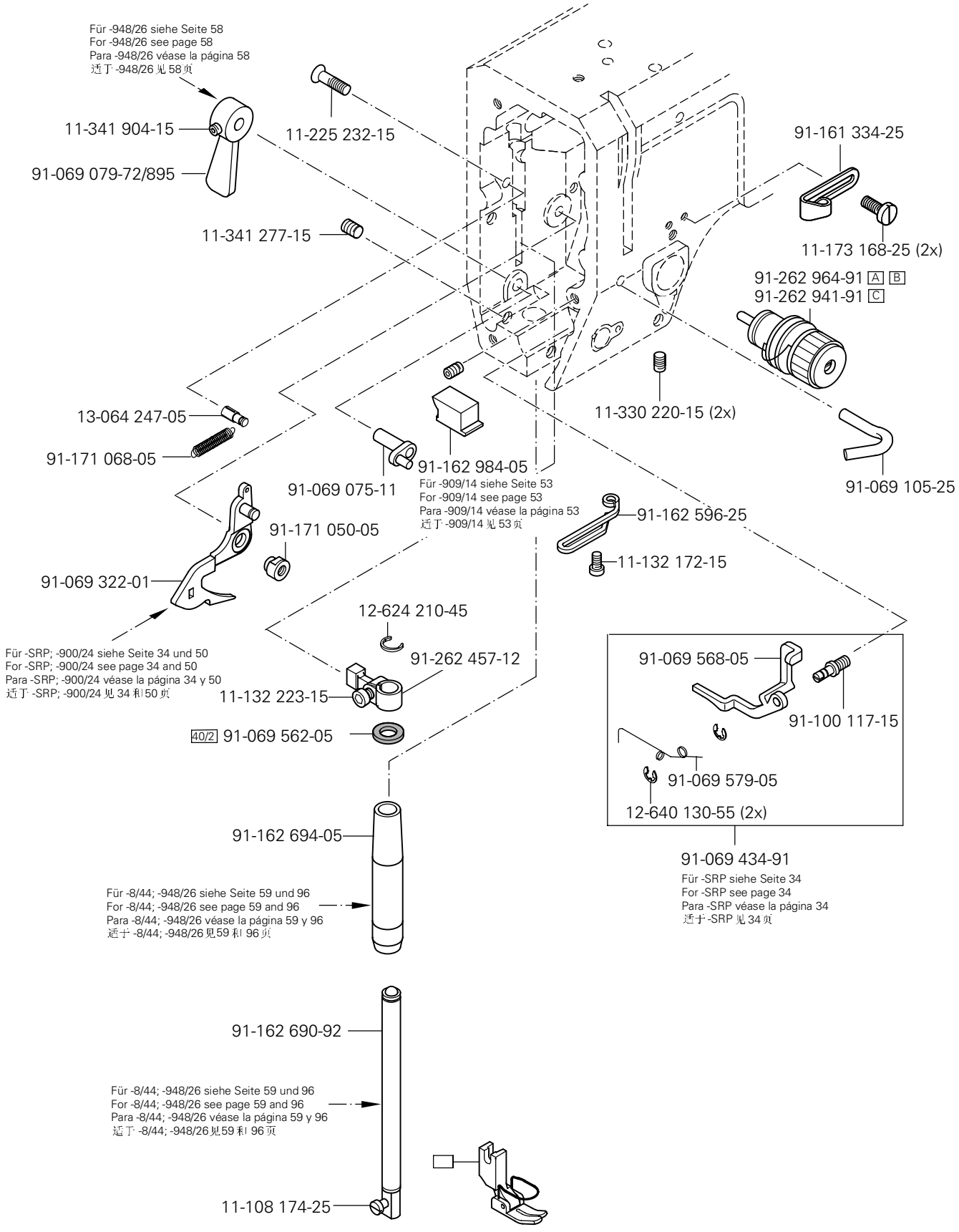
Gehäuseteile
Housing sections
Piezas del cárter
机身零件

PFAFF 1181;1181- D
PFAFF 1183;1183- D

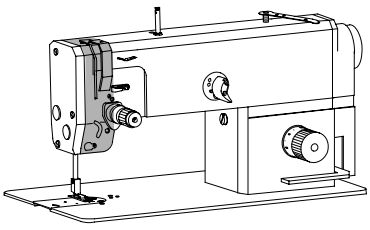
3.01

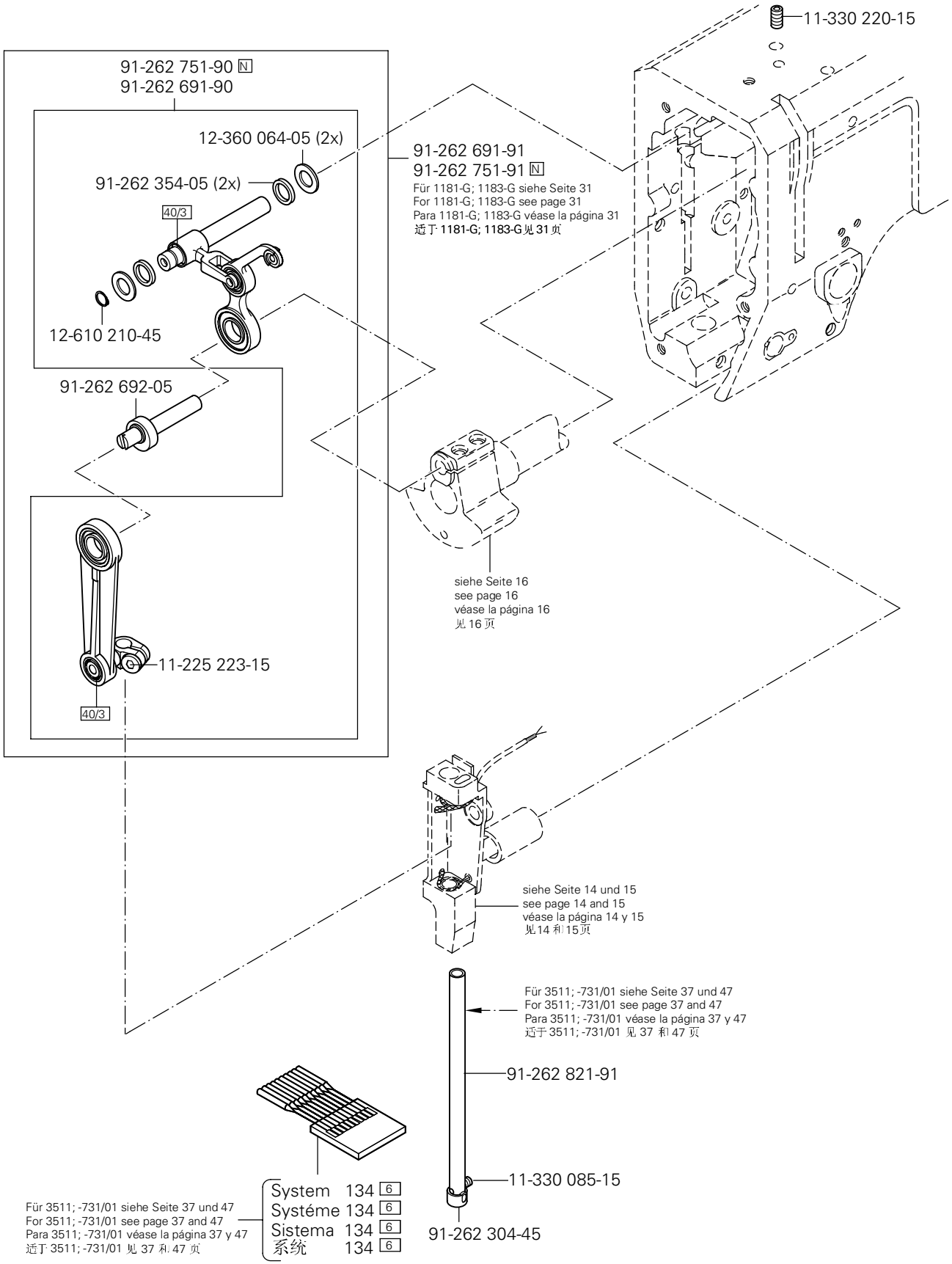


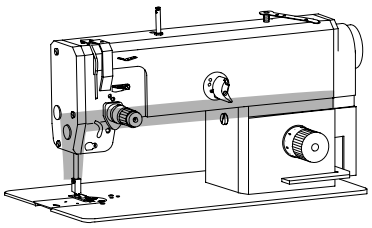


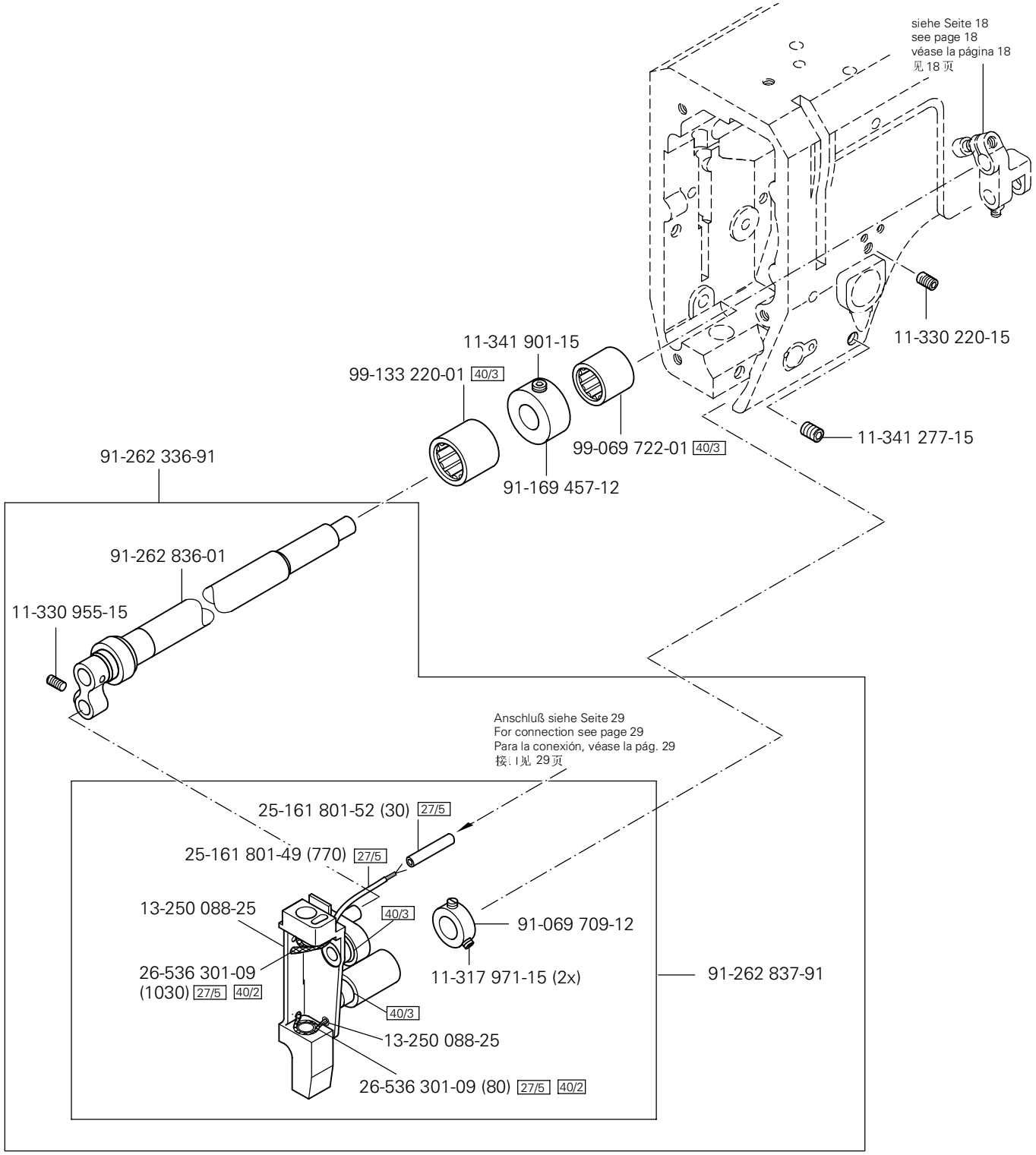


siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

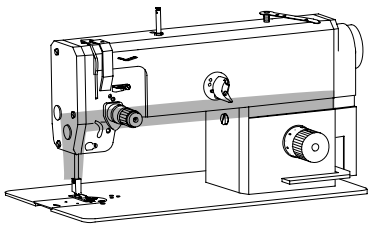


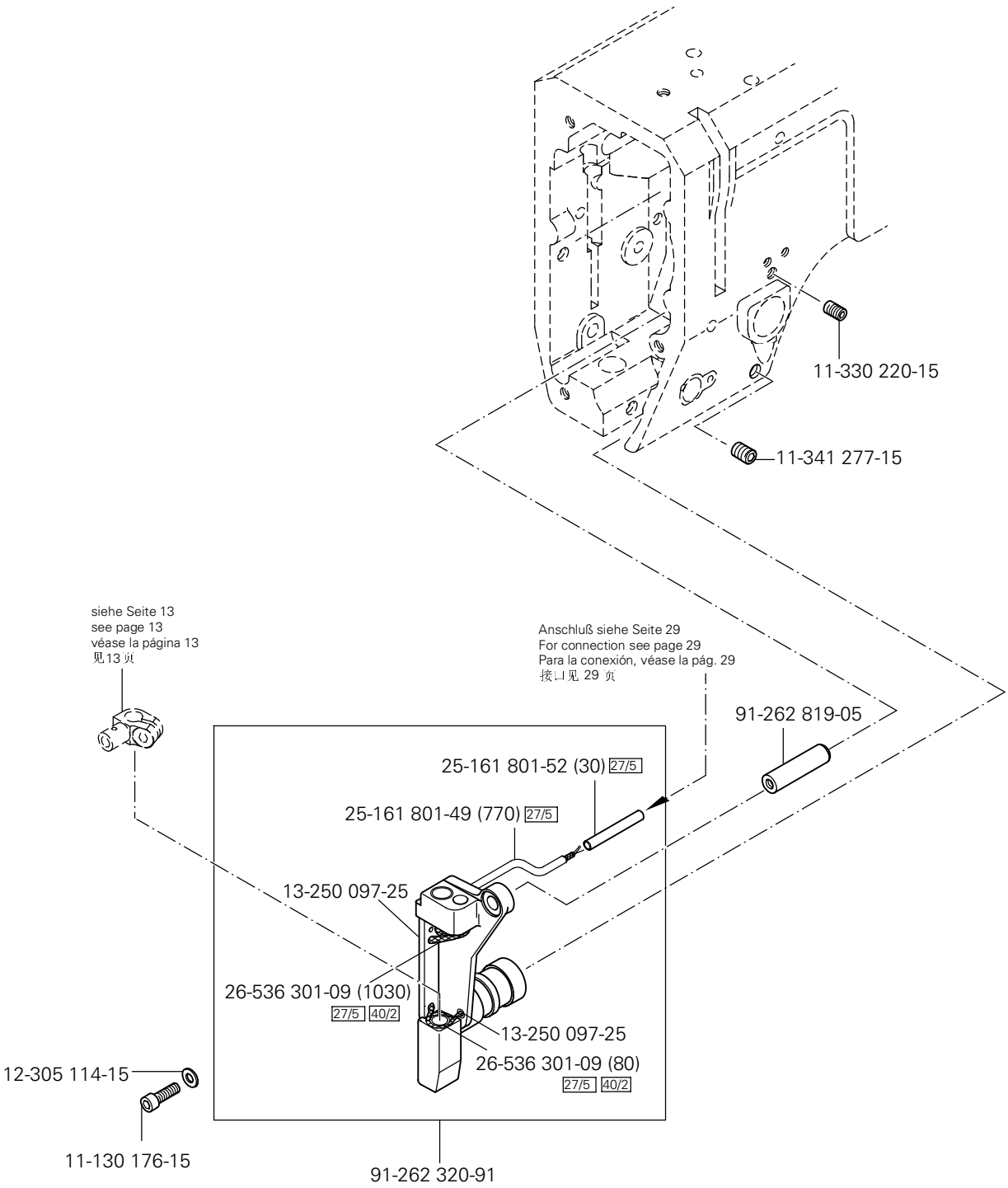

11-330 220-15
91-262 751-90 N
91-262 691-90
12-360 064-05 (2x)
91-262 354-05 (2x)
40/3
12-610 210-45
91-262 692-05
11-225 223-15
40/3
91-262 691-91
91-262 751-91 N
Für 1181-G; 1183-G siehe Seite 31
For 1181-G; 1183-G see page 31
Para 1181-G; 1183-G véase la página 31
适于 1181-G; 1183-G 见 31 页
siehe Seite 16
see page 16
véase la página 16
见 16 页
siehe Seite 14 und 15
see page 14 and 15
véase la página 14 y 15
见 14 和 15 页
Für 3511; -731/01 siehe Seite 37 und 47
For 3511; -731/01 see page 37 and 47
Para 3511; -731/01 véase la página 37 y 47
适于 3511; -731/01 见 37 和 47 页
91-262 821-91
11-330 085-15
91-262 304-45
Für 3511; -731/01 siehe Seite 37 und 47
For 3511; -731/01 see page 37 and 47
Para 3511; -731/01 véase la página 37 y 47
适于 3511; -731/01 见 37 和 47 页
System 134 6
Systéme 134 6
Sistema 134 6
系统 134 6

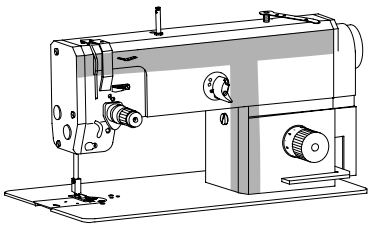


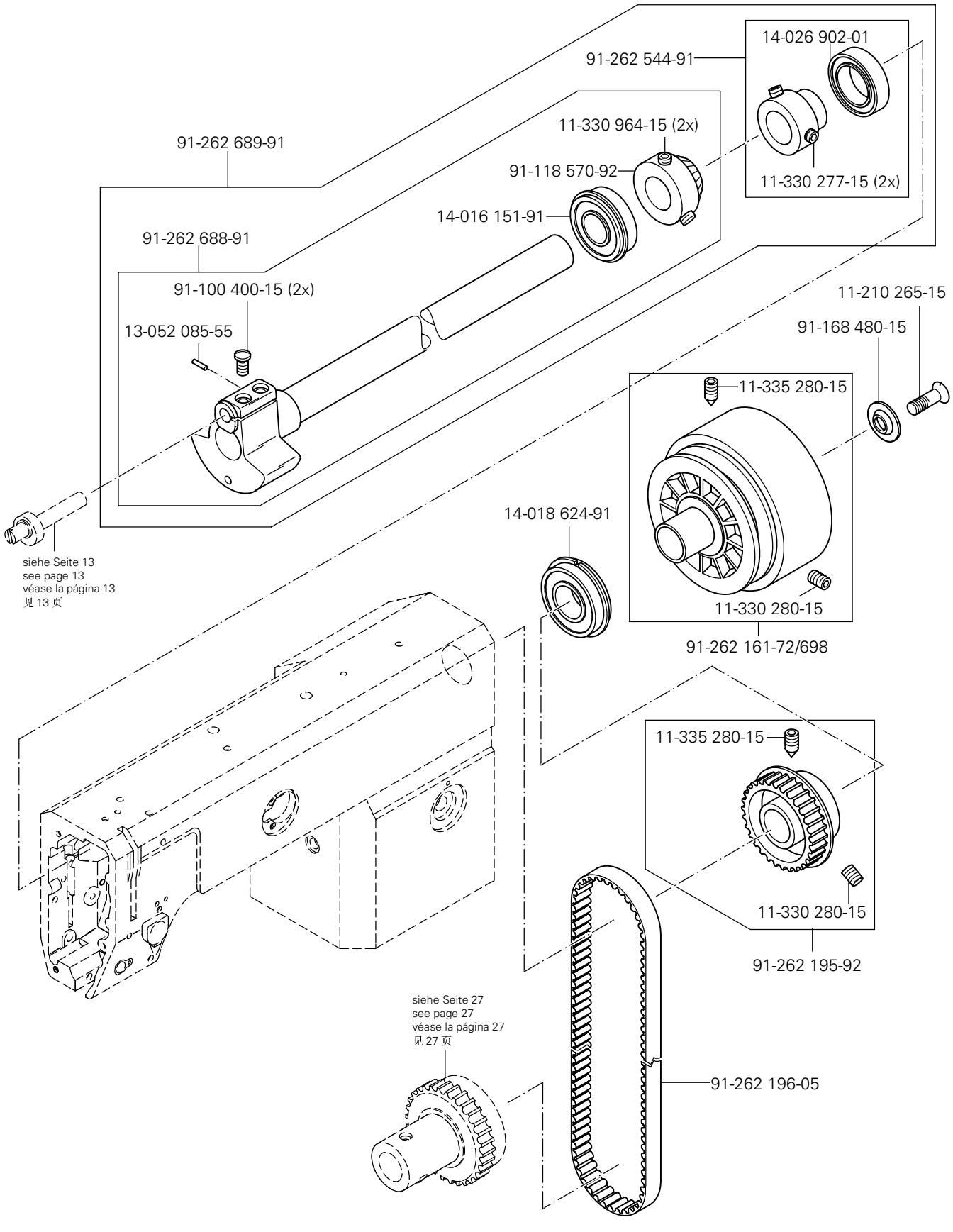


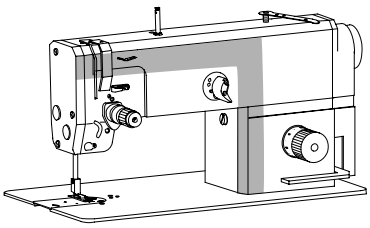
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明




11-330 220-15
11-341 277-15
siehe Seite 13
see page 13
véase la página 13
见13 页
Anschluß siehe Seite 29
For connection see page 29
Para la conexión, véase la pág. 29
接口见 29 页
91-262 819-05
25-161 801-52 (30) 27/5
25-161 801-49 (770) 27/5
13-250 097-25
26-536 301-09 (1030)
27/5 40/2
13-250 097-25
26-536 301-09 (80)
27/5 40/2
12-305 114-15
11-130 176-15
91-262 320-91



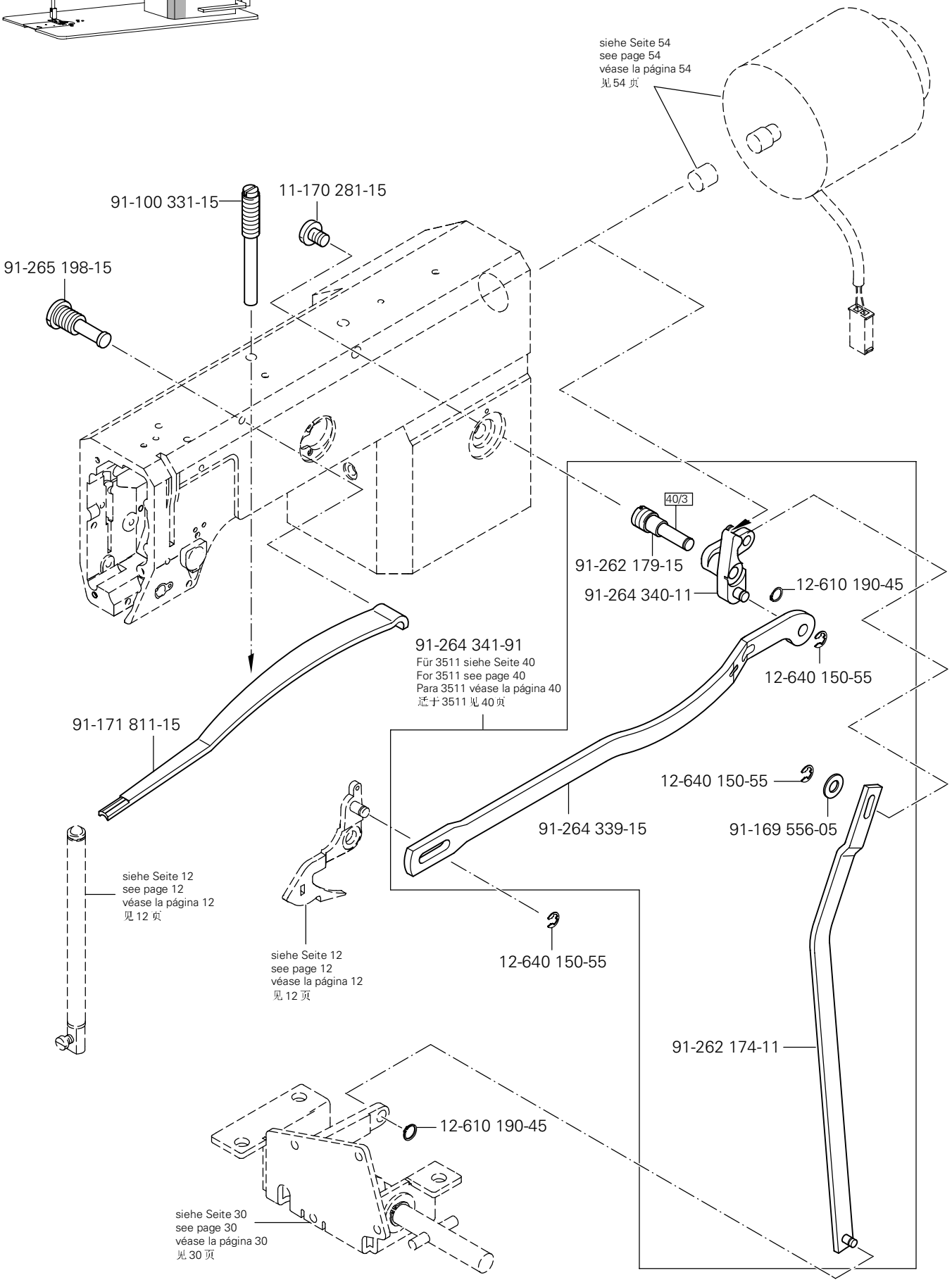

14-026 902-01
91-262 544-91
11-330 964-15 (2x)
91-262 689-91
91-118 570-92
11-330 277-15 (2x)
14-016 151-91
91-262 688-91
91-100 400-15 (2x)
11-210 265-15
13-052 085-55
91-168 480-15
11-335 280-15
14-018 624-91
siehe Seite 13
see page 13
véase la página 13
见 13 页
11-330 280-15
91-262 161-72/698
11-335 280-15
11-330 280-15
91-262 195-92
siehe Seite 27
see page 27
véase la página 27
见 27 页
91-262 196-05

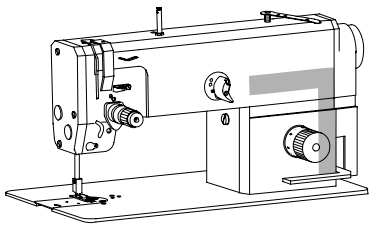


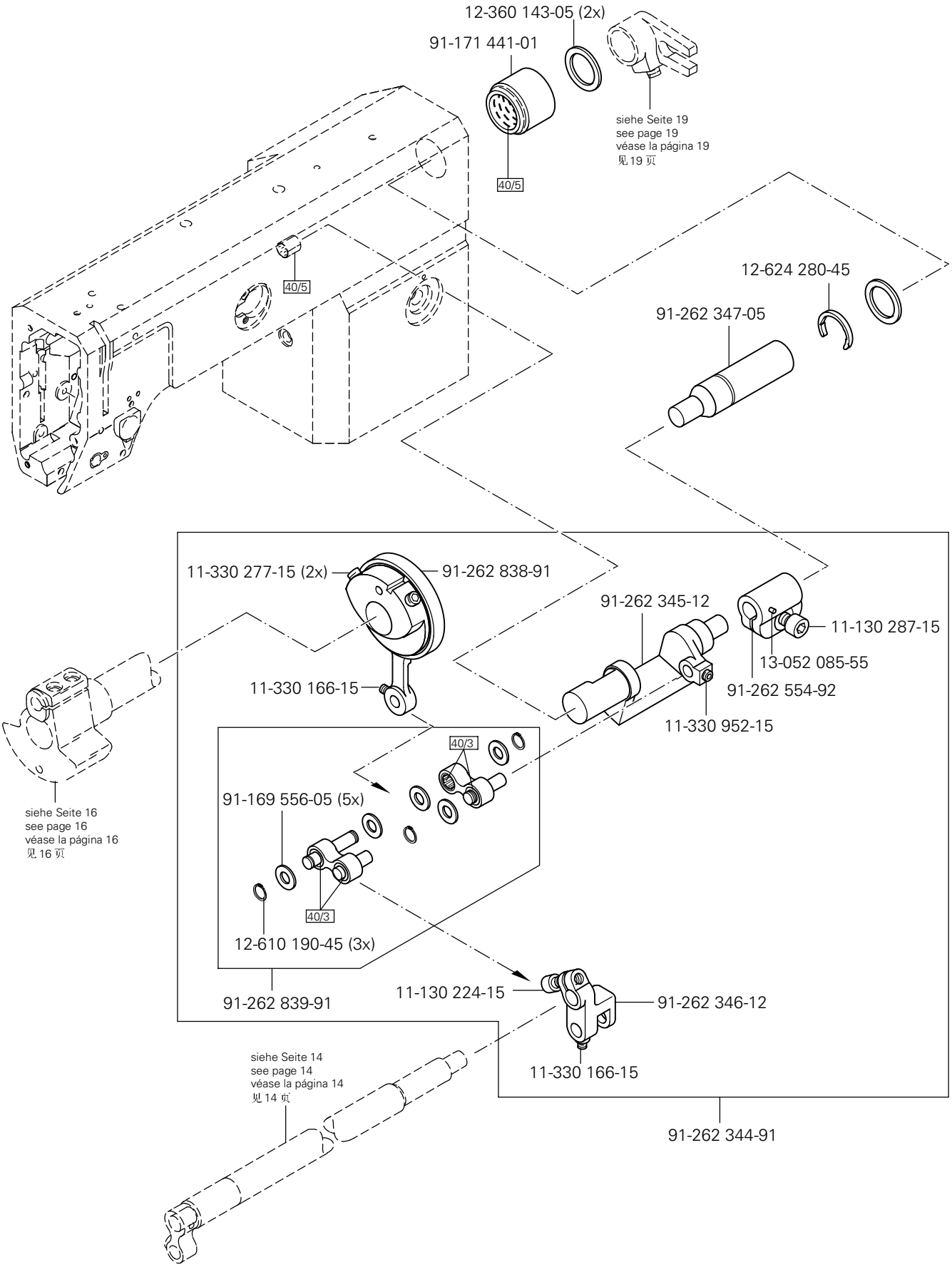
Armteile
Arm parts
Piezas del brazo
机臂零件

PFAFF 1181;1181- D
PFAFF 1183;1183- D

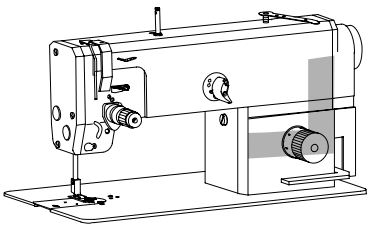
3.03

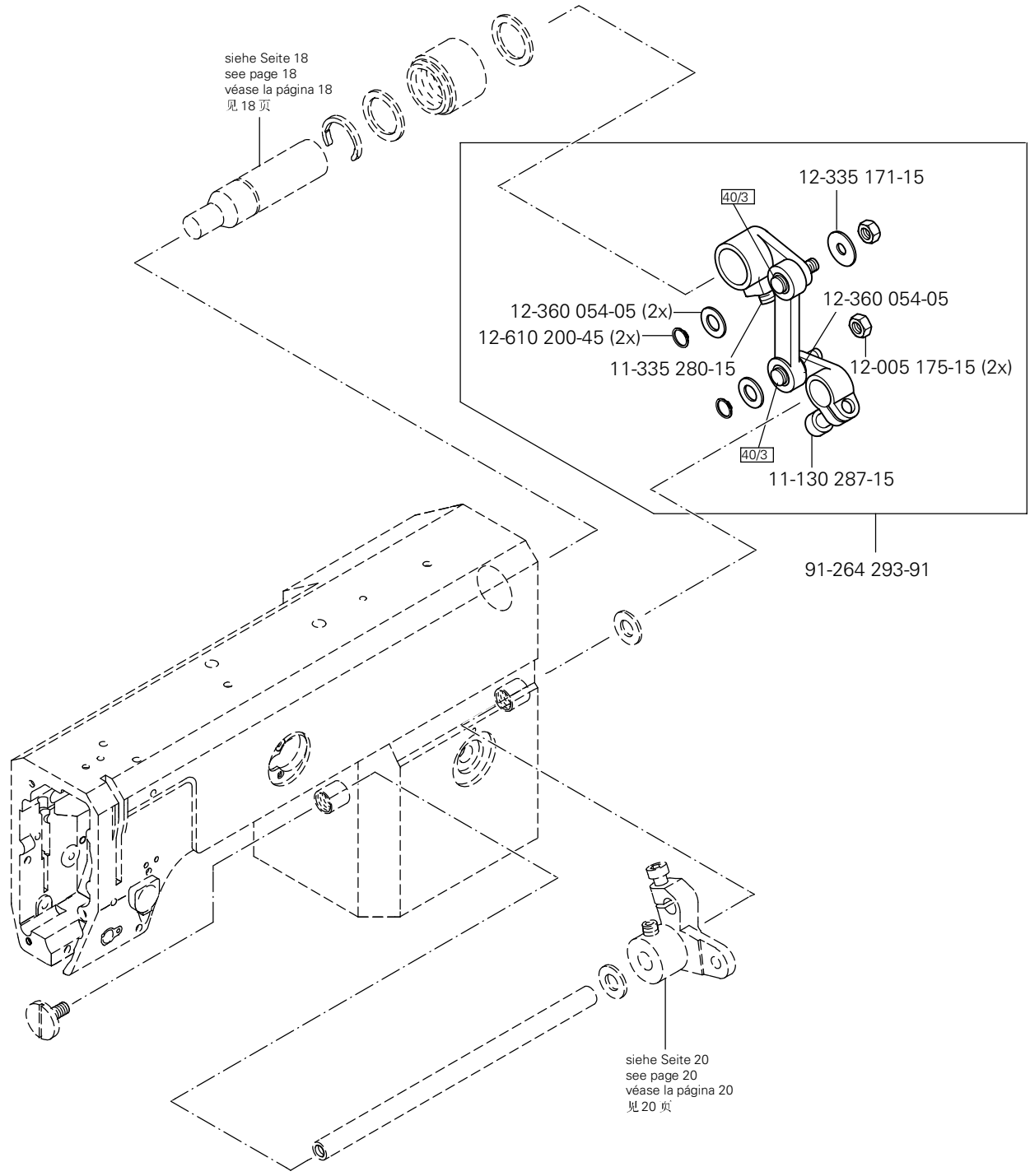


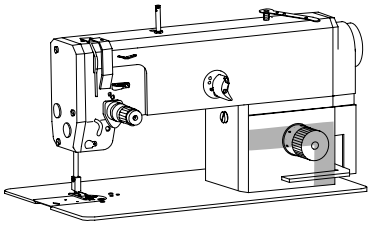


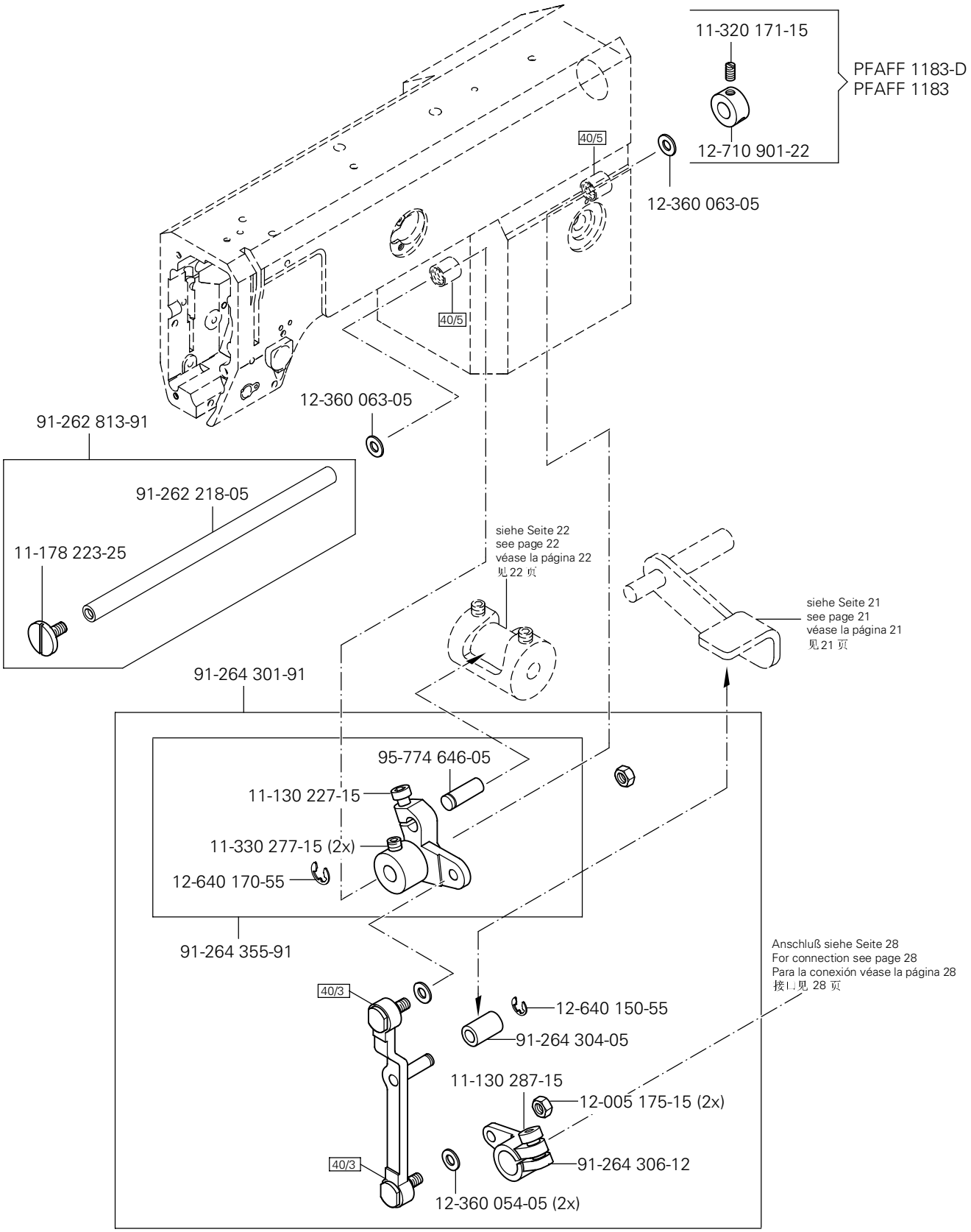


siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明




siehe Seite 18
see page 18
véase la página 18
见 18 页
12-335 171-15
40/3
12-360 054-05 (2x)
12-610 200-45 (2x)
12-360 054-05
11-335 280-15
12-005 175-15 (2x)
40/3
11-130 287-15
91-264 293-91
siehe Seite 20
see page 20
véase la página 20
见 20 页

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PFAFF 1183-D
PFAFF 1183
12-710 901-22
40/5
12-360 063-05
40/5
12-360 063-05
91-262 813-91
91-262 218-05
11-178 223-25
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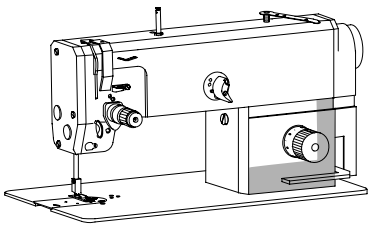
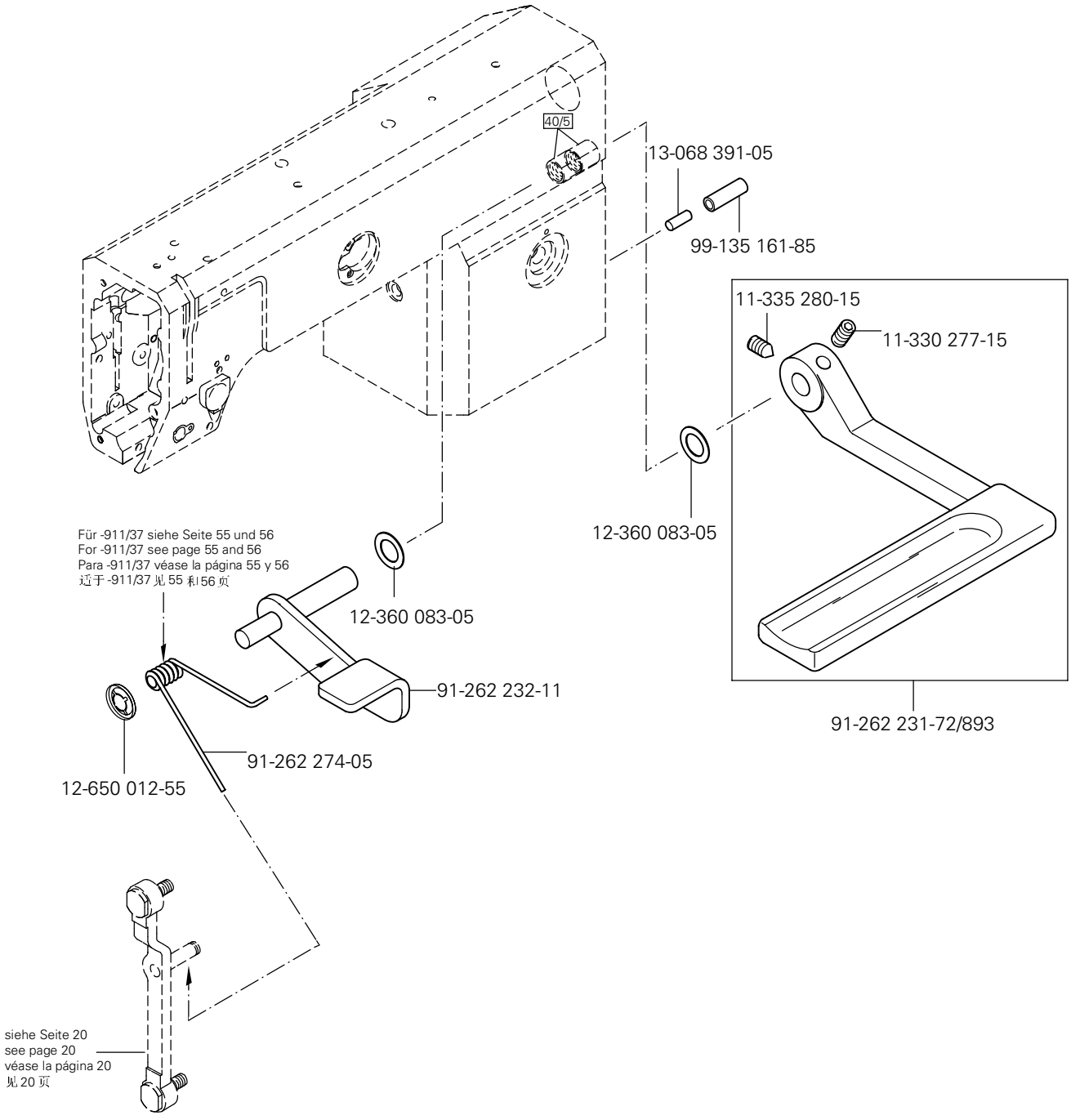
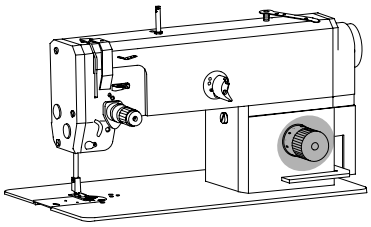
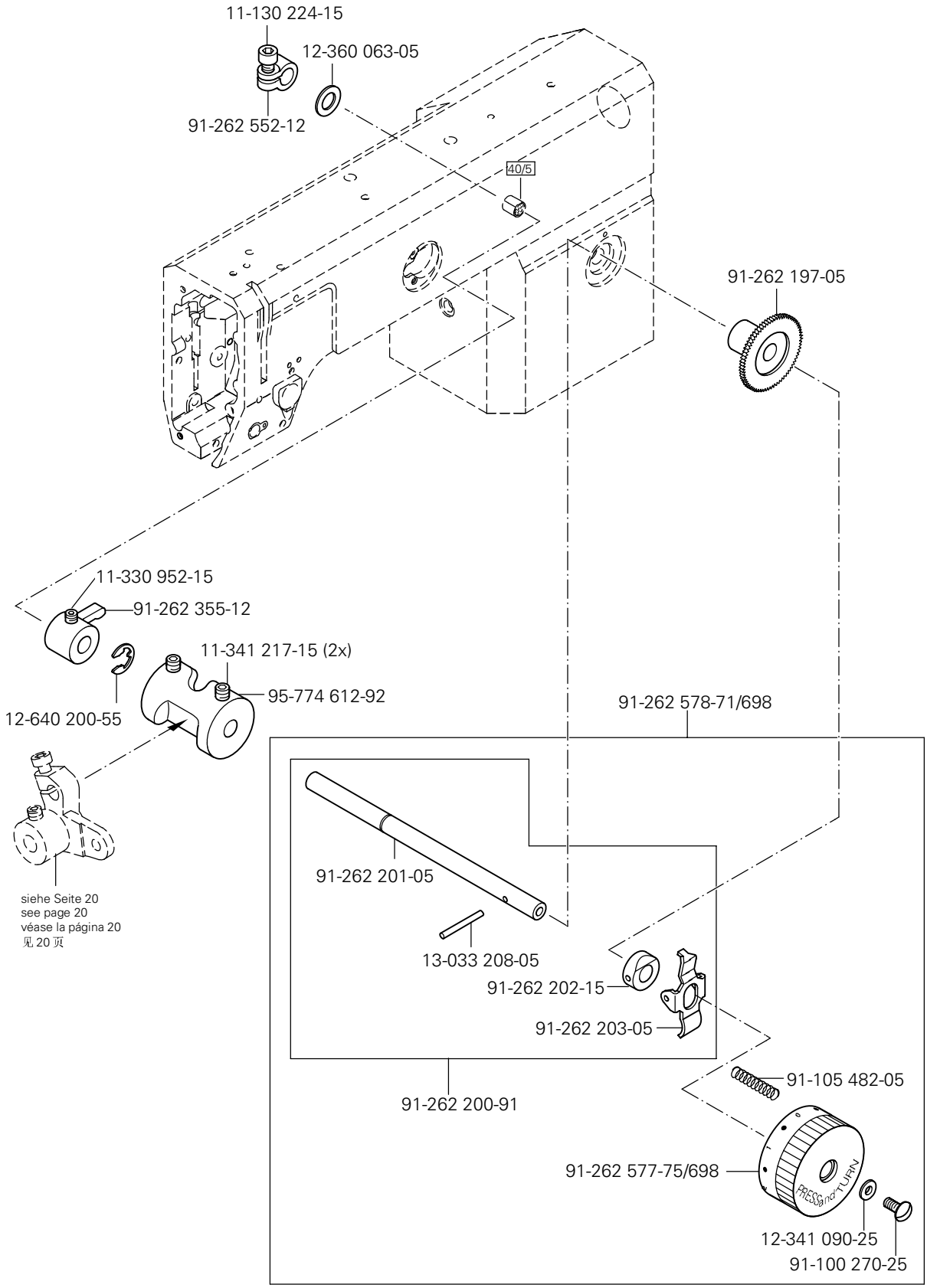
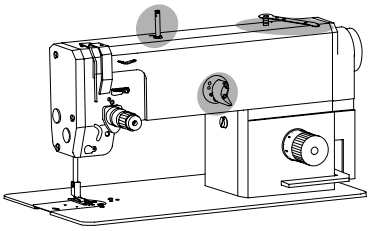
siehe Seite 21
see page 21
véase la página 21
见21 页
91-264 301-91
95-774 646-05
11-130 227-15
11-330 277-15 (2x)
12-640 170-55
91-264 355-91
Anschluß siehe Seite 28
For connection see page 28
Para la conexión véase la página 28
接I.,见 28 页
40/3
12-640 150-55
91-264 304-05
11-130 287-15
12-005 175-15 (2x)
40/3
91-264 306-12
12-360 054-05 (2x)

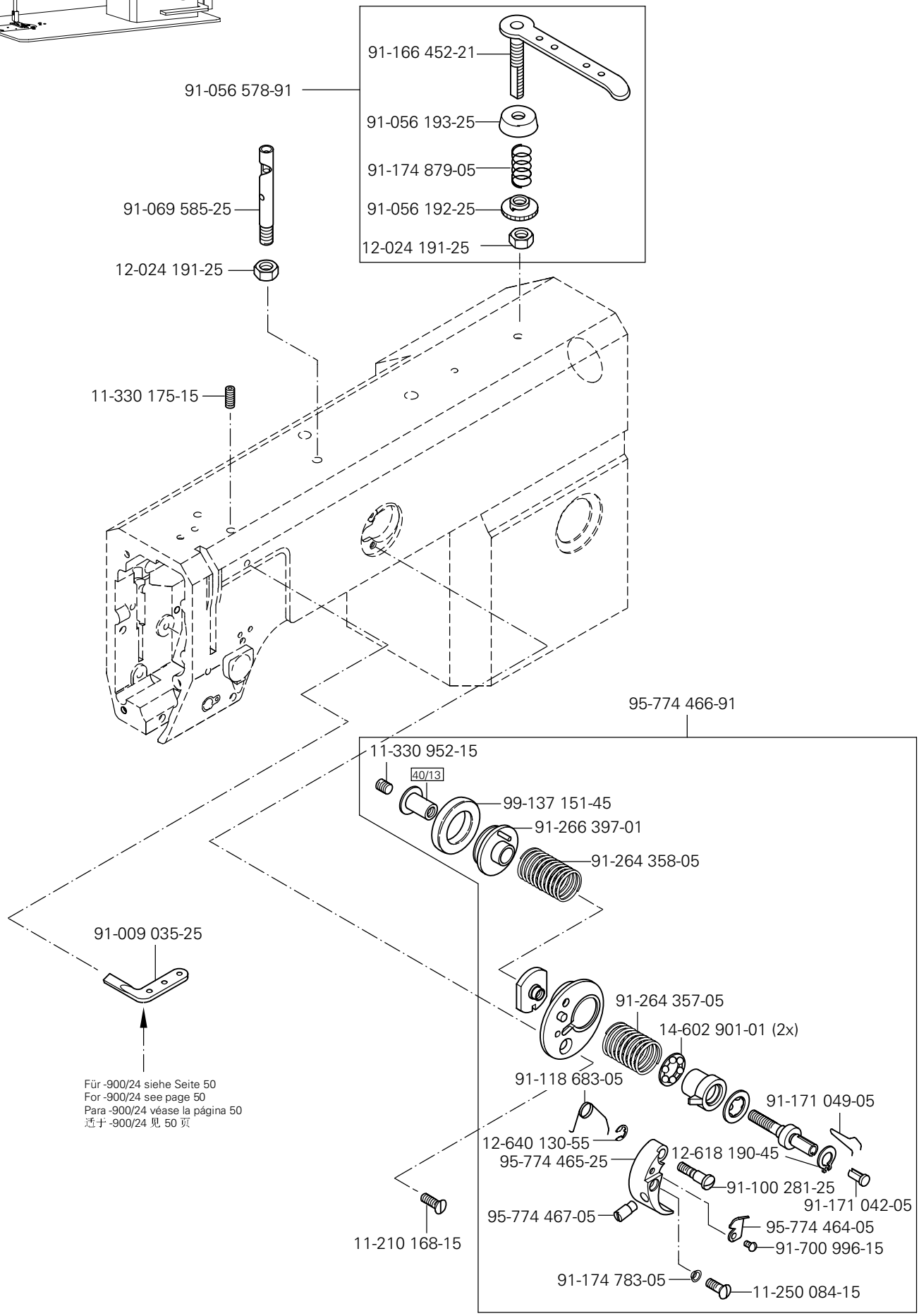


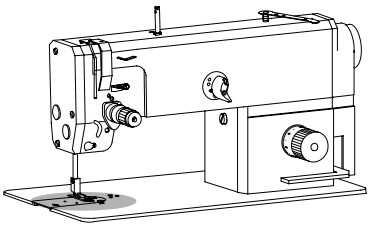

40/5
13-068 391-05
99-135 161-85
11-335 280-15
11-330 277-15
12-360 083-05
91-262 231-72/893
Für -911/37 siehe Seite 55 und 56
For -911/37 see page 55 and 56
Para -911/37 véase la página 55 y 56
适于 -911/37 见 55 和 56 页
12-360 083-05
91-262 232-11
91-262 274-05
12-650 012-55
siehe Seite 20
see page 20
véase la página 20
见 20 页

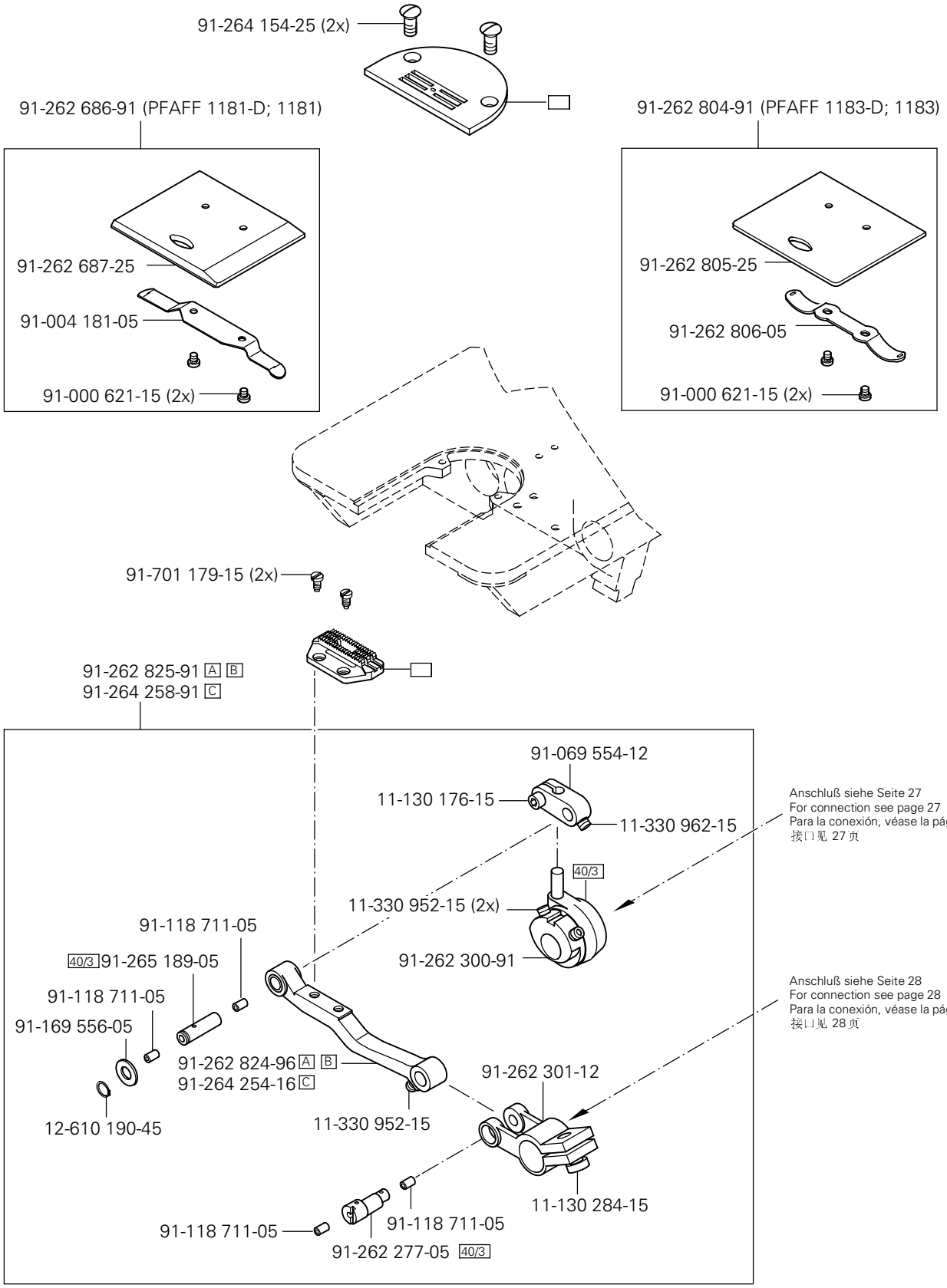



11-130 224-15
12-360 063-05
91-262 552-12
40/5
91-262 197-05
11-330 952-15
91-262 355-12
11-341 217-15 (2x)
95-774 612-92
12-640 200-55
91-262 578-71/698
91-262 201-05
13-033 208-05
91-262 202-15
91-262 203-05
91-262 200-91
91-105 482-05
91-262 577-75/698
12-341 090-25
91-100 270-25
siehe Seite 20
see page 20
véase la página 20
见 20 页

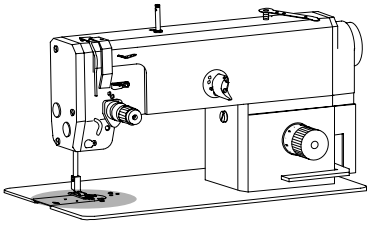


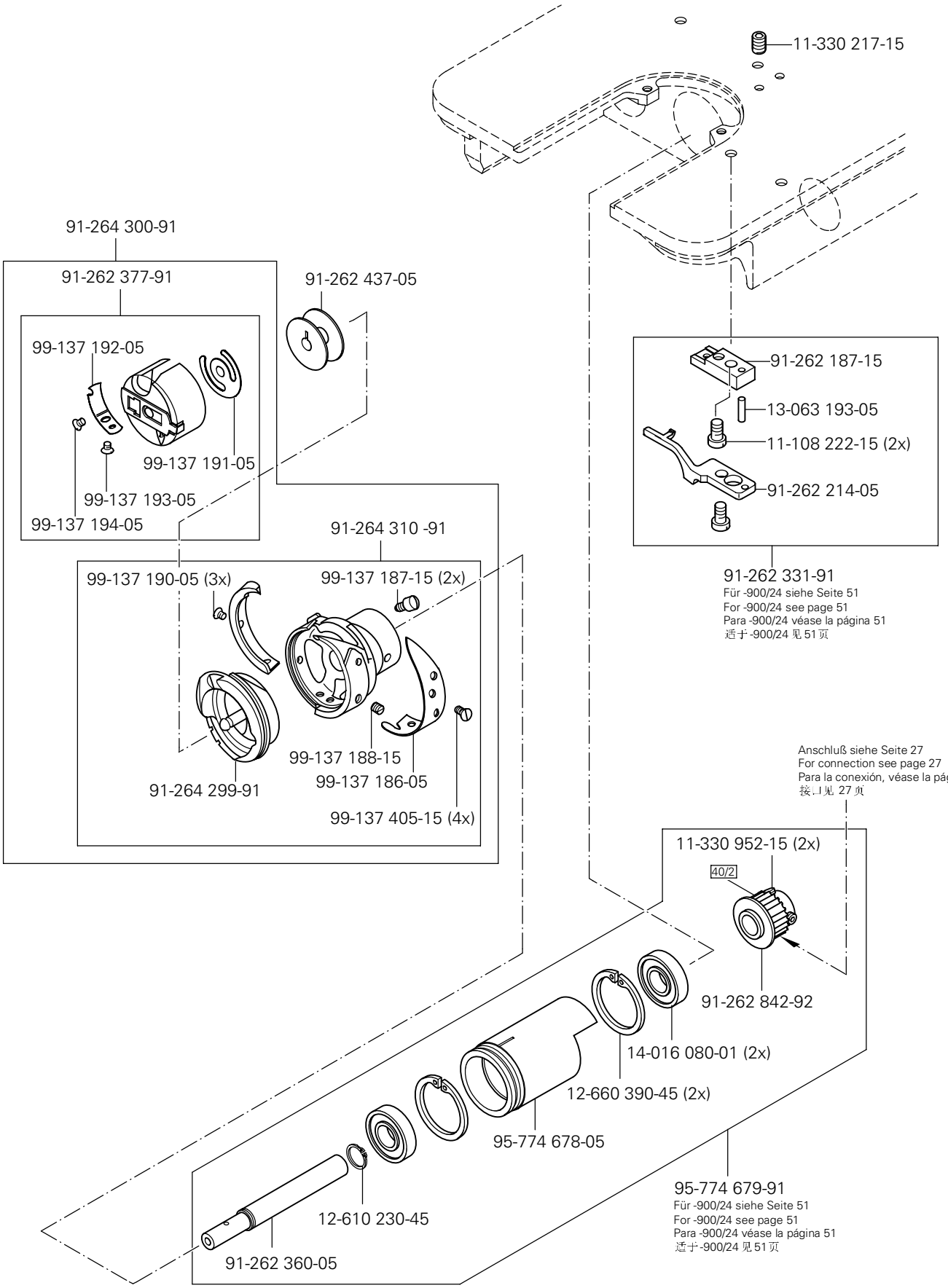

91-166 452-21
91-056 578-91
91-056 193-25
91-174 879-05
91-069 585-25
91-056 192-25
12-024 191-25
12-024 191-25
11-330 175-15
95-774 466-91
11-330 952-15
40/13
99-137 151-45
91-266 397-01
91-264 358-05
91-009 035-25
91-264 357-05
14-602 901-01 (2x)
91-118 683-05
91-171 049-05
12-640 130-55
12-618 190-45
95-774 465-25
91-100 281-25
91-171 042-05
95-774 467-05
95-774 464-05
91-700 996-15
11-210 168-15
91-174 783-05
11-250 084-15
Für -900/24 siehe Seite 50
For -900/24 see page 50
Para -900/24 véase la página 50
适于 -900/24 见 50 页

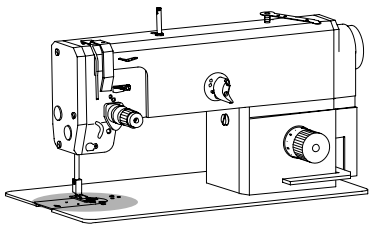


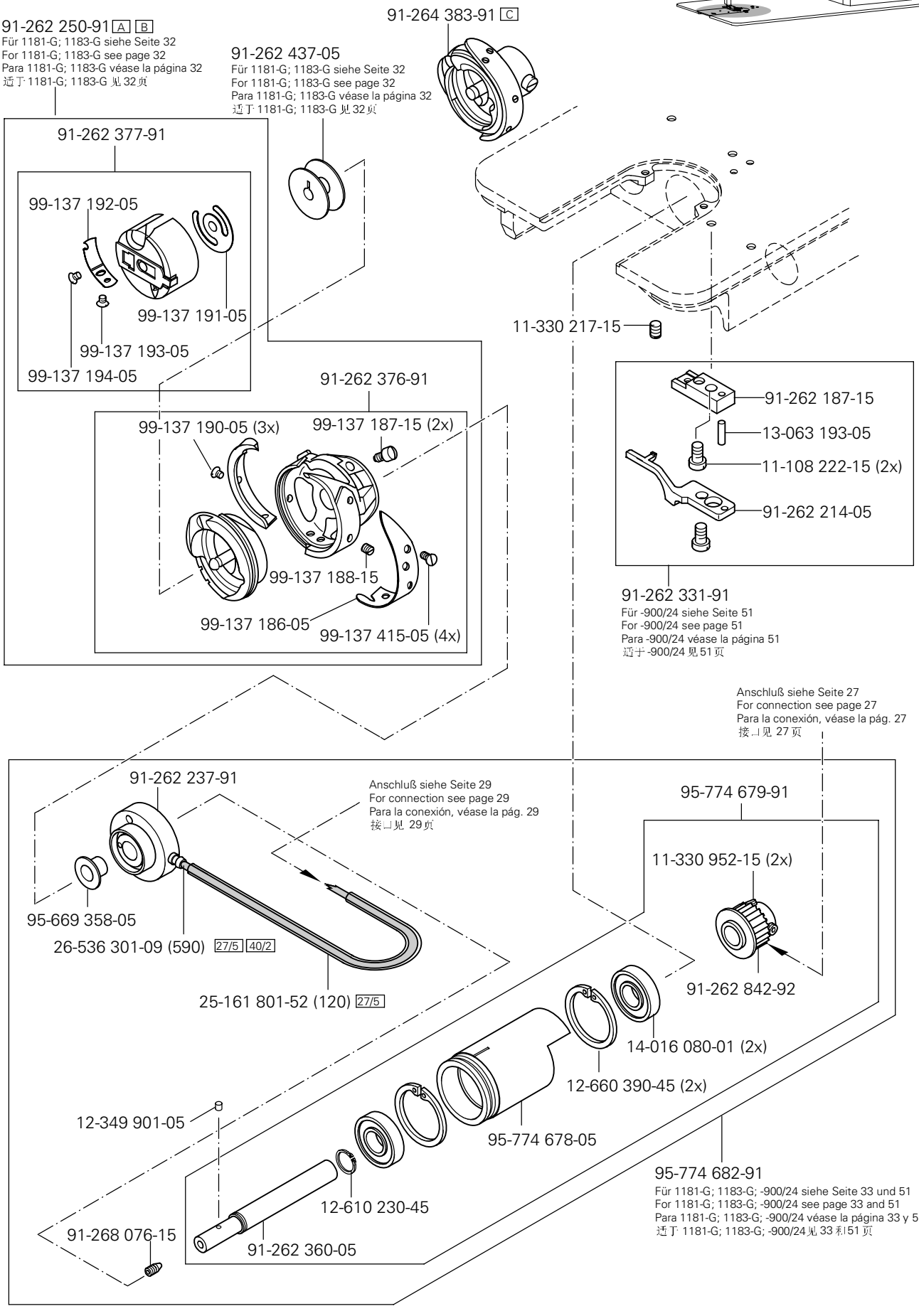


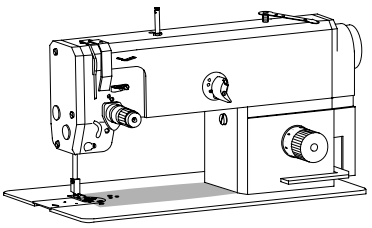
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

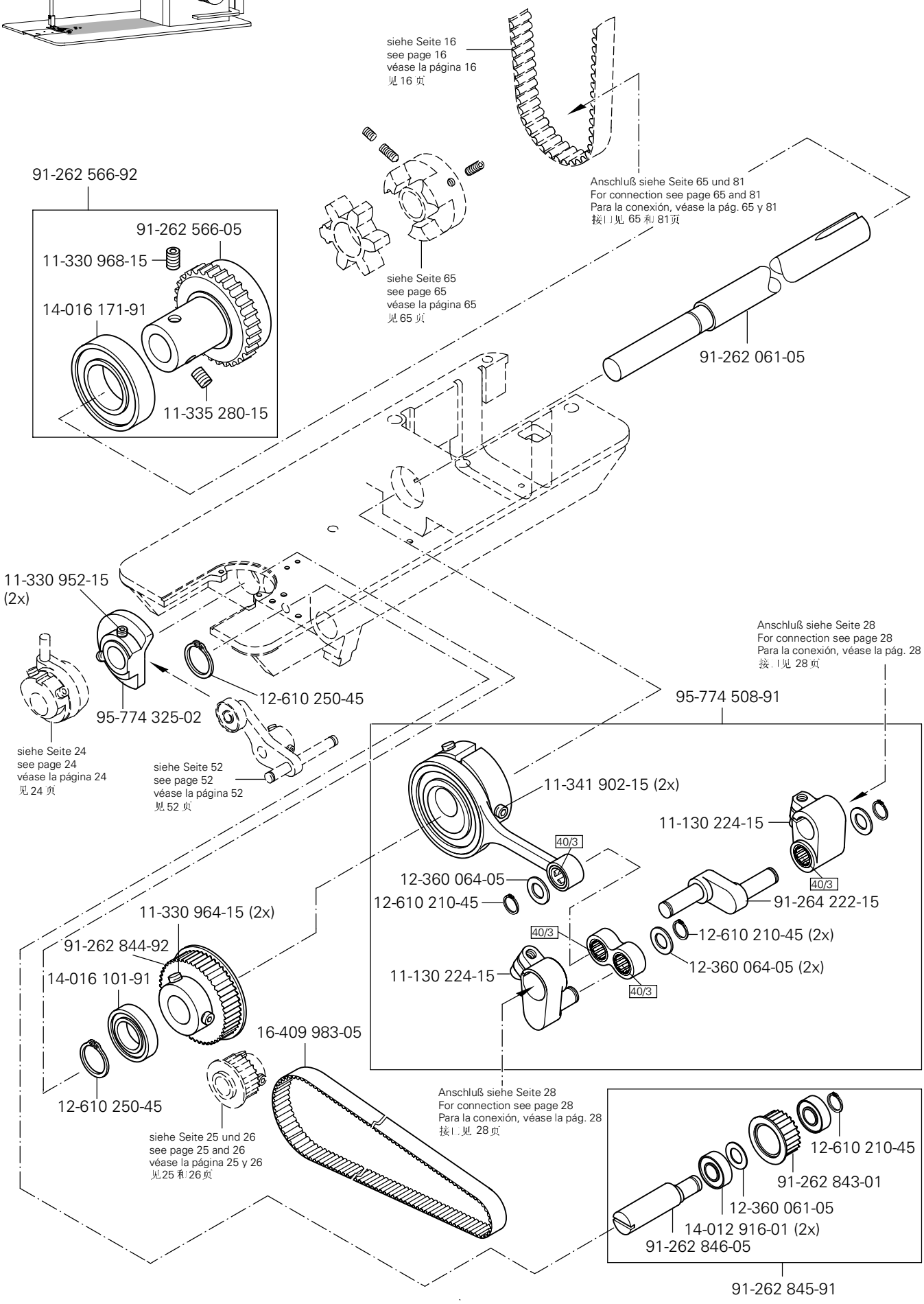


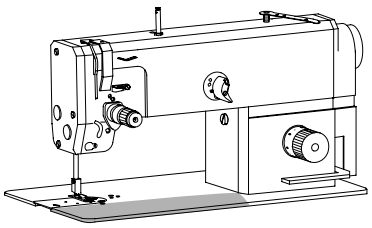

11-330 217-15
91-264 300-91
91-262 377-91
91-262 437-05
99-137 192-05
99-137 191-05
99-137 193-05
99-137 194-05
91-262 187-15
13-063 193-05
11-108 222-15 (2x)
91-262 214-05
91-262 331-91
Für -900/24 siehe Seite 51
For -900/24 see page 51
Para -900/24 véase la página 51
适于-900/24 见51页
91-264 310 -91
99-137 190-05 (3x)
99-137 187-15 (2x)
99-137 188-15
99-137 186-05
91-264 299-91
99-137 405-15 (4x)
Anschluß siehe Seite 27
For connection see page 27
Para la conexión, véase la pág. 27
接上见 27页
11-330 952-15 (2x)
40/2
91-262 842-92
14-016 080-01 (2x)
12-660 390-45 (2x)
95-774 678-05
12-610 230-45
91-262 360-05
95-774 679-91
Für -900/24 siehe Seite 51
For -900/24 see page 51
Para -900/24 véase la página 51
适于-900/24 见51页

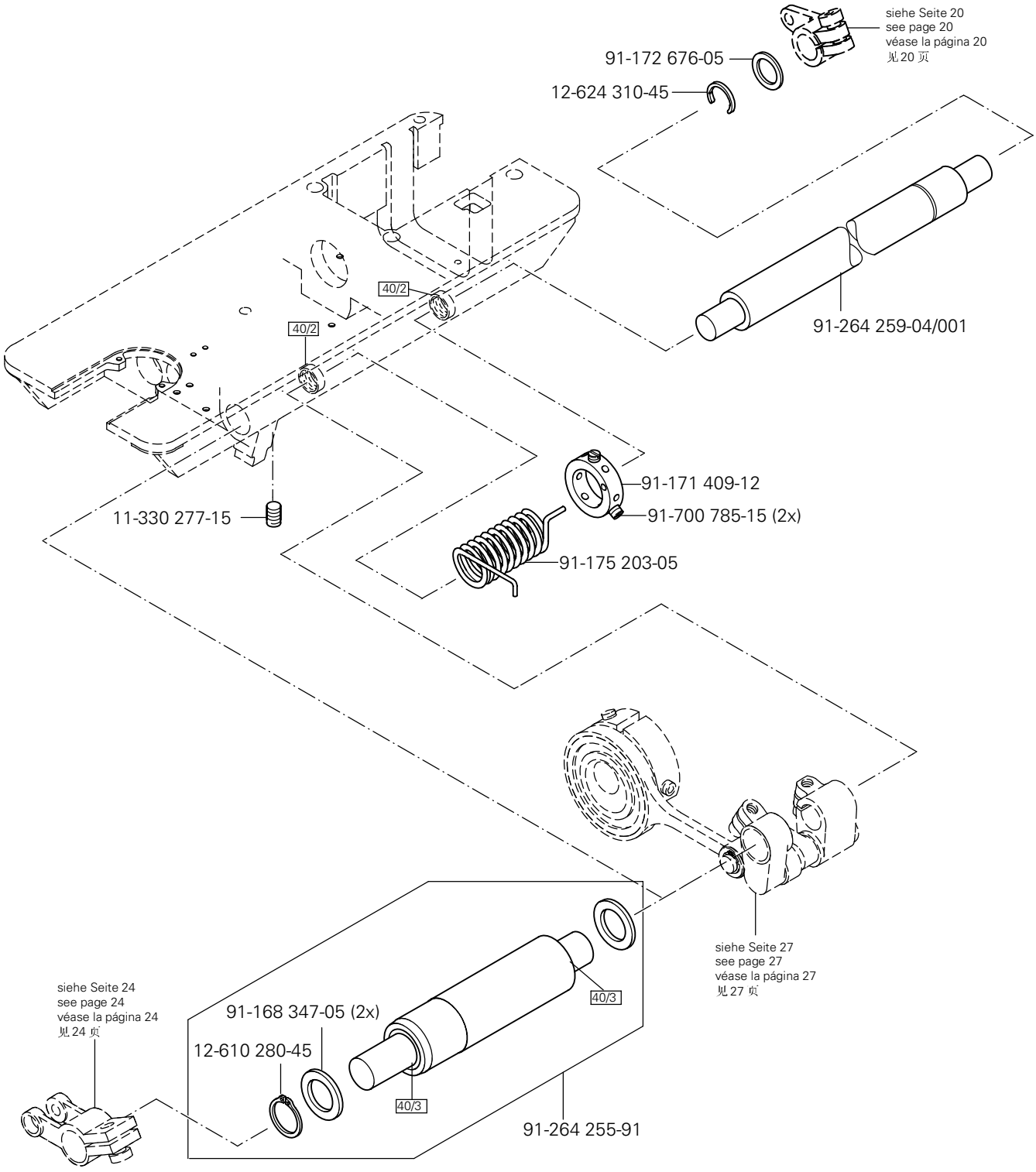


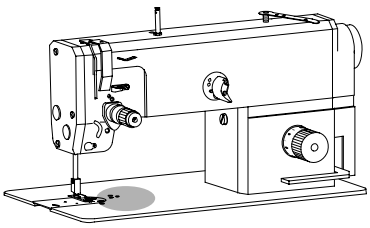

91-262 250-91 A B
Für 1181-G; 1183-G siehe Seite 32
For 1181-G; 1183-G see page 32
Para 1181-G; 1183-G véase la página 32
适于 1181-G; 1183-G 见 32 页
91-264 383-91 C
91-262 437-05
Für 1181-G; 1183-G siehe Seite 32
For 1181-G; 1183-G see page 32
Para 1181-G; 1183-G véase la página 32
适于 1181-G; 1183-G 见 32 页
91-262 377-91
99-137 192-05
99-137 191-05
99-137 193-05
99-137 194-05
11-330 217-15
91-262 376-91
99-137 190-05 (3x)
99-137 187-15 (2x)
99-137 188-15
99-137 186-05
99-137 415-05 (4x)
91-262 187-15
13-063 193-05
11-108 222-15 (2x)
91-262 214-05
91-262 331-91
Für -900/24 siehe Seite 51
For -900/24 see page 51
Para -900/24 véase la página 51
适于 -900/24 见 51 页
Anschluß siehe Seite 27
For connection see page 27
Para la conexión, véase la pág. 27
接口见 27 页
91-262 237-91
Anschluß siehe Seite 29
For connection see page 29
Para la conexión, véase la pág. 29
接口见 29 页
95-774 679-91
11-330 952-15 (2x)
95-669 358-05
26-536 301-09 (590) 27/5 40/2
25-161 801-52 (120) 27/5
91-262 842-92
14-016 080-01 (2x)
12-660 390-45 (2x)
12-349 901-05
95-774 678-05
95-774 682-91
Für 1181-G; 1183-G; -900/24 siehe Seite 33 und 51
For 1181-G; 1183-G; -900/24 see page 33 and 51
Para 1181-G; 1183-G; -900/24 véase la página 33 y 51
适于 1181-G; 1183-G; -900/24 见 33 和 51 页
12-610 230-45
91-268 076-15
91-262 360-05

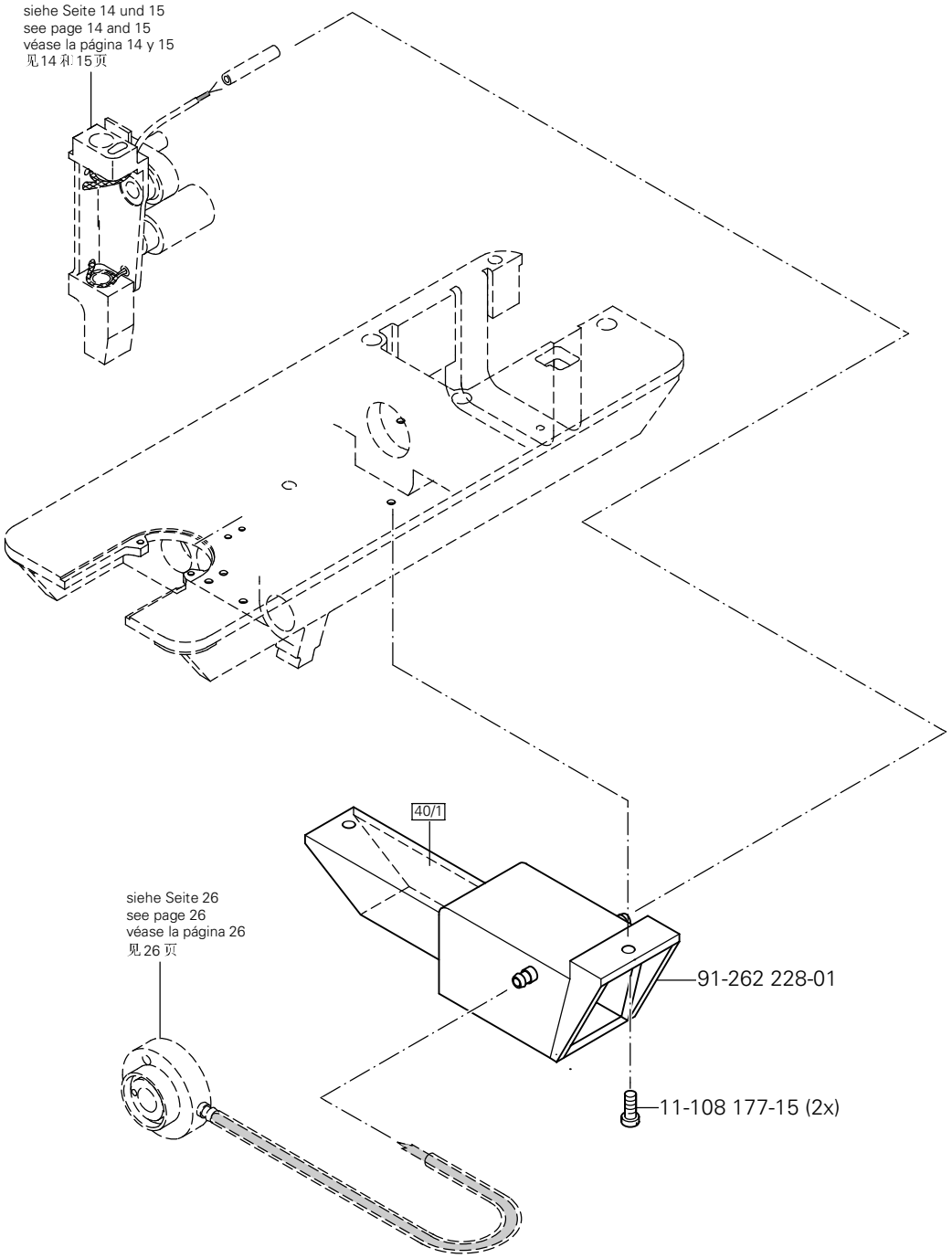


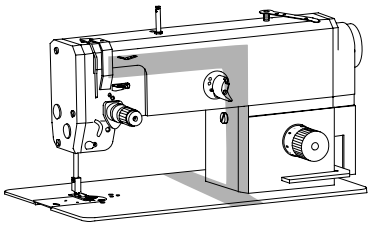

siehe Seite 16
see page 16
véase la página 16
见16页
91-262 566-92
91-262 566-05
11-330 968-15
14-016 171-91
11-335 280-15
siehe Seite 65
see page 65
véase la página 65
见65页
Anschluß siehe Seite 65 und 81
For connection see page 65 and 81
Para la conexión, véase la pág. 65 y 81
接口见 65 和 81页
91-262 061-05
11-330 952-15
(2x)
95-774 325-02
12-610 250-45
siehe Seite 24
see page 24
véase la página 24
见24页
siehe Seite 52
see page 52
véase la página 52
见52页
Anschluß siehe Seite 28
For connection see page 28
Para la conexión, véase la pág. 28
接口见 28页
95-774 508-91
11-341 902-15 (2x)
40/3
12-360 064-05
12-610 210-45
11-130 224-15
40/3
91-264 222-15
40/3
12-610 210-45 (2x)
12-360 064-05 (2x)
40/3
11-130 224-15
11-330 964-15 (2x)
91-262 844-92
14-016 101-91
12-610 250-45
16-409 983-05
siehe Seite 25 und 26
see page 25 and 26
véase la página 25 y 26
见25和26页
Anschluß siehe Seite 28
For connection see page 28
Para la conexión, véase la pág. 28
接口见 28页
12-610 210-45
91-262 843-01
12-360 061-05
14-012 916-01 (2x)
91-262 846-05
91-262 845-91

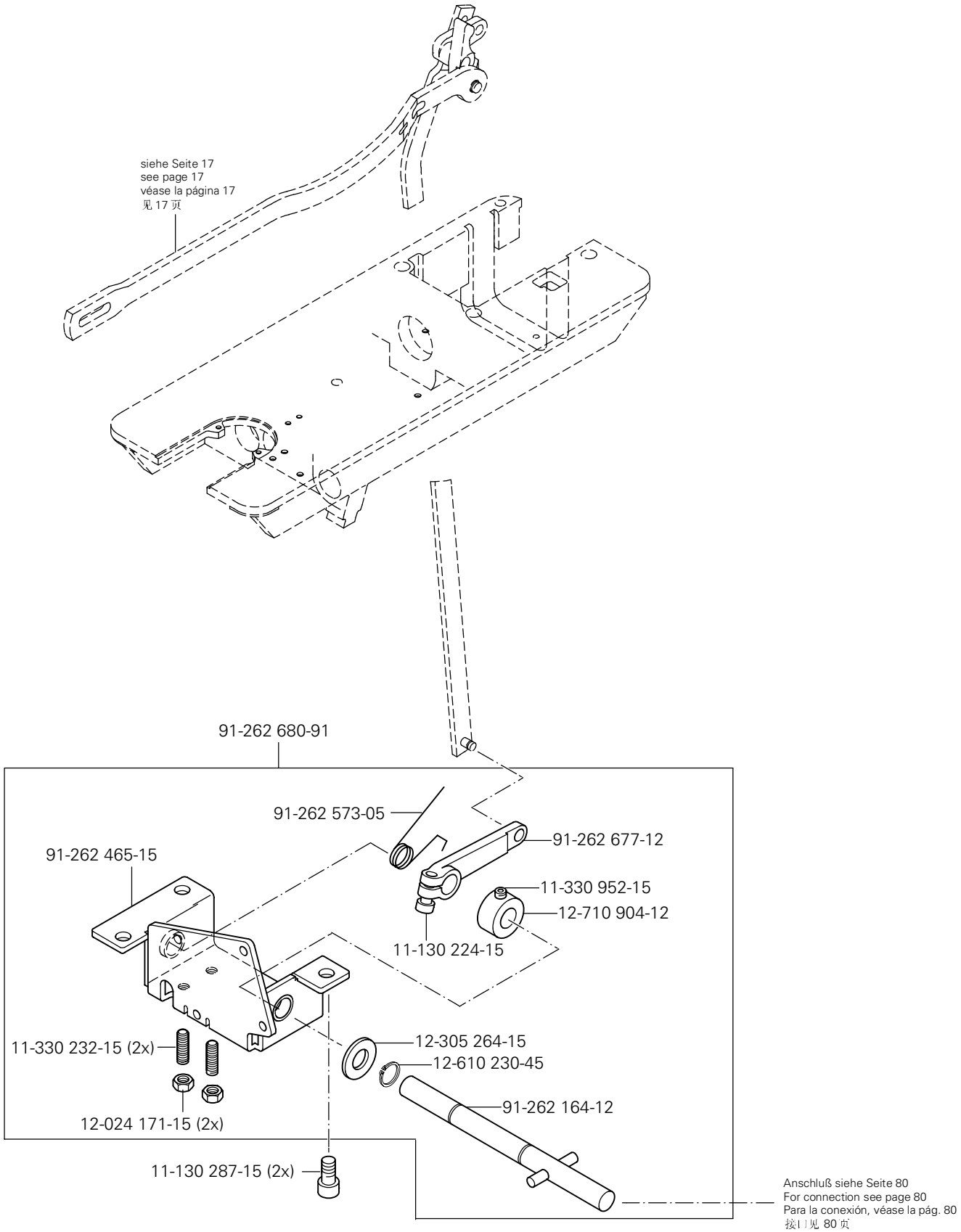


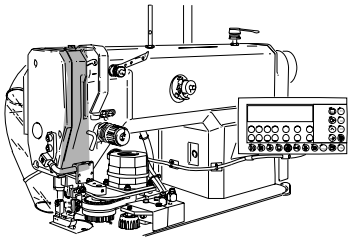

siehe Seite 20
see page 20
véase la página 20
见 20 页
91-172 676-05
12-624 310-45
91-264 259-04/001
40/2
40/2
91-171 409-12
91-700 785-15 (2x)
11-330 277-15
91-175 203-05
siehe Seite 27
see page 27
véase la página 27
见 27 页
siehe Seite 24
see page 24
véase la página 24
见 24 页
91-168 347-05 (2x)
12-610 280-45
40/3
40/3
91-264 255-91

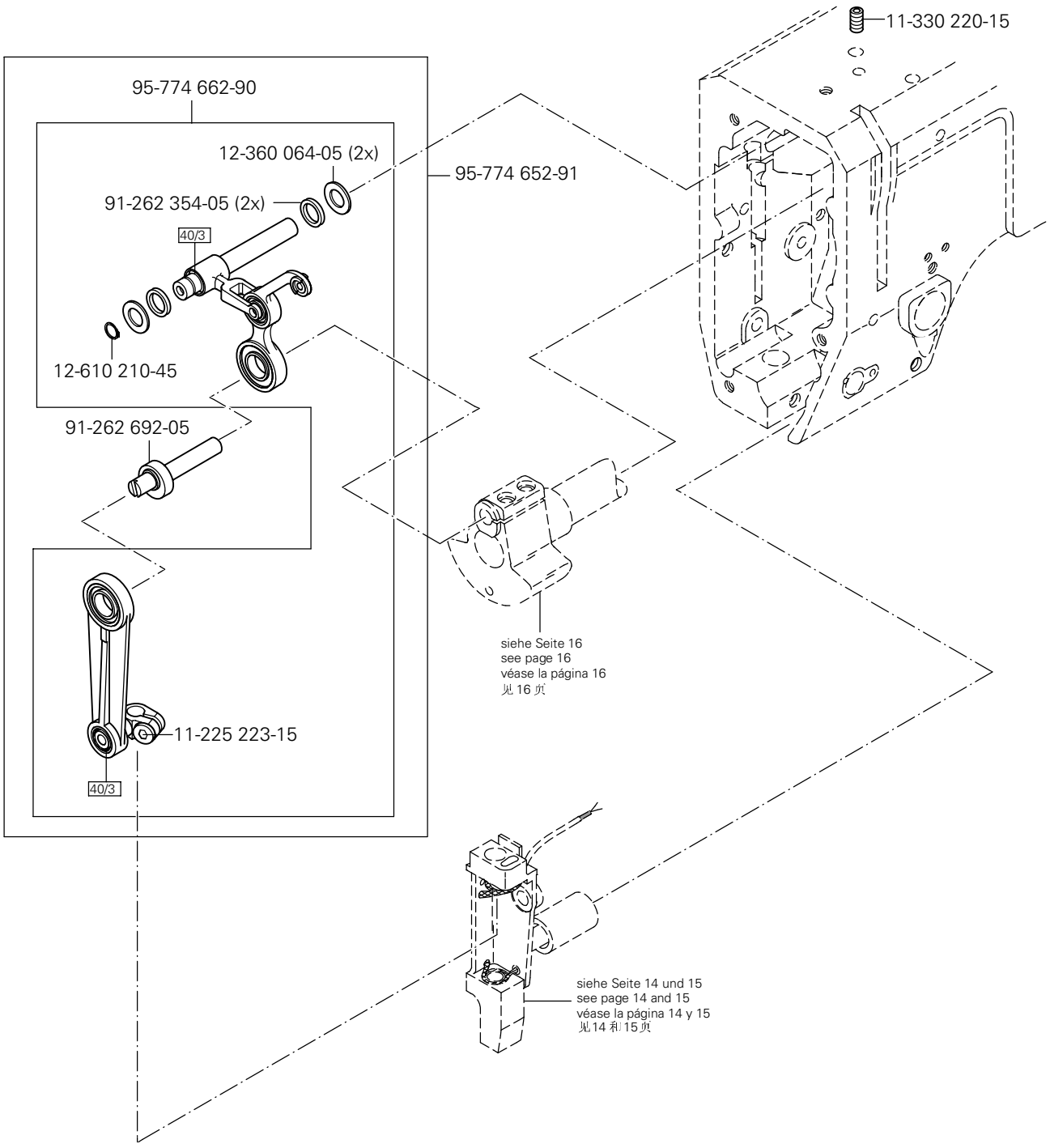


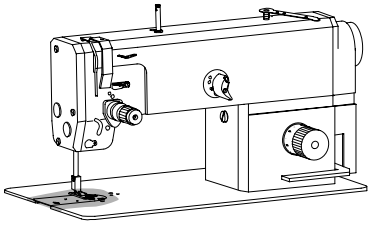

siehe Seite 14 und 15
see page 14 and 15
véase la página 14 y 15
见14和15页
40/1
siehe Seite 26
see page 26
véase la página 26
见26页
91-262 228-01
11-108 177-15 (2x)

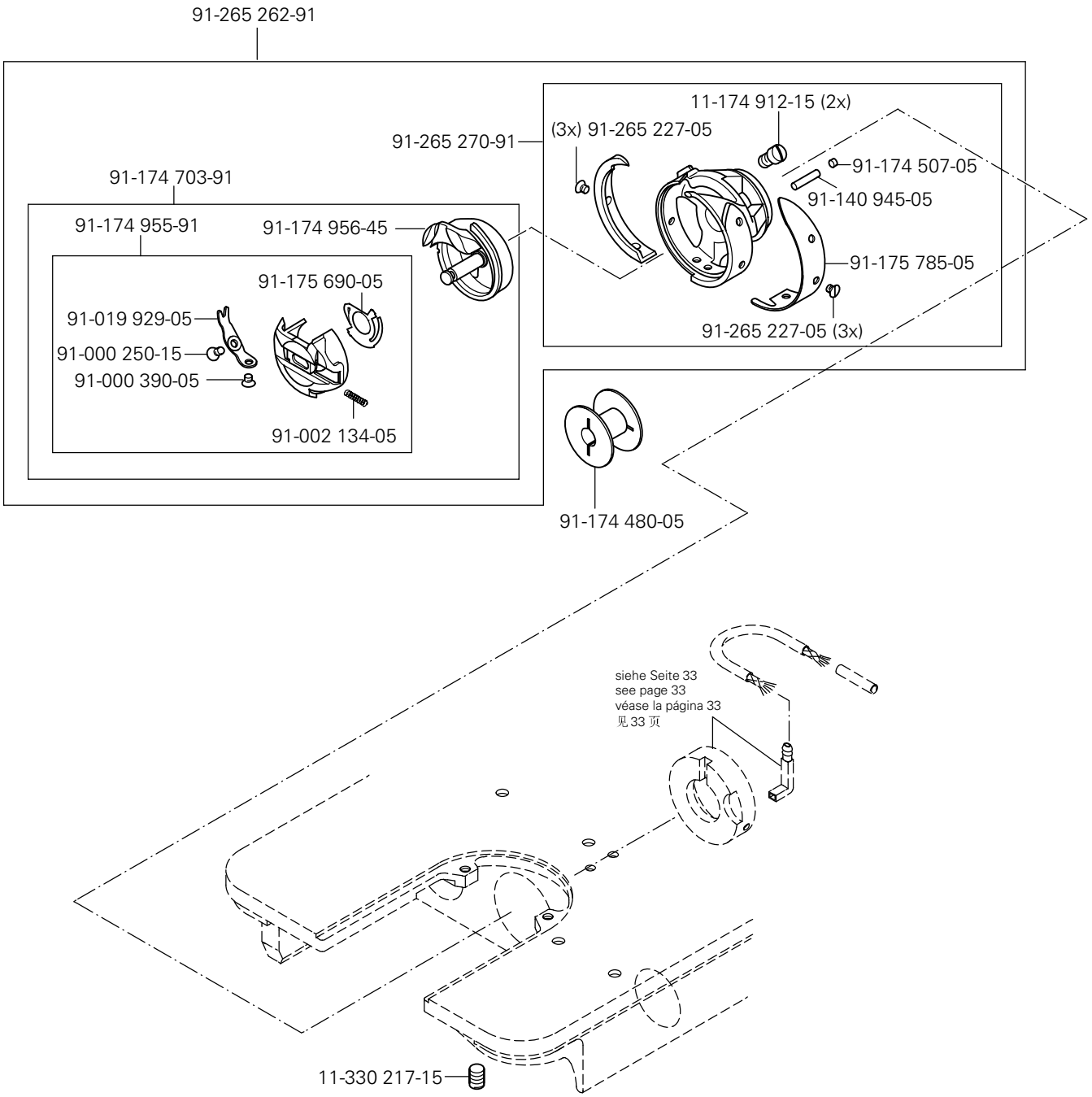



siehe Seite 17
see page 17
véase la página 17
见 17 页
91-262 680-91
91-262 573-05
91-262 677-12
91-262 465-15
11-330 952-15
12-710 904-12
11-130 224-15
11-330 232-15 (2x)
12-305 264-15
12-610 230-45
91-262 164-12
12-024 171-15 (2x)
11-130 287-15 (2x)
Anschluß siehe Seite 80
For connection see page 80
Para la conexión, véase la pág. 80
接口见 80 页



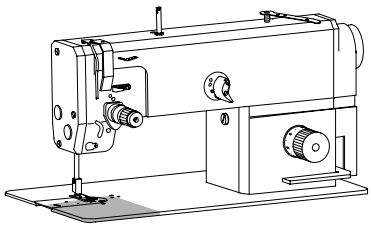

11-330 220-15
95-774 662-90
12-360 064-05 (2x)
95-774 652-91
91-262 354-05 (2x)
40/3
12-610 210-45
91-262 692-05
siehe Seite 16
see page 16
véase la página 16
见 16 页
11-225 223-15
40/3
siehe Seite 14 und 15
see page 14 and 15
véase la página 14 y 15
见14 和15页

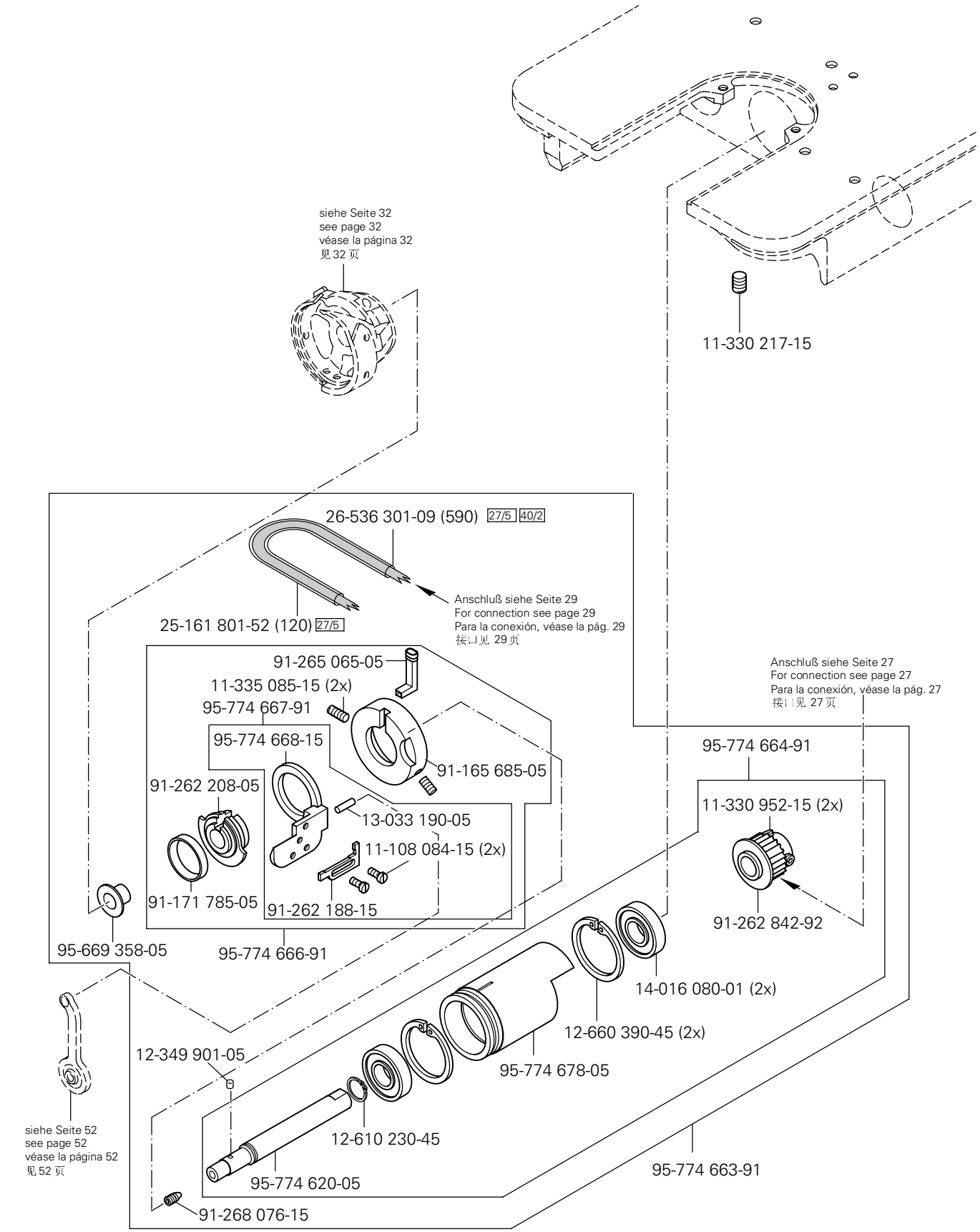


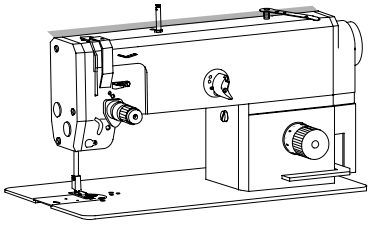


(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



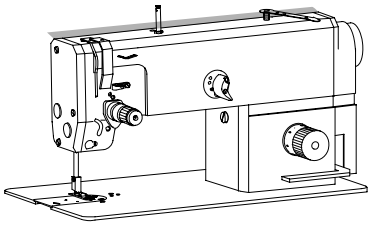

11-330 217-15
siehe Seite 32
see page 32
véase la página 32
见 32 页
26-536 301-09 (590) 27/5 40/2
Anschluß siehe Seite 29
For connection see page 29
Para la conexión, véase la pág. 29
接口见 29 页
25-161 801-52 (120) 27/5
91-265 065-05
11-335 085-15 (2x)
95-774 667-91
95-774 668-15
91-165 685-05
91-262 208-05
13-033 190-05
11-108 084-15 (2x)
91-171 785-05
91-262 188-15
95-669 358-05
95-774 666-91
Anschluß siehe Seite 27
For connection see page 27
Para la conexión, véase la pág. 27
接口见 27 页
95-774 664-91
11-330 952-15 (2x)
91-262 842-92
14-016 080-01 (2x)
12-660 390-45 (2x)
95-774 678-05
12-349 901-05
12-610 230-45
95-774 620-05
95-774 663-91
91-268 076-15
siehe Seite 52
see page 52
véase la página 52
见 52 页



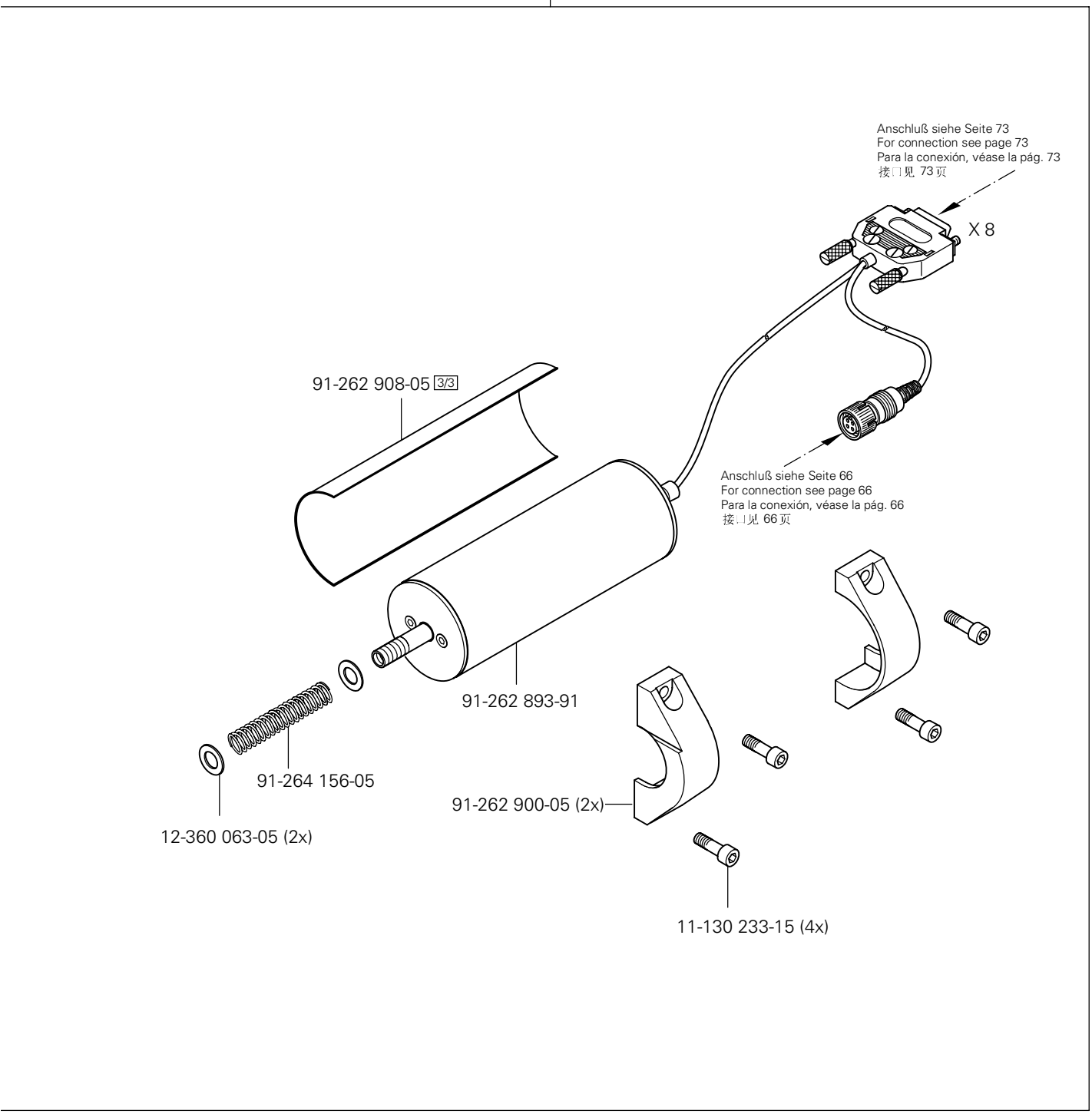
11-130 305-25 (2x)
71-370 001-31
11-130 167-15
91-262 929-15
12-640 130-55 (2x)
12-024 191-15
91-262 930-05
91-262 899-75/896
91-262 931-05 (2x)
99-137 341-01
12-360 043-05 (3x)
12-610 190-45
40/3
11-225 220-15 (3x)
91-264 186-91
12-640 130-55
91-262 931-05
99-137 341-01
91-262 926-11
11-330 955-15
91-118 711-05
91-262 770-05
91-264 769-92
11-132 223-15
11-130 203-15
91-264 187-91

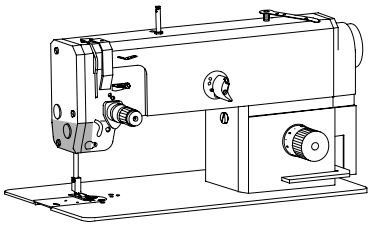
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



91-264 189-71/896

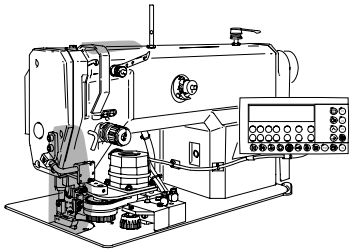




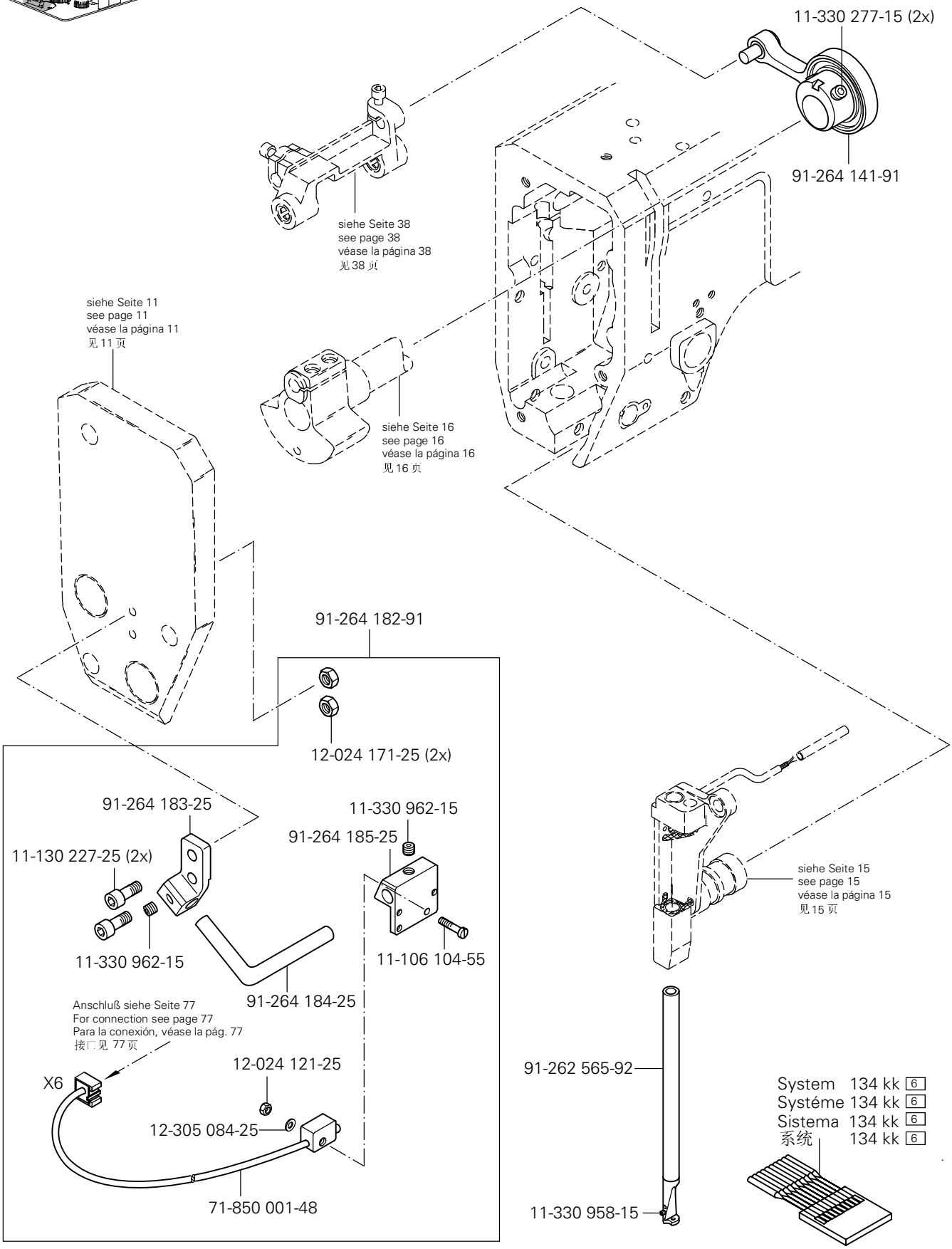
11-130 224-15
11-225 232-15
12-624 200-45
91-262 882-15
91-262 962-91
91-262 958-15
11-130 086-15 (2x)
71-170 002-20
12-005 154-15 (3x)
Y 8
91-262 940-91
91-262 792-05
91-100 117-15
91-069 579-05
12-640 130-55 (2x)
Anschluß siehe Seite 61
For connection see page 61
Para la conexión, véase la pág. 61
接口见 61 页
91-262 905-91
91-262 790-15
91-262 791-05

(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3. 01至3. 04章中的相同)

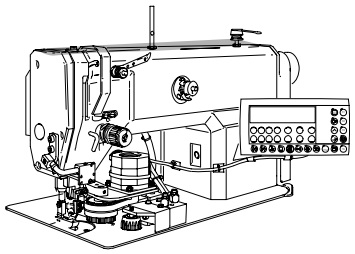
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



Abweichende Teile der PFAFF 3511-2/01
Different parts for PFAFF 3511-2/01
Piezas de la PFAFF 3511-2/01 que son diferentes
PFAFF 3511-2/01 中有差别的零件



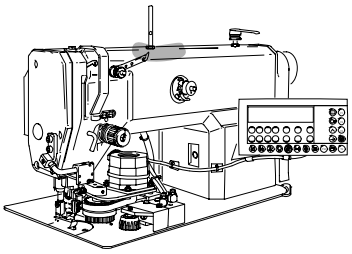
Abweichende Teile der PFAFF 3511-2/01
Different parts for PFAFF 3511-2/01
Piezas de la PFAFF 3511-2/01 que son diferentes
PFAFF 3511-2/01 中有差别的零件



95-778 521-71/895
11-130 233-15 (3x)
11-180 283-25 (4x)
91-264 133-75/895
11-330 220-15 (3x)
95-778 335-01
11-335 169-15
12-710 210-12
12-640 200-55
11-330 952-15
siehe Seite 37
see page 37
véase la página 37
见37 页
11-130 176-15 (2x)
91-069 577-91
40/3
40/3
12-024 191-15
91-264 213-12
11-330 955-15 (2x)
91-069 632-05
91-264 146-05
91-264 214-05
91-069 632-05
91-118 711-05
91-264 212-91
91-264 140-15
11-130 224-15
91-069 630-91
11-174 176-15 (2x)
12-005 195-15
91-069 484-05
91-069 483-05
91-069 599-15
91-069 600-15
91-069 601-15
11-108 135-15 (3x)
11-130 173-15 (2x)
91-069 598-11

(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



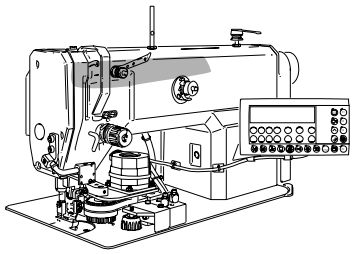
95-778 514-70/895

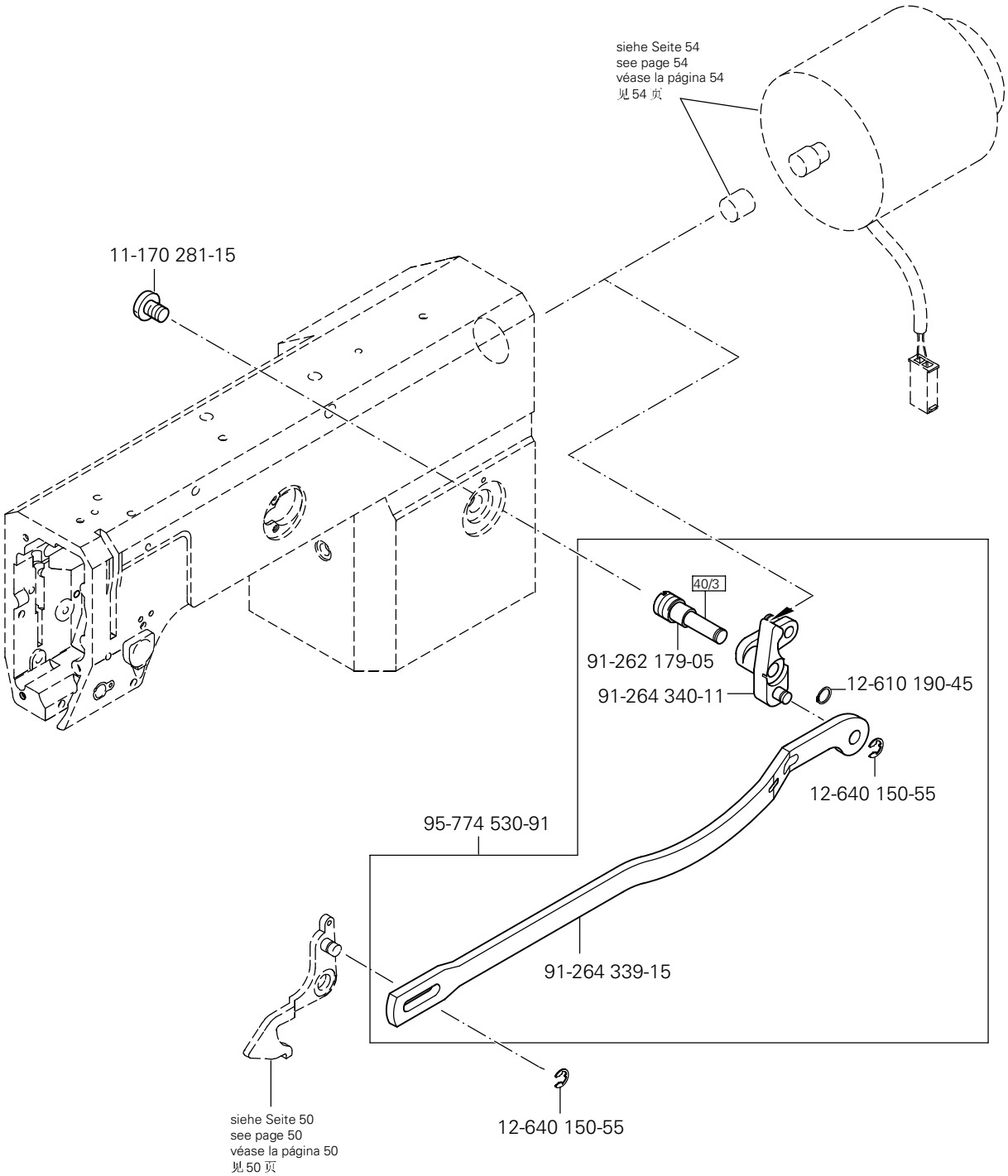
Anschluß siehe Seite 44
For connection see page 44
Para la conexión, véase la pág. 44
接口 见 44 页

11-130 233-15 (2x)
12-305 144-15 (2x)
11-130 239-15 (2x)
B2
99-135 298-91 (2x)
A2
99-137 392-91
11-330 232-15
16-041 045-21
95-778 338-75/895
12-024 171-25
11-130 239-15
11-130 227-15
12-610 200-45
91-069 489-12
91-069 486-05
91-069 789-15
91-107 265-05
11-174 176-15 (2x)
11-108 096-15
91-264 134-91

siehe Seite 38
see page 38
véase la página 38
见 38 页

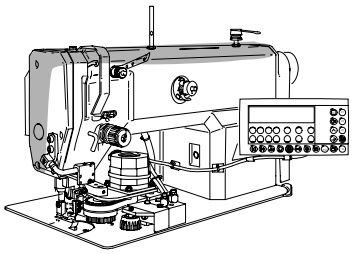
40/2
91-069 371-92
11-130 173-15 (2x)



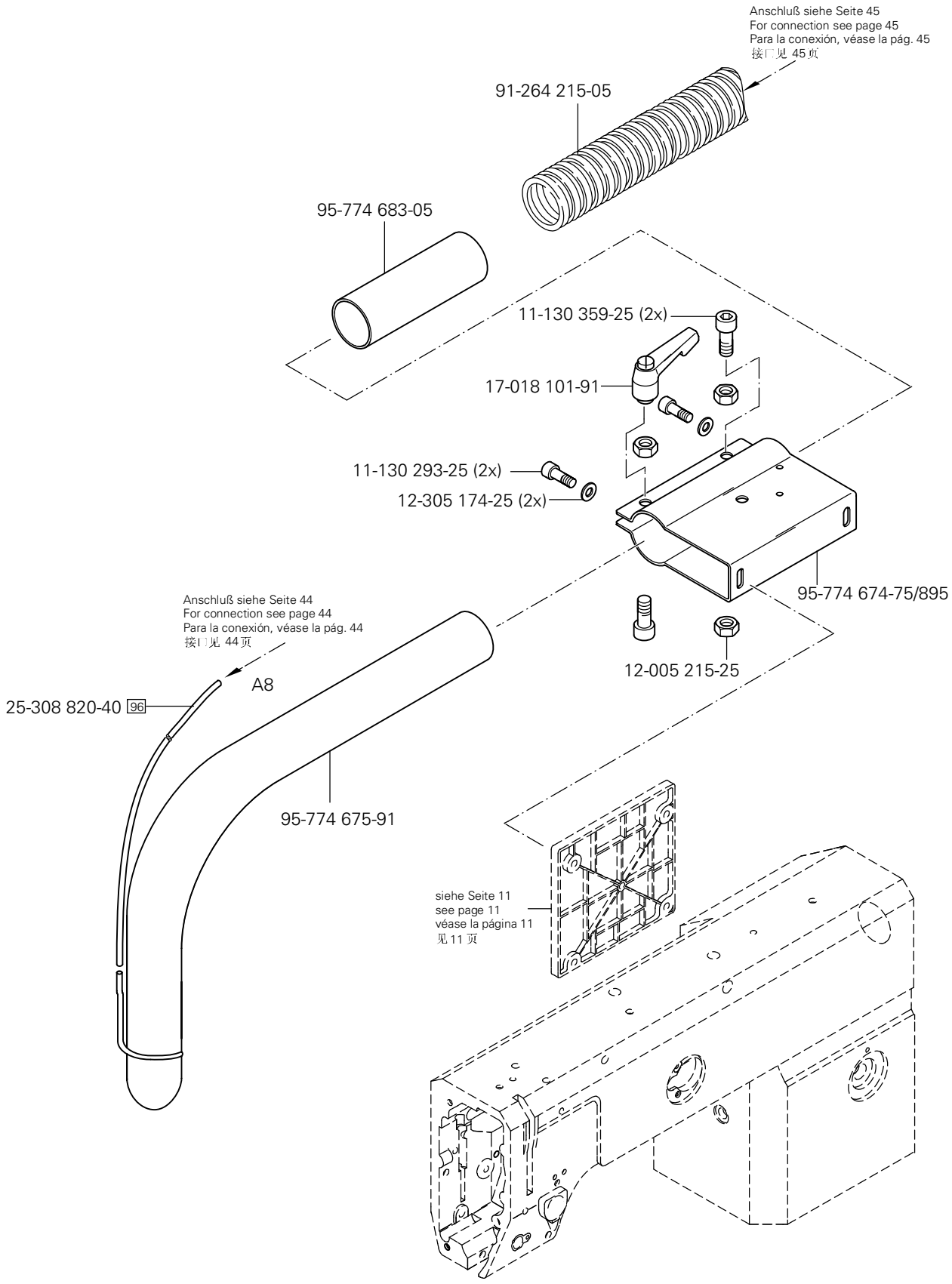


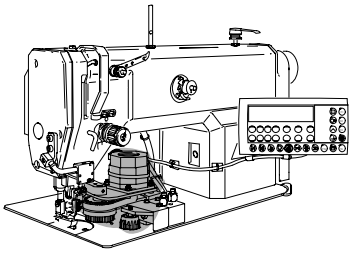
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

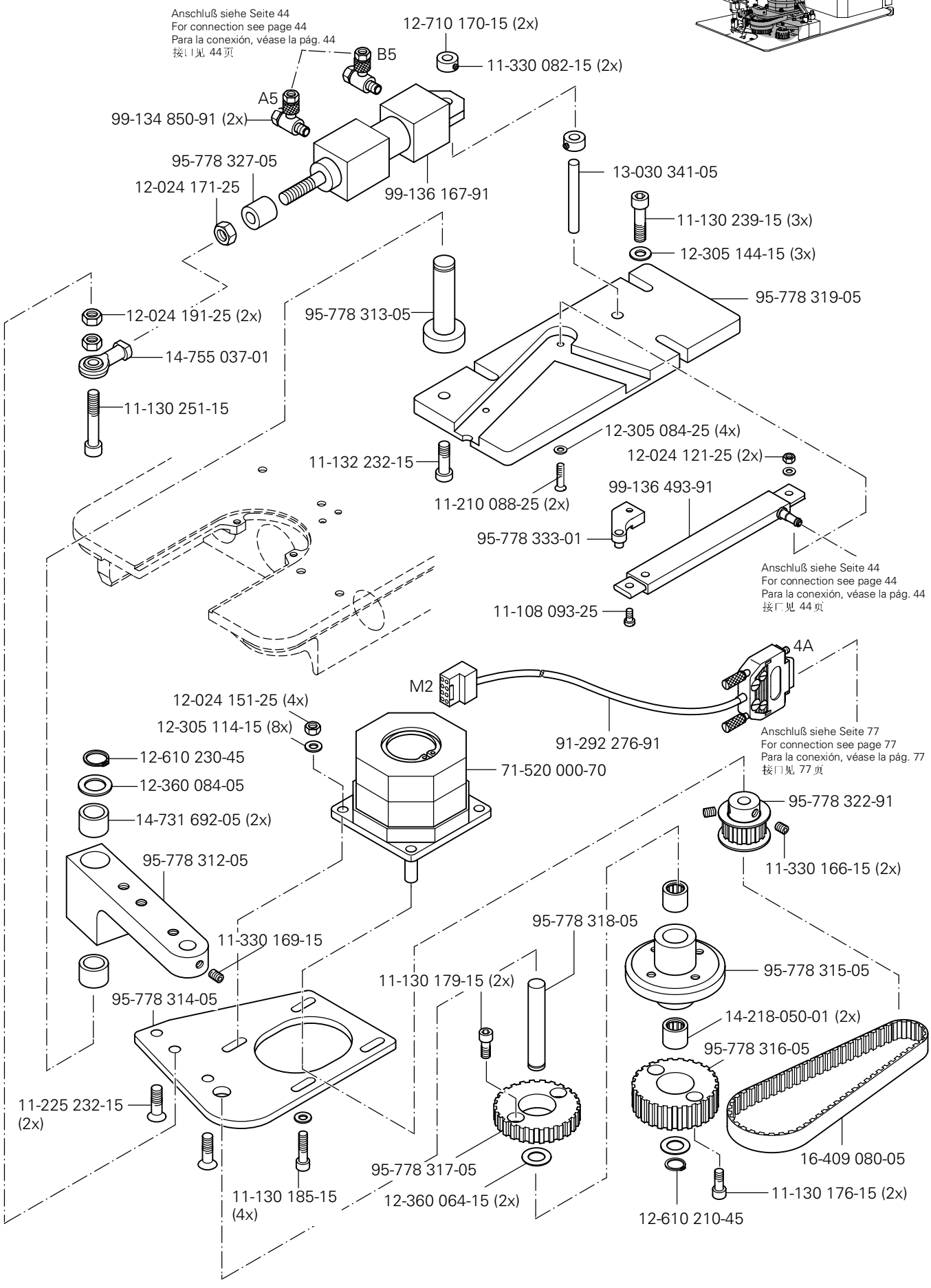
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



Abweichende Teile der PFAFF 3511-2/01
Different parts for PFAFF 3511-2/01
Piezas de la PFAFF 3511-2/01 que son diferentes
PFAFF 3511-2/01 中有差别的零件

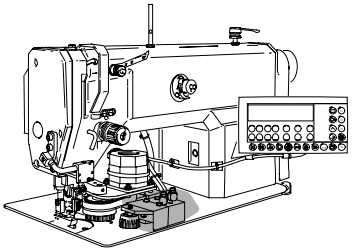


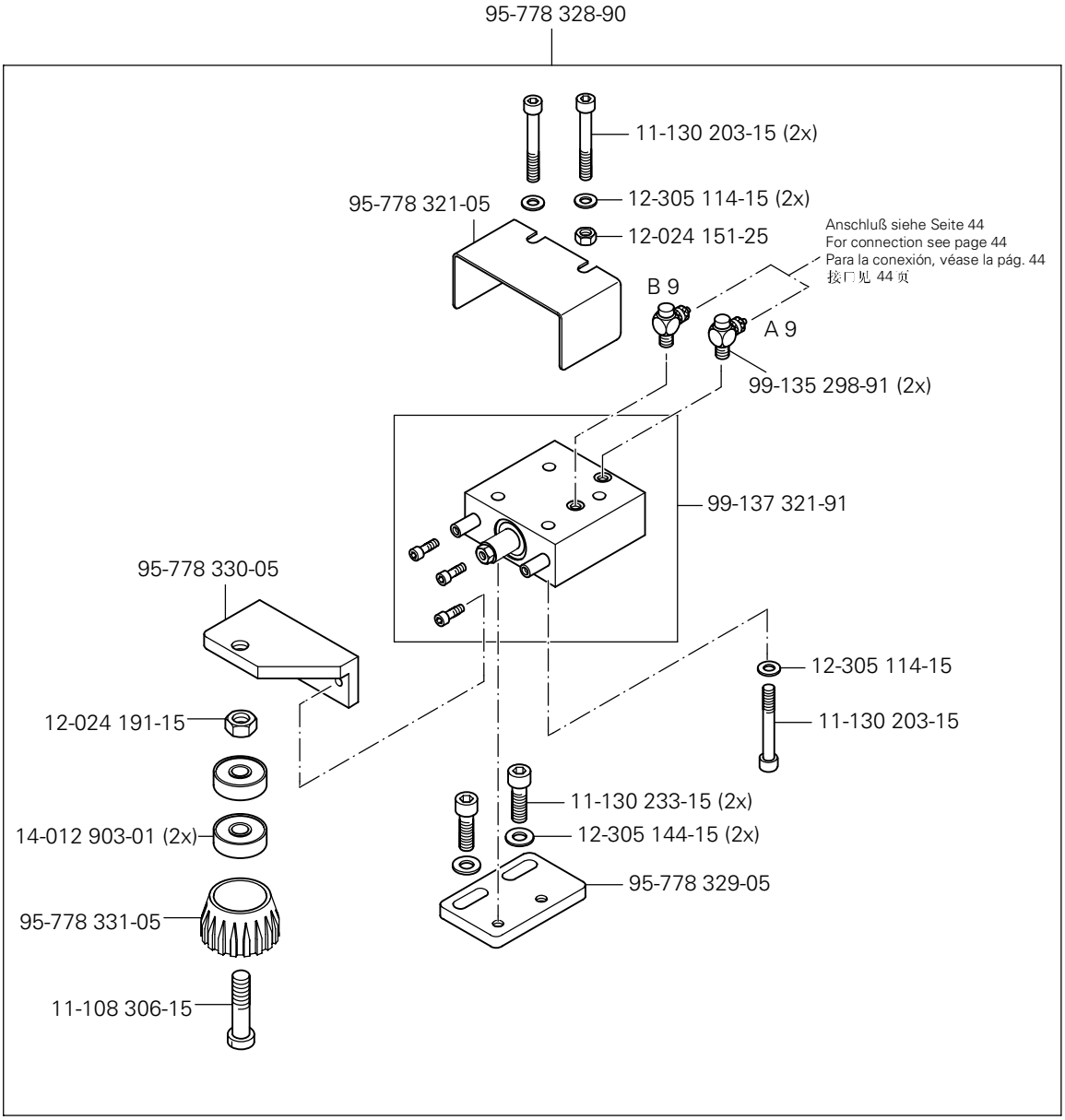


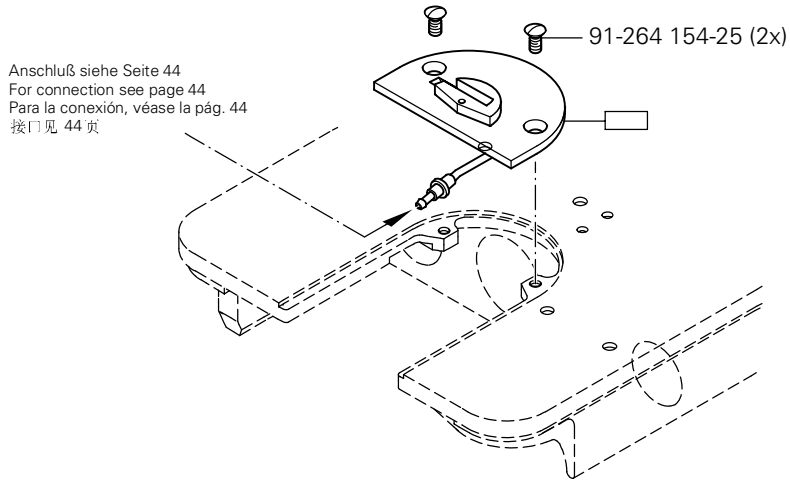


(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

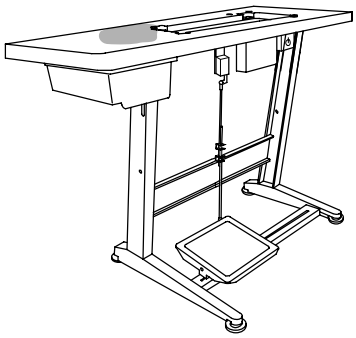


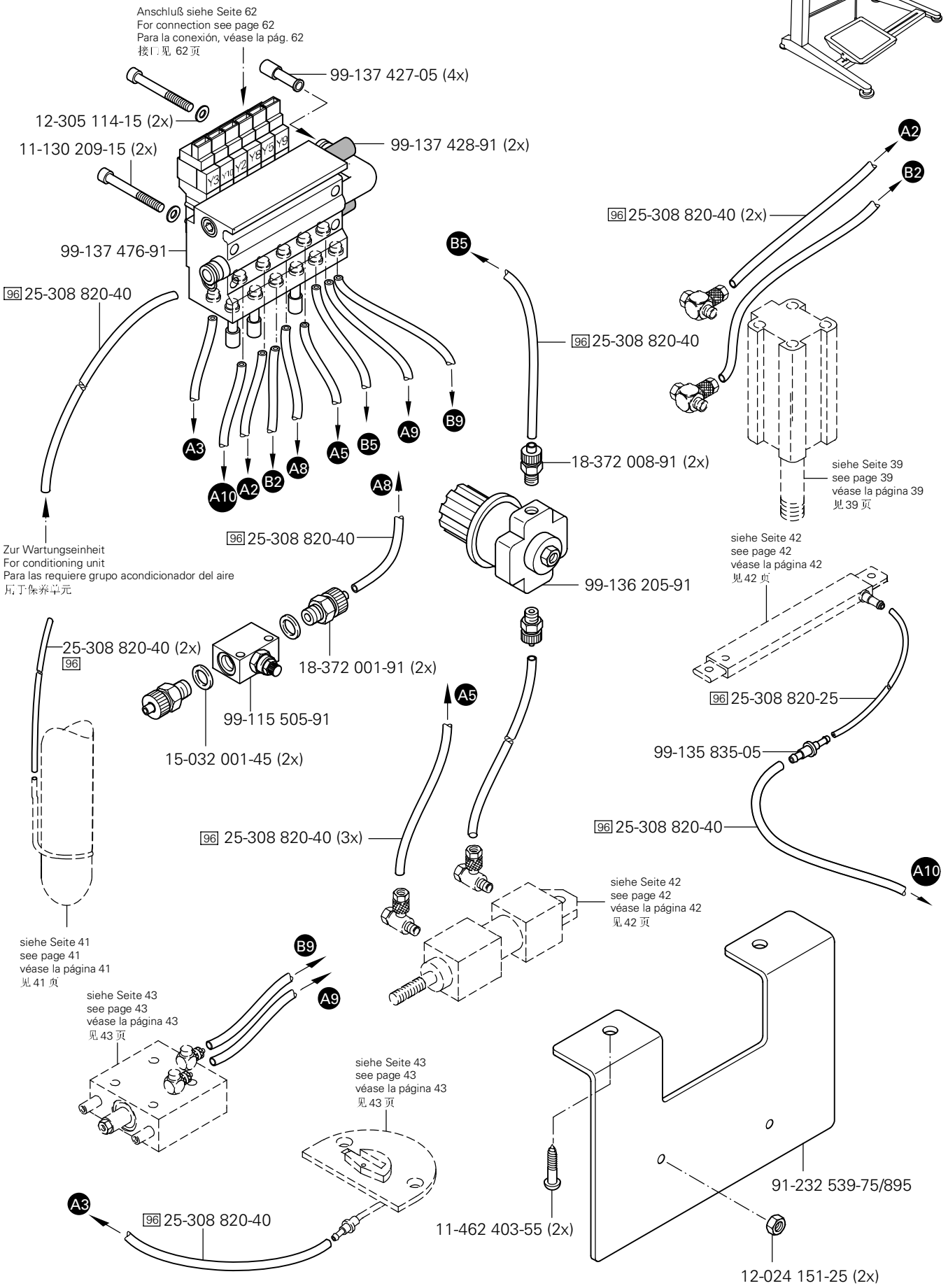

95-778 328-90
11-130 203-15 (2x)
95-778 321-05
12-305 114-15 (2x)
12-024 151-25
Anschluß siehe Seite 44
For connection see page 44
Para la conexión, véase la pág. 44
接口见 44 页
B 9
A 9
99-135 298-91 (2x)
99-137 321-91
95-778 330-05
12-305 114-15
12-024 191-15
11-130 203-15
11-130 233-15 (2x)
14-012 903-01 (2x)
12-305 144-15 (2x)
95-778 329-05
95-778 331-05
11-108 306-15


91-264 154-25 (2x)
Anschluß siehe Seite 44
For connection see page 44
Para la conexión, véase la pág. 44
接口见 44 页

6

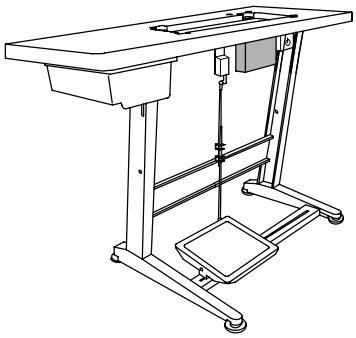
Abweichende Teile der PFAFF 3511-2/01
Different parts for PFAFF 3511-2/01
Piezas de la PFAFF 3511-2/01 que son diferentes
PFAFF 3511-2/01 中有差别的零件



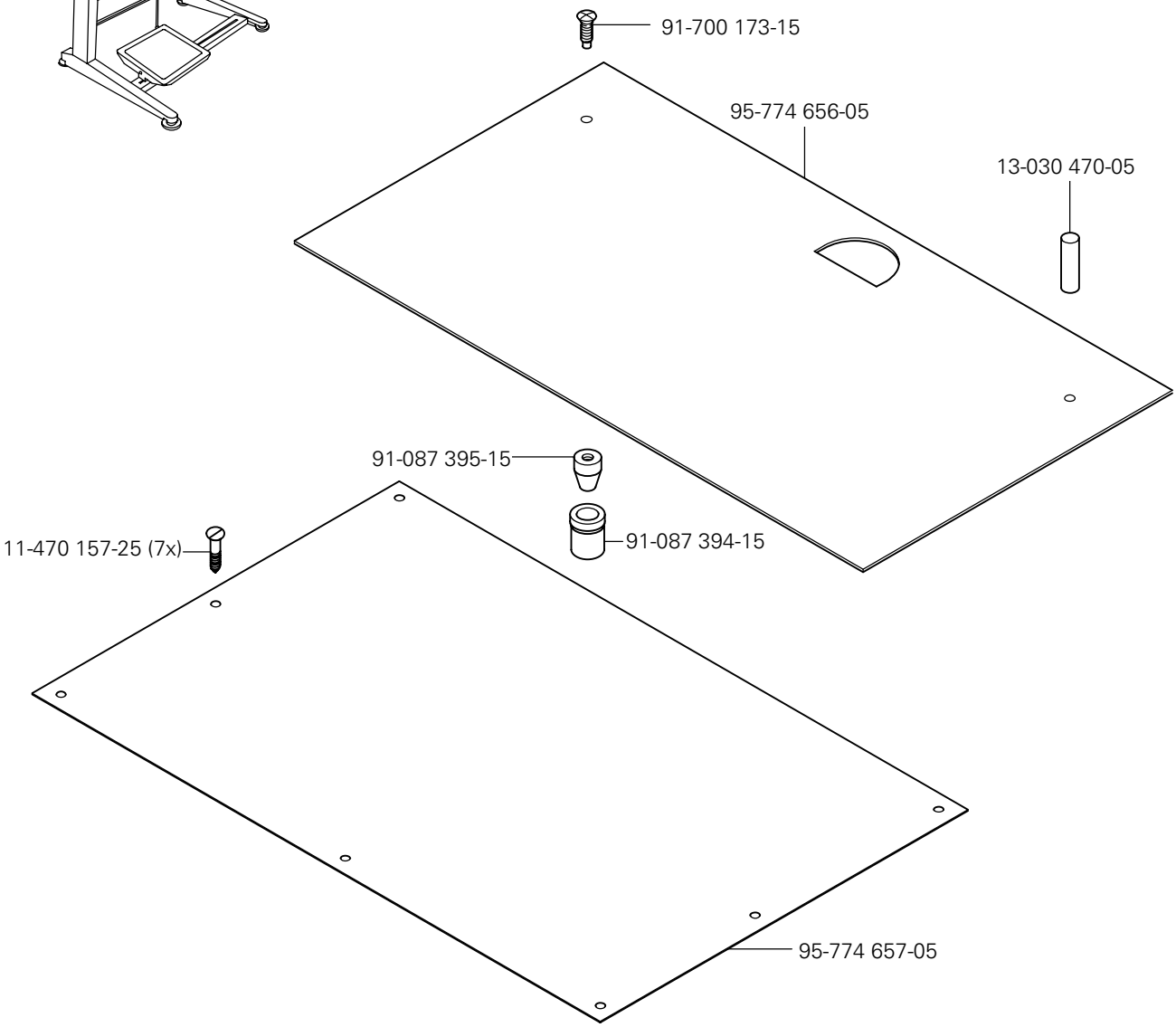


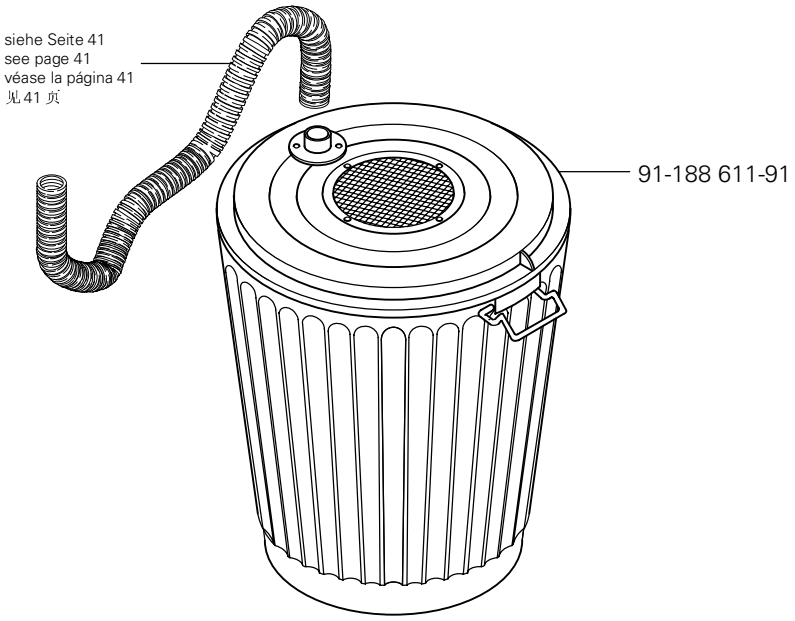
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

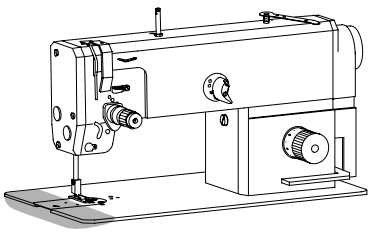
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

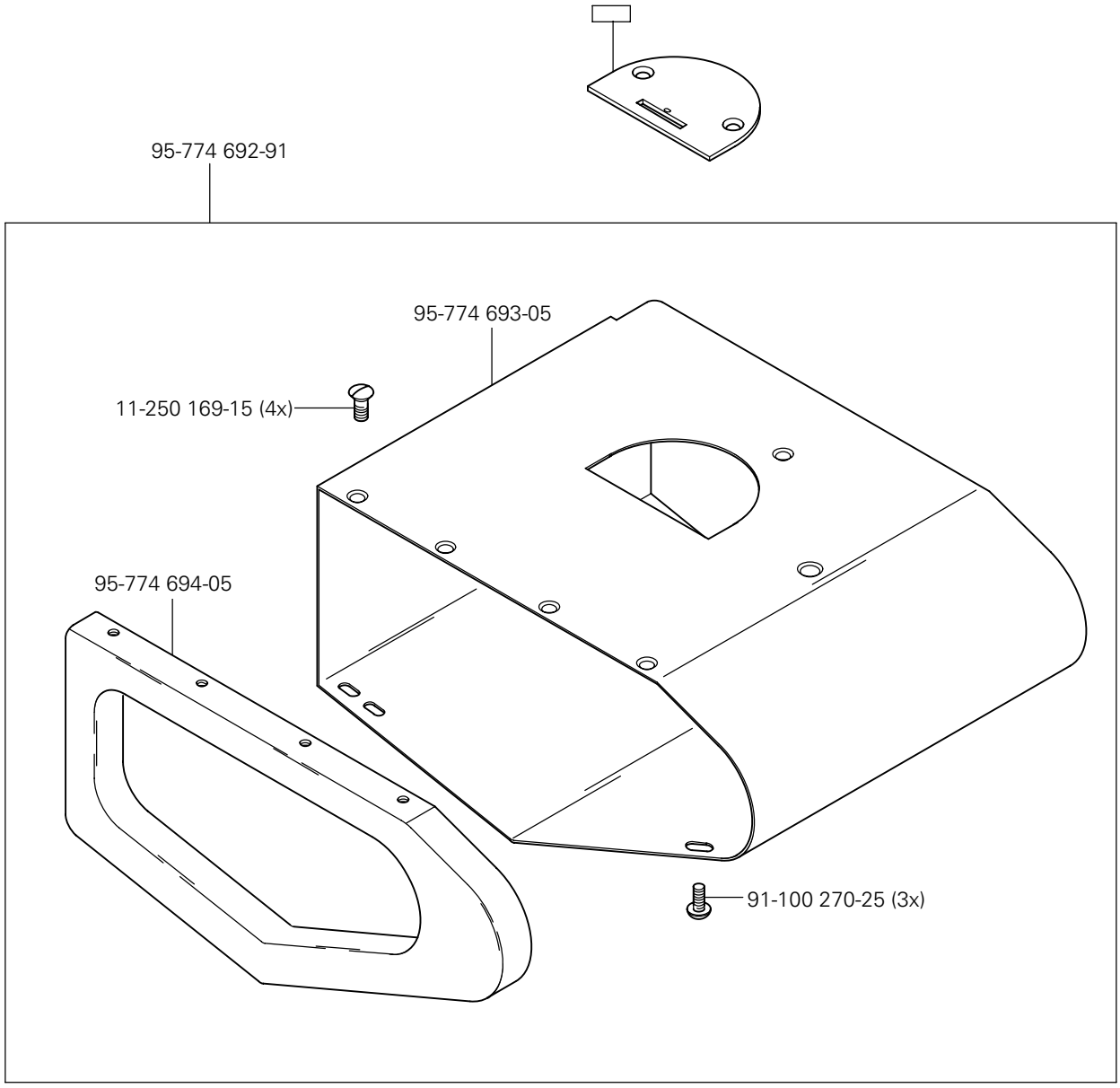


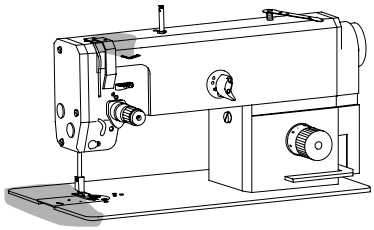
Abweichende Teile der PFAFF 3511-2/01
Different parts for PFAFF 3511-2/01
Piezas de la PFAFF 3511-2/01 que son diferentes
PFAFF 3511-2/01 中有差别的零件





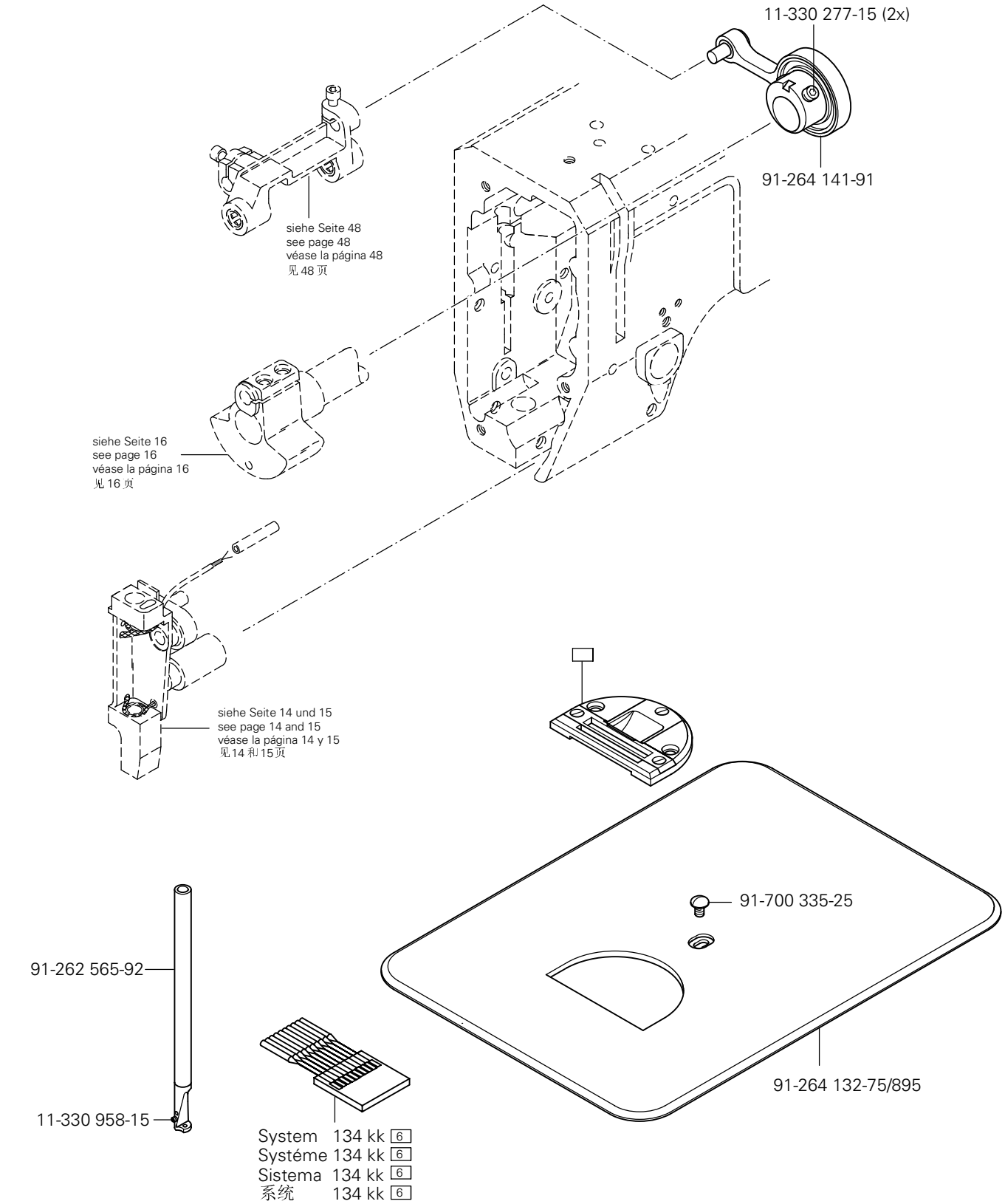



95-774 692-91
95-774 693-05
11-250 169-15 (4x)
95-774 694-05
91-100 270-25 (3x)



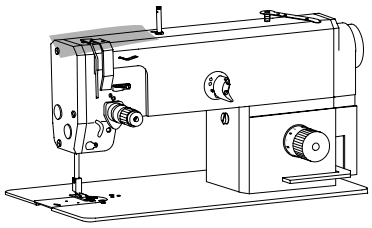
Kanten-Beschneideinrichtung (-731/01)
Edge trimmer (-731/01)
Recortador (-731/01)
切边器 (-731/01)

PFAFF 1181
PFAFF 1183



siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

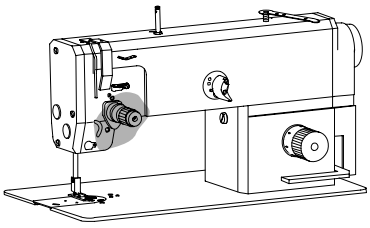
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)



91-264 144-71/895
11-130 233-15 (3x)
11-180 283-25 (4x)
91-069 490-11
91-264 133-75/895
12-640 090-55
91-001 824-05
91-069 496-05
91-069 493-11
11-330 220-15 (3x)
12-640 170-55 (2x)
91-264 136-05
91-169 475-15
12-024 191-15
12-640 200-55
11-330 952-15
siehe Seite 47
see page 47
véase la página 47
见 47 页
11-130 176-15 (2x)
91-069 577-91
40/3
40/3
12-024 191-15
91-264 213-12
11-330 955-15 (2x)
91-069 632-05
91-264 146-05
91-264 214-05
91-069 484-05
91-069 483-05
91-069 630-91
11-130 224-15
11-174 176-15 (2x)
12-005 195-15
91-069 632-05
91-118 711-05
91-264 212-91
91-264 140-15
91-069 599-15
91-069 600-15
91-069 601-15
11-108 135-15 (3x)
11-130 173-15 (2x)
91-069 598-11

(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



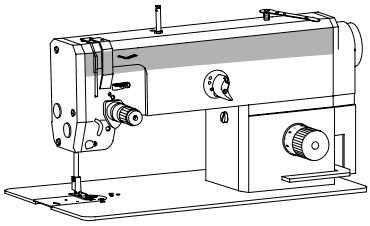
91-264 147-71/895

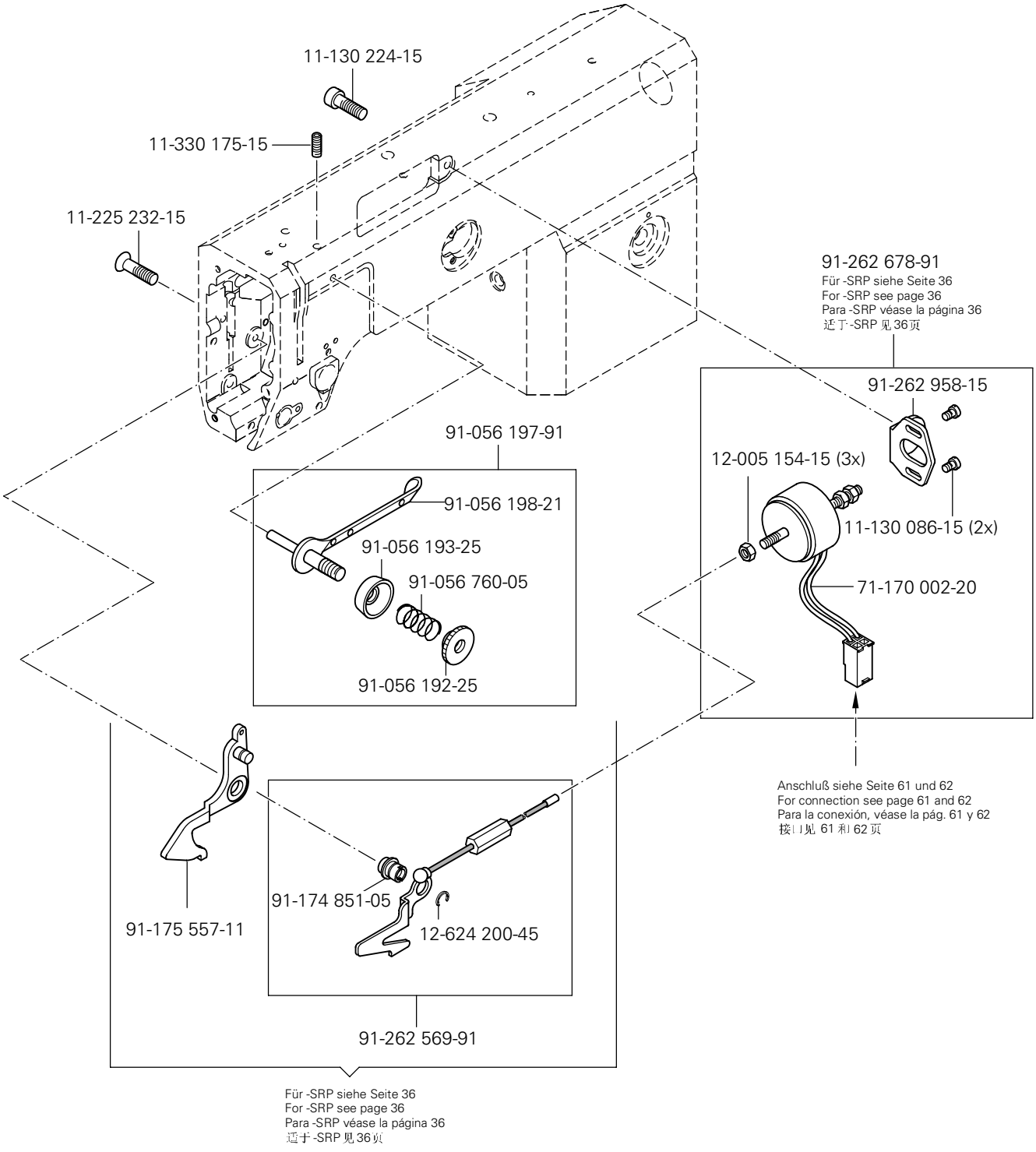
91-701 346-15
91-069 501-15
91-125 009-05
91-069 498-11
91-701 391-15
11-178 172-15
11-330 217-15 (2x)
91-169 474-05
91-264 139-72/895
11-130 227-15
12-610 200-45
91-069 489-12
91-069 486-05
91-069 789-15
91-107 265-05
11-174 176-15 (2x)
11-108 096-15
91-264 134-91

siehe Seite 48
see page 48
véase la página 48
见48 页

40/2
91-069 371-92
11-130 173-15 (2x)

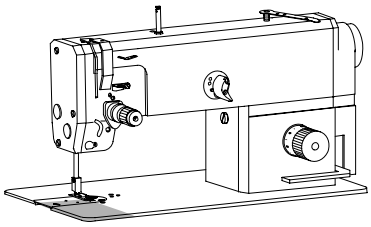
Fadenabschneid-Einrichtung (-900/24) PFAFF 1181;1181- D;1181-G
Thread trimmer (-900/24) PFAFF 1183;1183- D;1183-G
Cortahilos (-900/24) PFAFF 3511
切线器 (-900/24) PFAFF 3701

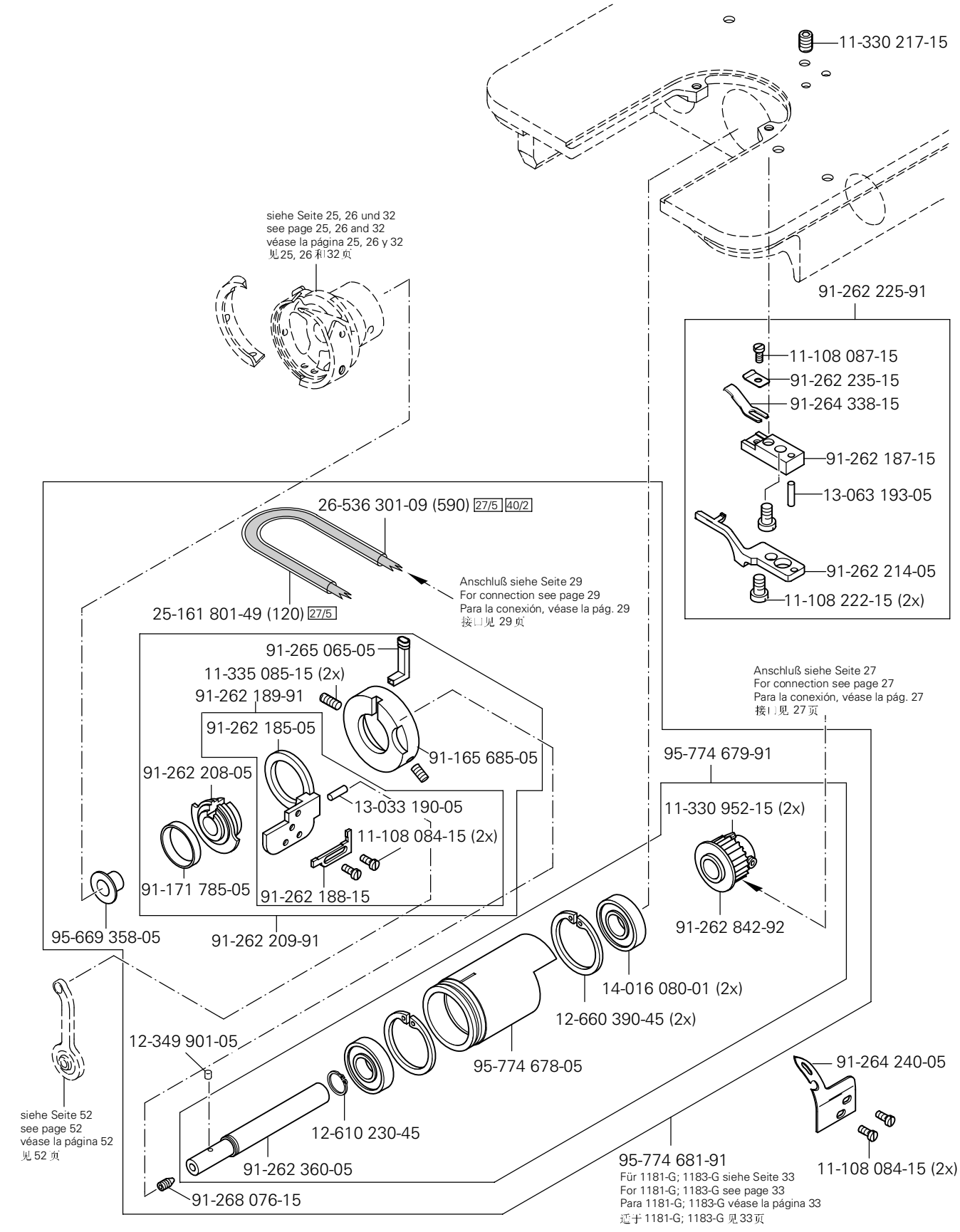




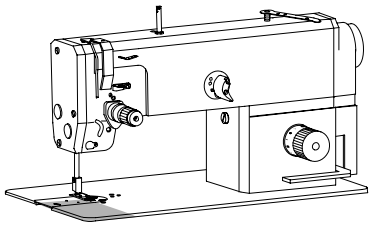
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04章中的相同)

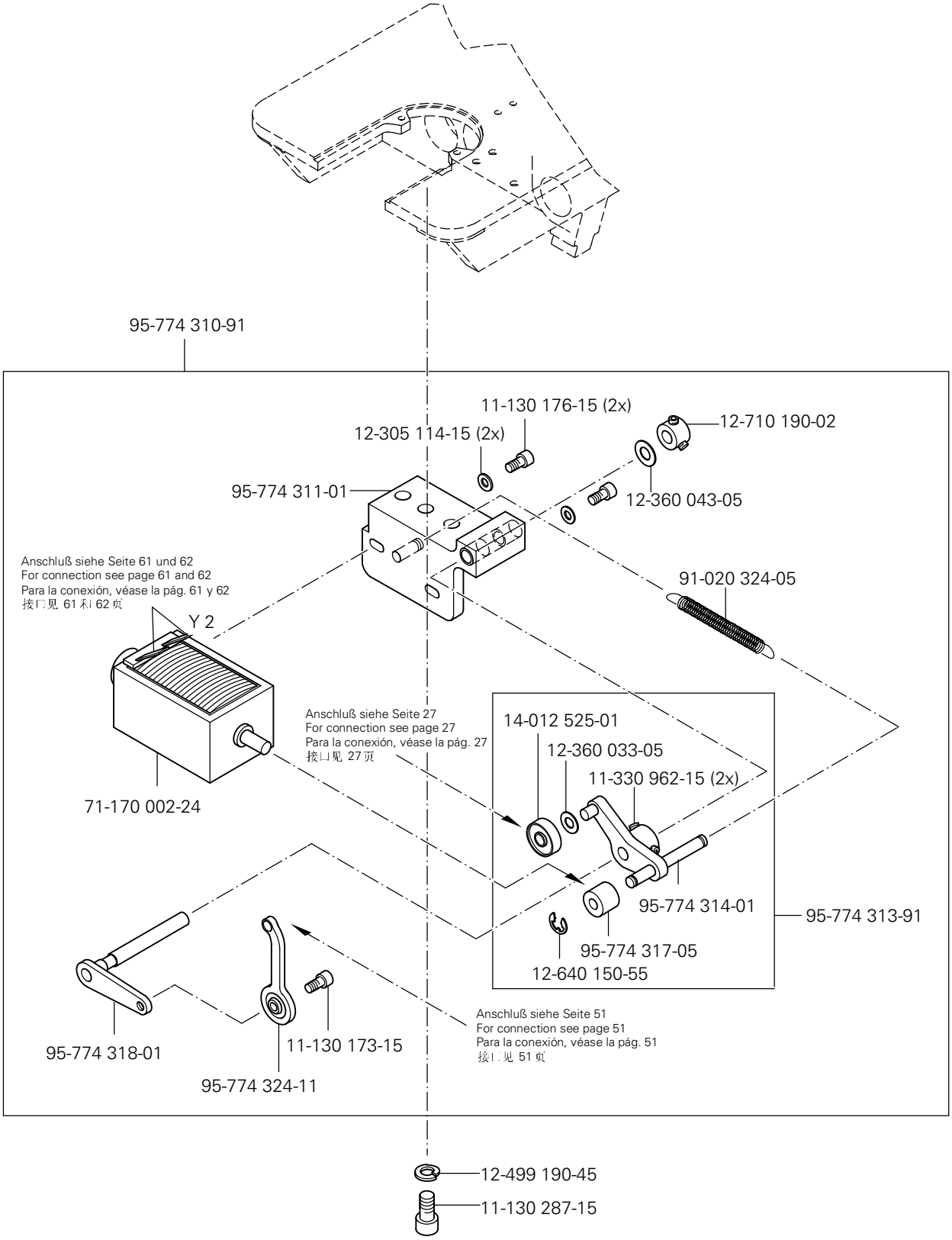
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明




11-330 217-15
siehe Seite 25, 26 und 32
see page 25, 26 and 32
véase la página 25, 26 y 32
见25, 26和32页
91-262 225-91
11-108 087-15
91-262 235-15
91-264 338-15
91-262 187-15
13-063 193-05
91-262 214-05
11-108 222-15 (2x)
26-536 301-09 (590) 27/5 40/2
Anschluß siehe Seite 29
For connection see page 29
Para la conexión, véase la pág. 29
接口见 29 页
25-161 801-49 (120) 27/5
91-265 065-05
11-335 085-15 (2x)
91-262 189-91
91-262 185-05
91-165 685-05
91-262 208-05
13-033 190-05
11-108 084-15 (2x)
91-171 785-05
91-262 188-15
91-262 209-91
95-669 358-05
Anschluß siehe Seite 27
For connection see page 27
Para la conexión, véase la pág. 27
接口见 27 页
95-774 679-91
11-330 952-15 (2x)
91-262 842-92
14-016 080-01 (2x)
12-660 390-45 (2x)
12-349 901-05
95-774 678-05
91-264 240-05
12-610 230-45
91-262 360-05
11-108 084-15 (2x)
95-774 681-91
Für 1181-G; 1183-G siehe Seite 33
For 1181-G; 1183-G see page 33
Para 1181-G; 1183-G véase la página 33
适于 1181-G; 1183-G 见33页
91-268 076-15
siehe Seite 52
see page 52
véase la página 52
见 52 页

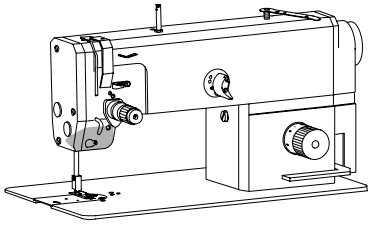
Fadenabschneid-Einrichtung (-900/24) PFAFF 1181;1181- D;1181-G
Thread trimmer (-900/24) PFAFF 1183;1183- D;1183-G
Cortahilos (-900/24) PFAFF 3511
切线器 (-900/24) PFAFF 3701

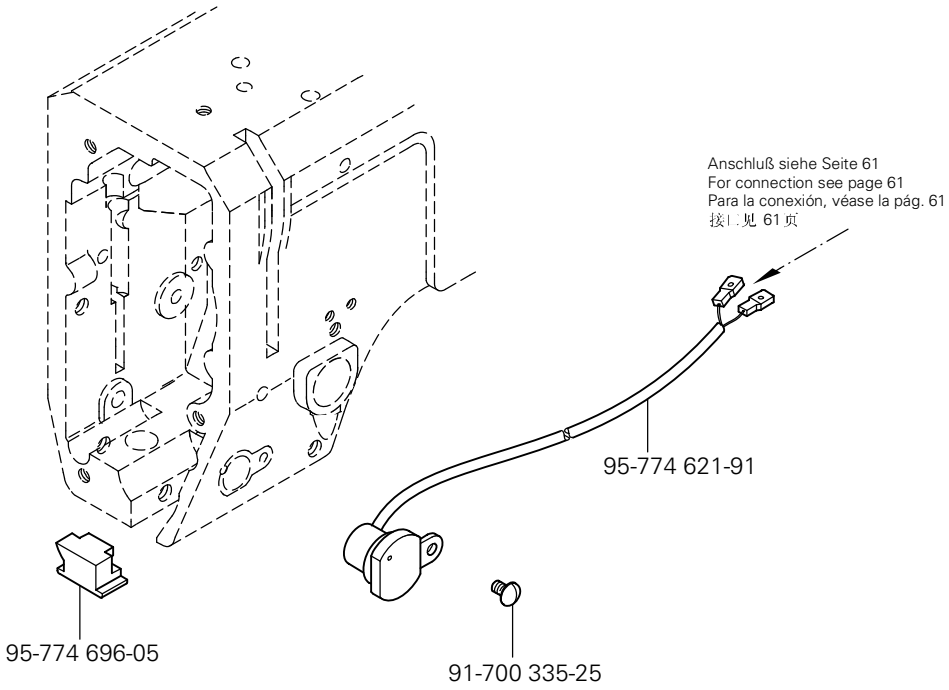


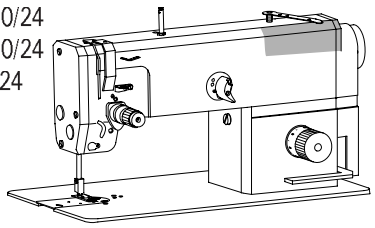


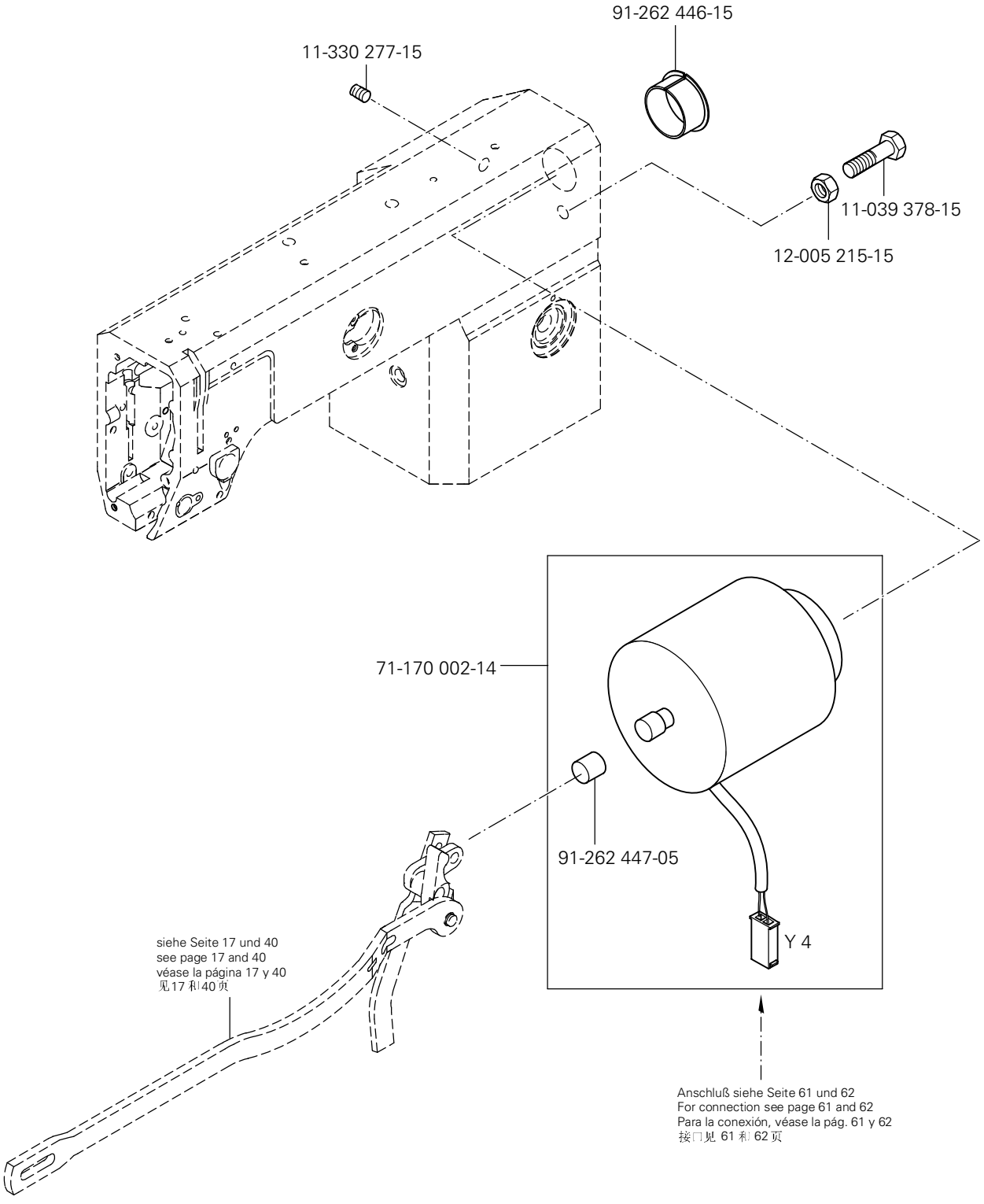
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



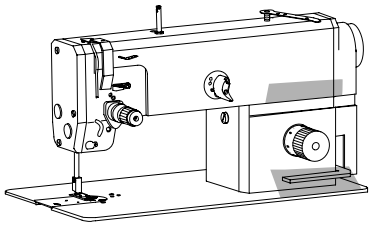

Anschluß siehe Seite 61
For connection see page 61
Para la conexión, véase la pág. 61
接口见 61 页
95-774 621-91
95-774 696-05
91-700 335-25

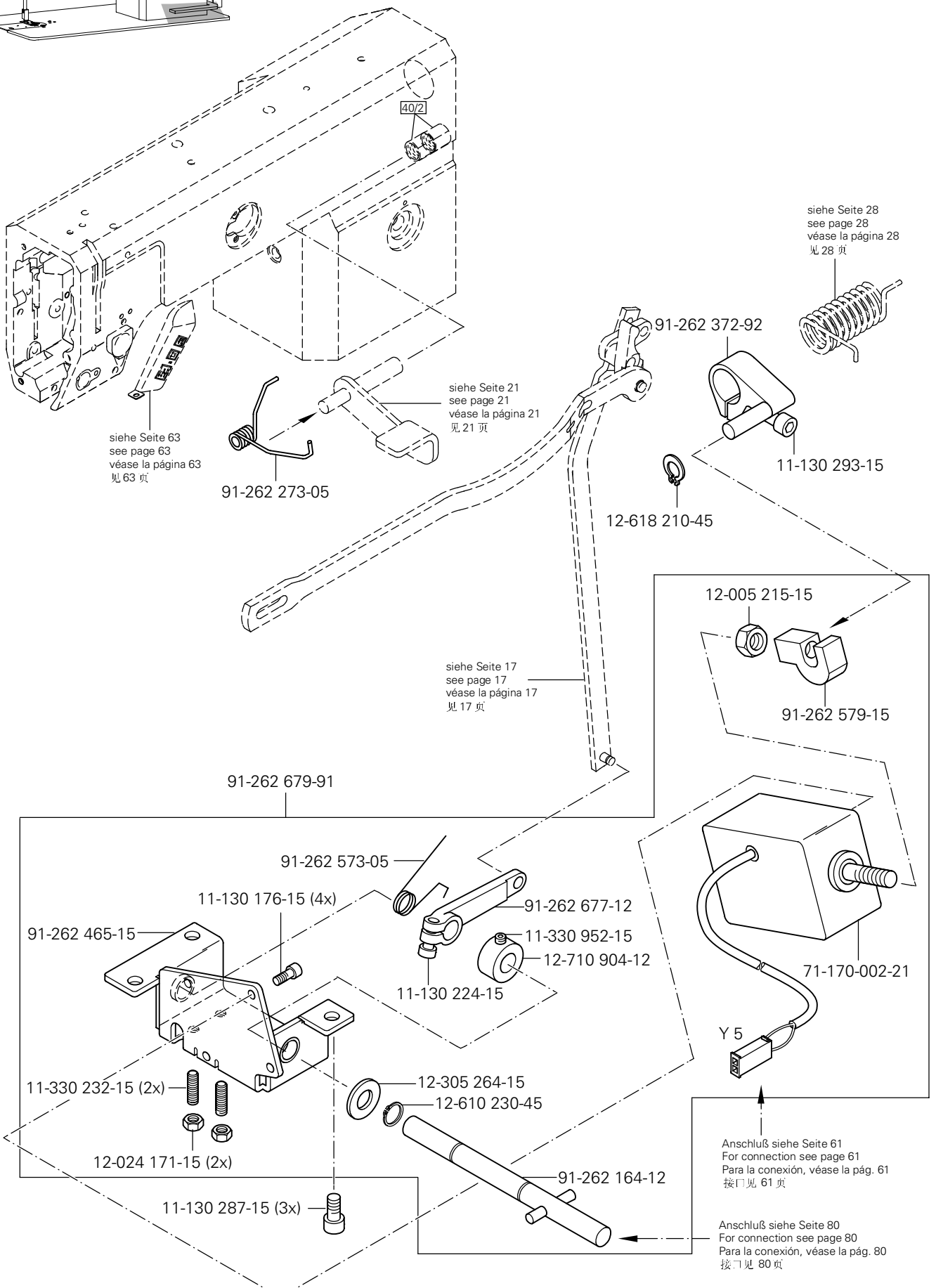


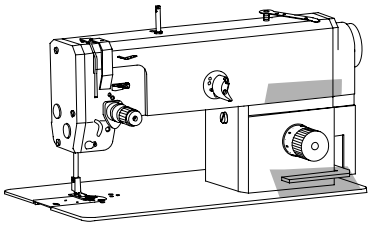


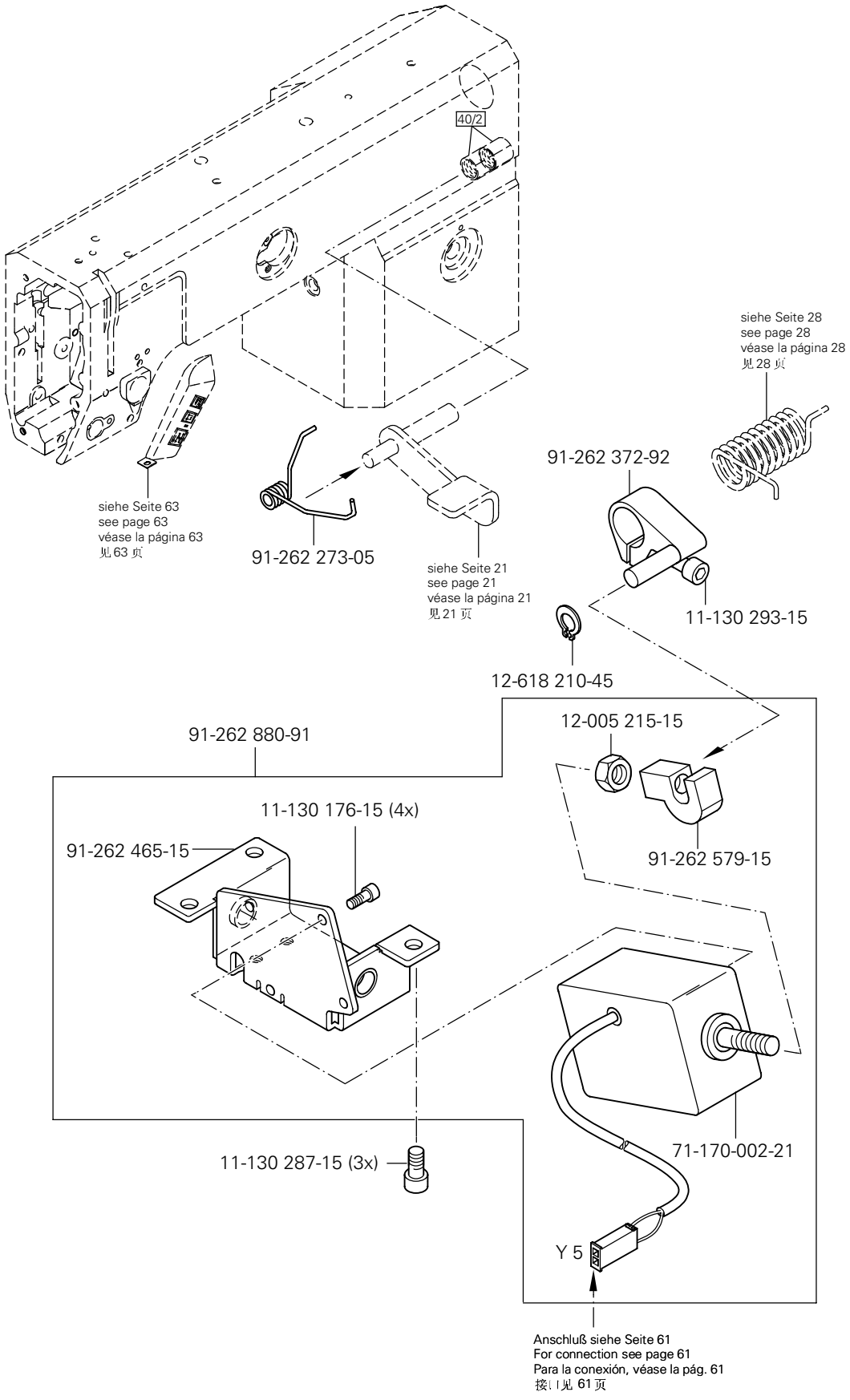
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
（其它零件与3.01至3.04章中的相同）

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



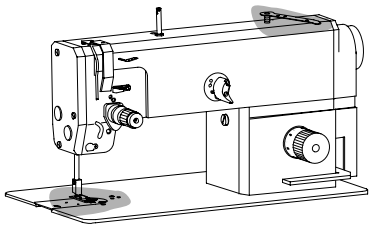

40/2
siehe Seite 28
see page 28
véase la página 28
见 28 页
91-262 372-92
11-130 293-15
12-618 210-45
siehe Seite 21
see page 21
véase la página 21
见 21 页
siehe Seite 63
see page 63
véase la página 63
见 63 页
91-262 273-05
12-005 215-15
91-262 579-15
siehe Seite 17
see page 17
véase la página 17
见 17 页
91-262 679-91
91-262 573-05
11-130 176-15 (4x)
91-262 677-12
91-262 465-15
11-330 952-15
12-710 904-12
11-130 224-15
71-170-002-21
Y 5
11-330 232-15 (2x)
12-305 264-15
12-610 230-45
12-024 171-15 (2x)
91-262 164-12
11-130 287-15 (3x)
Anschluß siehe Seite 61
For connection see page 61
Para la conexión, véase la pág. 61
接口见 61 页
Anschluß siehe Seite 80
For connection see page 80
Para la conexión, véase la pág. 80
接口见 80 页

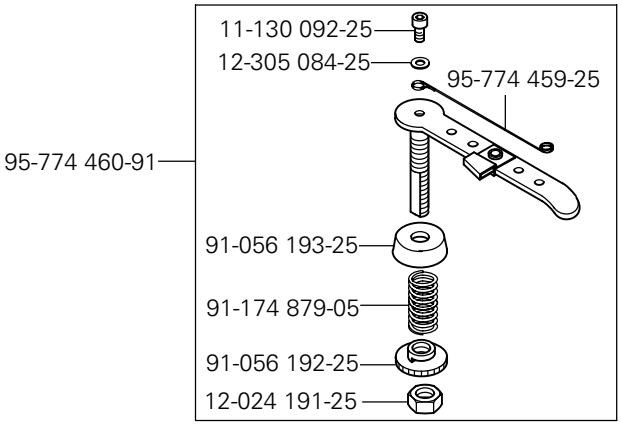




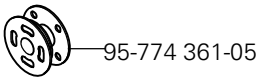
(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3.01至3.04 章中的相同)

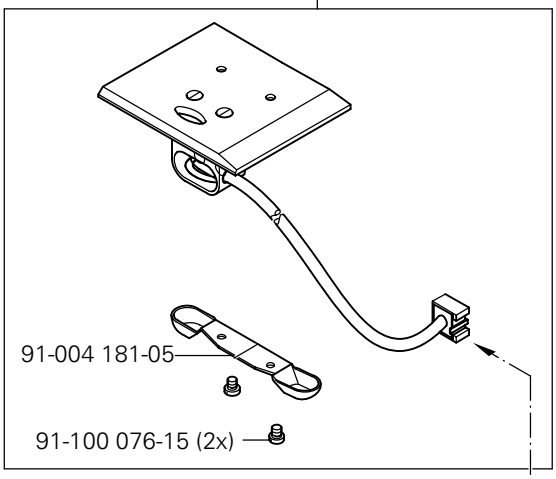
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明





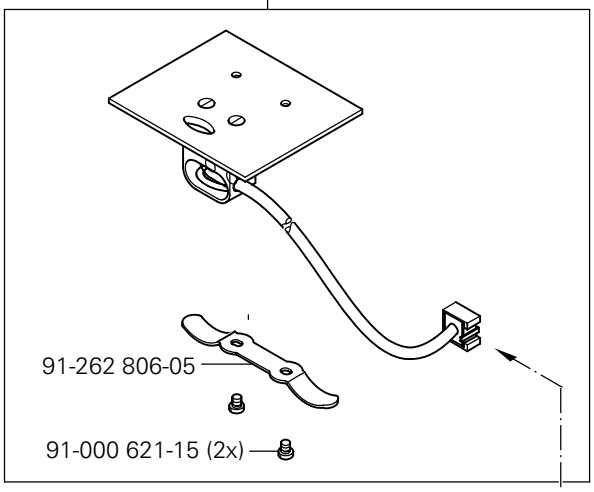
95-774 525-91 (PFAFF 1181)



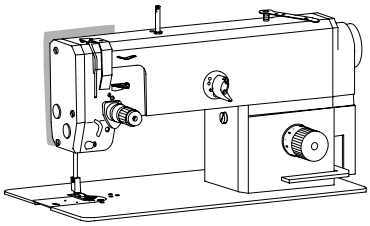


Anschluß siehe Seite 71, 73 und 75
For connection see page 71, 73 and 75
Para la conexión, véase la pág. 71, 73 y 75
接口见 71, 73 和 75页

95-774 524-91 (PFAFF 1183)



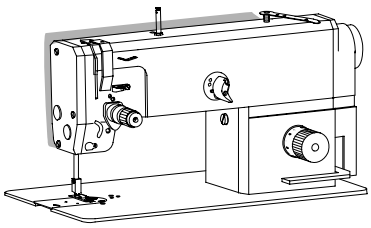
Anschluß siehe Seite 71, 73 und 75
For connection see page 71, 73 and 75
Para la conexión, véase la pág. 71, 73 y 75
接口见 71, 73 和 75页

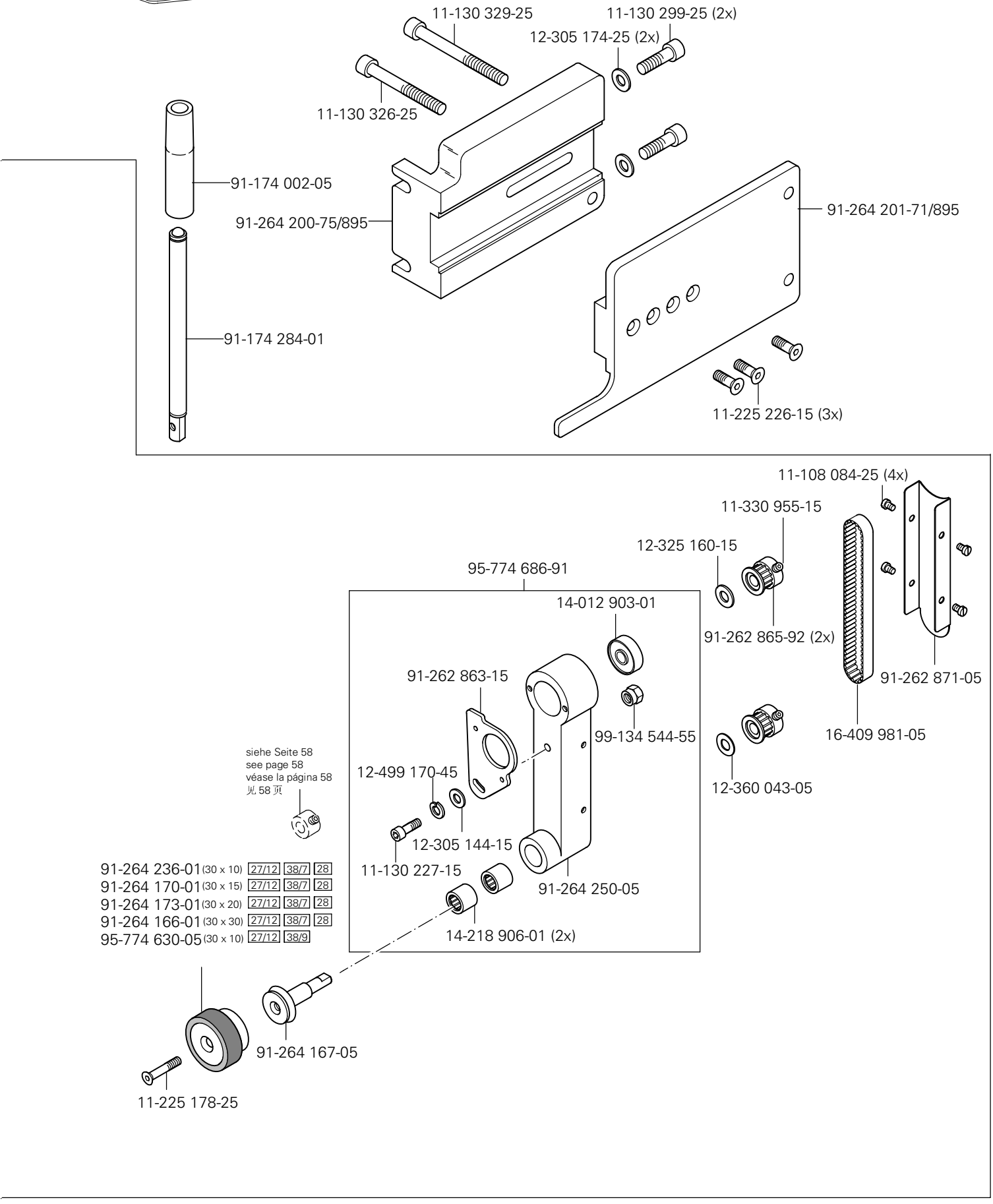


11-341 904-15
95-774 673-71/895
91-175 265-12
siehe Seite 12
see page 12
véase la página 12
见 12 页
91-262 983-75/699
11-225 292-15 (2x)
Anschluß siehe Seite 75
For connection see page 75
Para la conexión, véase la pág. 75
接口见 75页
91-262 916-91
95-784 321-91
X 8
Anschluß siehe Seite 75
For connection see page 75
Para la conexión, véase la pág. 75
接口见 75页
11-130 170-25 (2x)
95-774 672-05
95-774 670-75/895
11-130 176-15 (2x)
12-305 114-15 (2x)
X 4/A
11-108 021-15 (2x)
91-262 872-91
M 2
91-292 276-91
71-120 006-33
91-262 919-05
(2x)
11-130 173-15
11-130 179-15 (4x)
12-305 144-15 (4x)
71-370 001-35
12-005 215-15
95-774 647-05
71-520 000-70
12-360 064-15
11-330 955-15 (4x)
11-130 176-15 (3x)
91-262 920-91
95-774 669-12
12-325 160-15
11-330 277-15 (2x)
11-108 858-15 (2x)
11-330 166-15
14-012 903-01
95-774 685-15
91-262 860-92
12-024 191-15
11-714 031-91
14-012 903-01 (2x)
11-330 955-15
91-262 924-05
siehe Seite 59
see page 59
véase la página 59
见 59 页
91-262 857-15
12-710 913-12

(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3. 01至3. 04章中的相同)

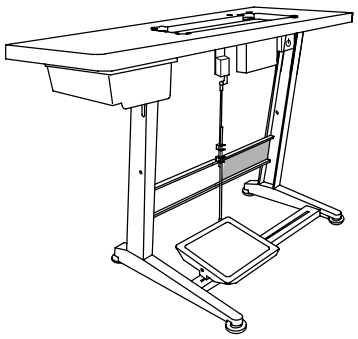
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

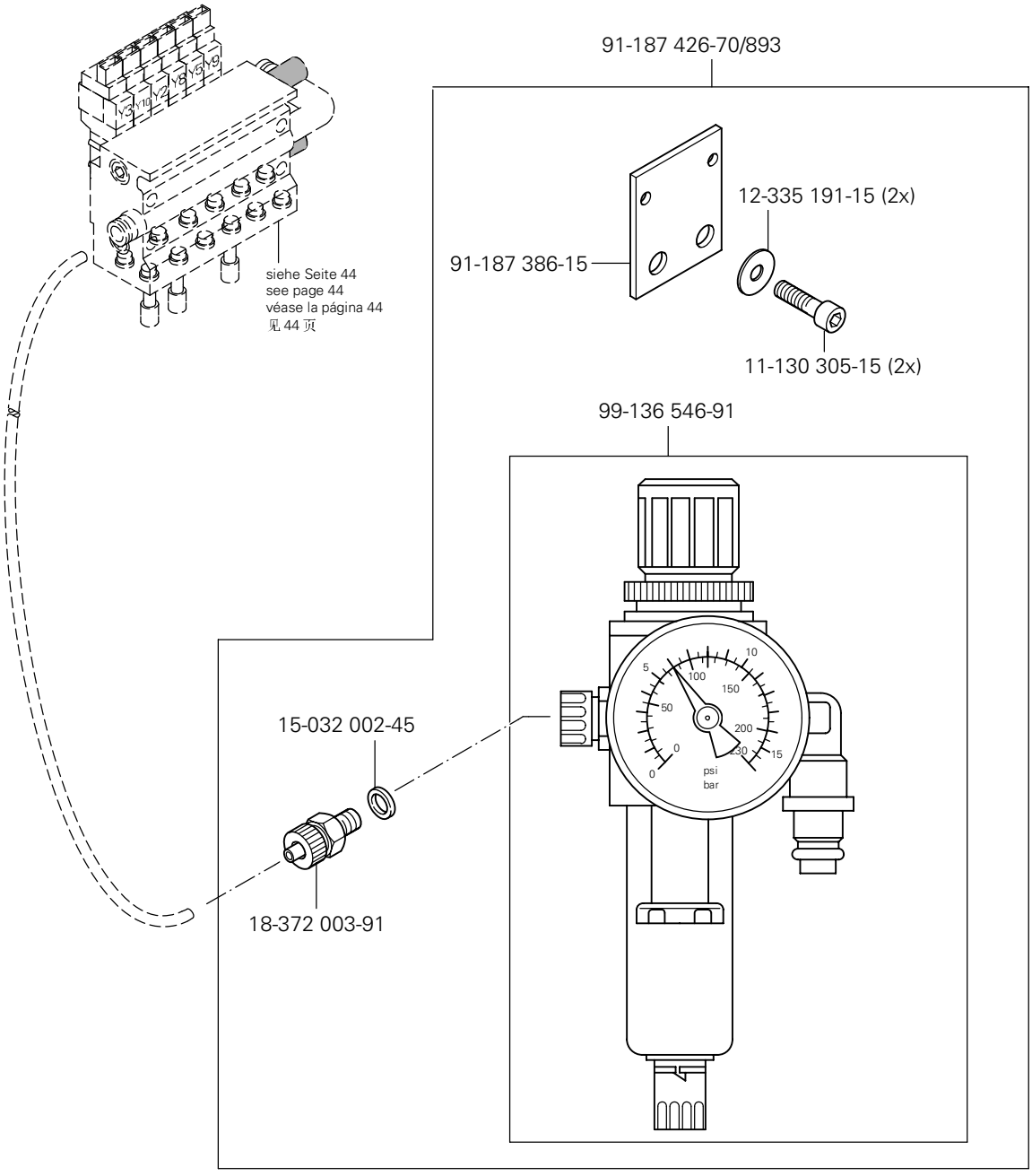




siehe Seite 58
see page 58
véase la página 58
见 58 页

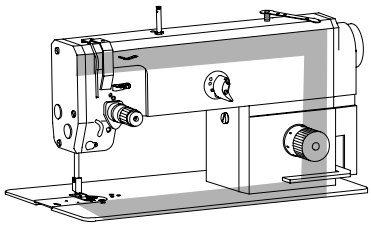
91-264 236-01 (30 x 10) 27/12 38/7 28
91-264 170-01 (30 x 15) 27/12 38/7 28
91-264 173-01 (30 x 20) 27/12 38/7 28
91-264 166-01 (30 x 30) 27/12 38/7 28
95-774 630-05 (30 x 10) 27/12 38/9





(die sonstigen Teile wie in Register 3.01 bis 3.04)
(for all other parts see Sections 3.01 to 3.04)
(las demás piezas como en los registros 3.01 al 3.04)
(其它零件与3. 01至3. 04章中的相同)

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



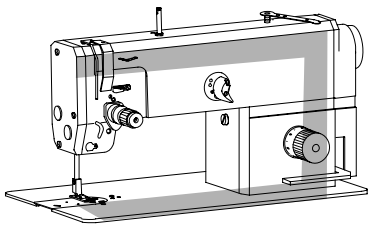
Kabelbaum zum Oberteil
Cable tree to sewing head
Mazo de cables para el cabezal
上部机器电缆束

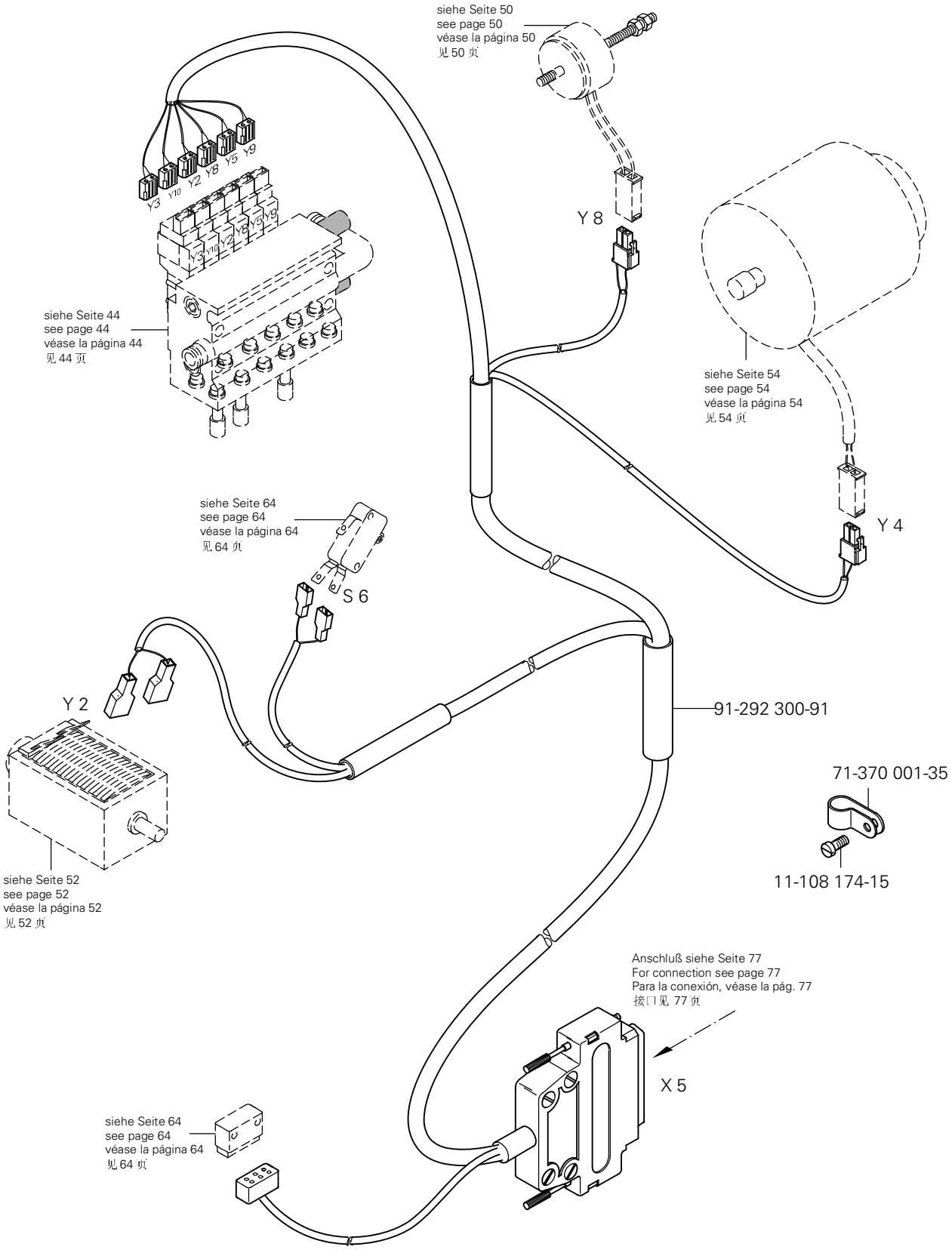
PFAFF 1181-900/24;1181-D-900/24;1181-G-900/24
PFAFF 1183-900/24;1183-D-900/24;1183-G-900/24
PFAFF 1181-SRP-900/24;1183-SRP-900/24
PFAFF 3701

16.01

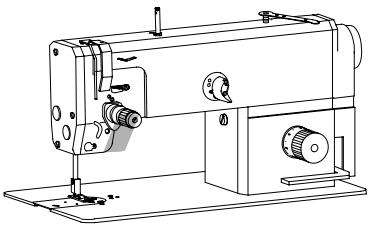
Y 3
siehe Seite 53
see page 53
véase la página 53
见 53 页
siehe Seite 36 und 50
see page 36 and 50
véase la página 36 y 50
见36 和50页
Y 8
siehe Seite 54
see page 54
véase la página 54
见 54 页
A4
siehe Seite 63
see page 63
véase la página 63
见 63 页
siehe Seite 64
see page 64
véase la página 64
见 64 页
S 6
Y 4
Y 2
95-784 333-91
siehe Seite 55 und 56
see page 55 and 56
véase la página 55 y 56
见55 和56页
71-370 001-35
11-108 174-15
siehe Seite 52
see page 52
véase la página 52
见 52 页
Y 5
Y1S4
Anschluß siehe Seite 69; 71; 73 und 75
For connection see page 69; 71; 73 and 75
Para la conexión, véase la pág. 69; 71; 73 y 75
接口见 69; 71; 73 和 75 页
siehe Seite 82
see page 82
véase la página 82
见 82 页
X 5
siehe Seite 64
see page 64
véase la página 64
见 64 页

siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



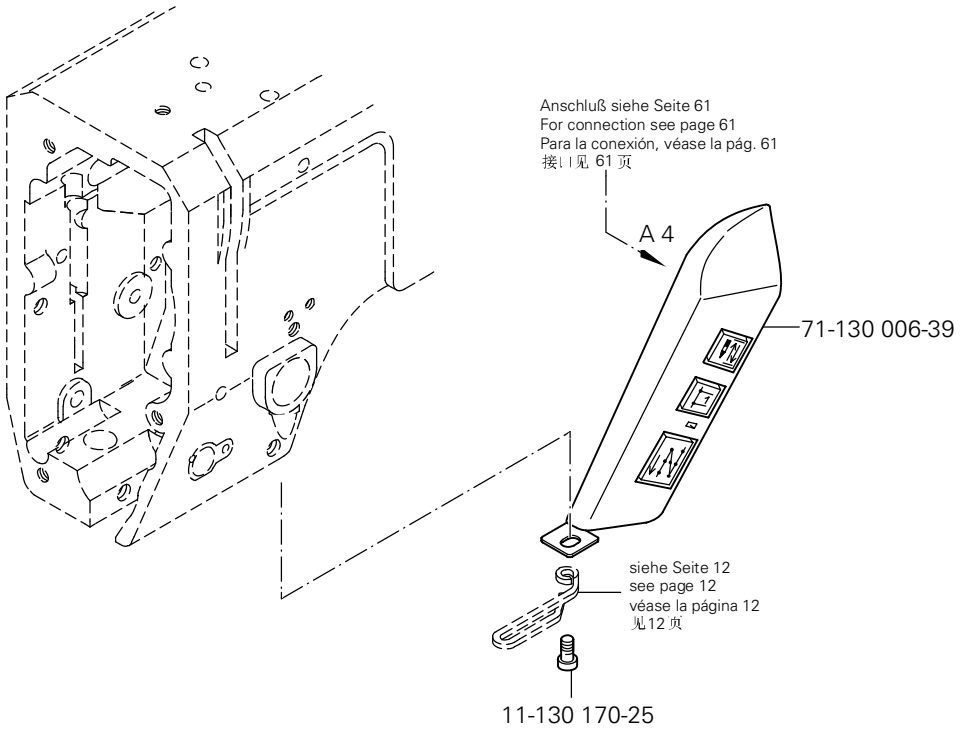


siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



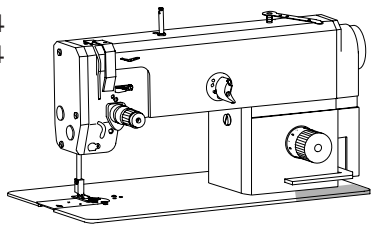
Tastschalter
Push-button
Interruptor pulsador
按钮开关

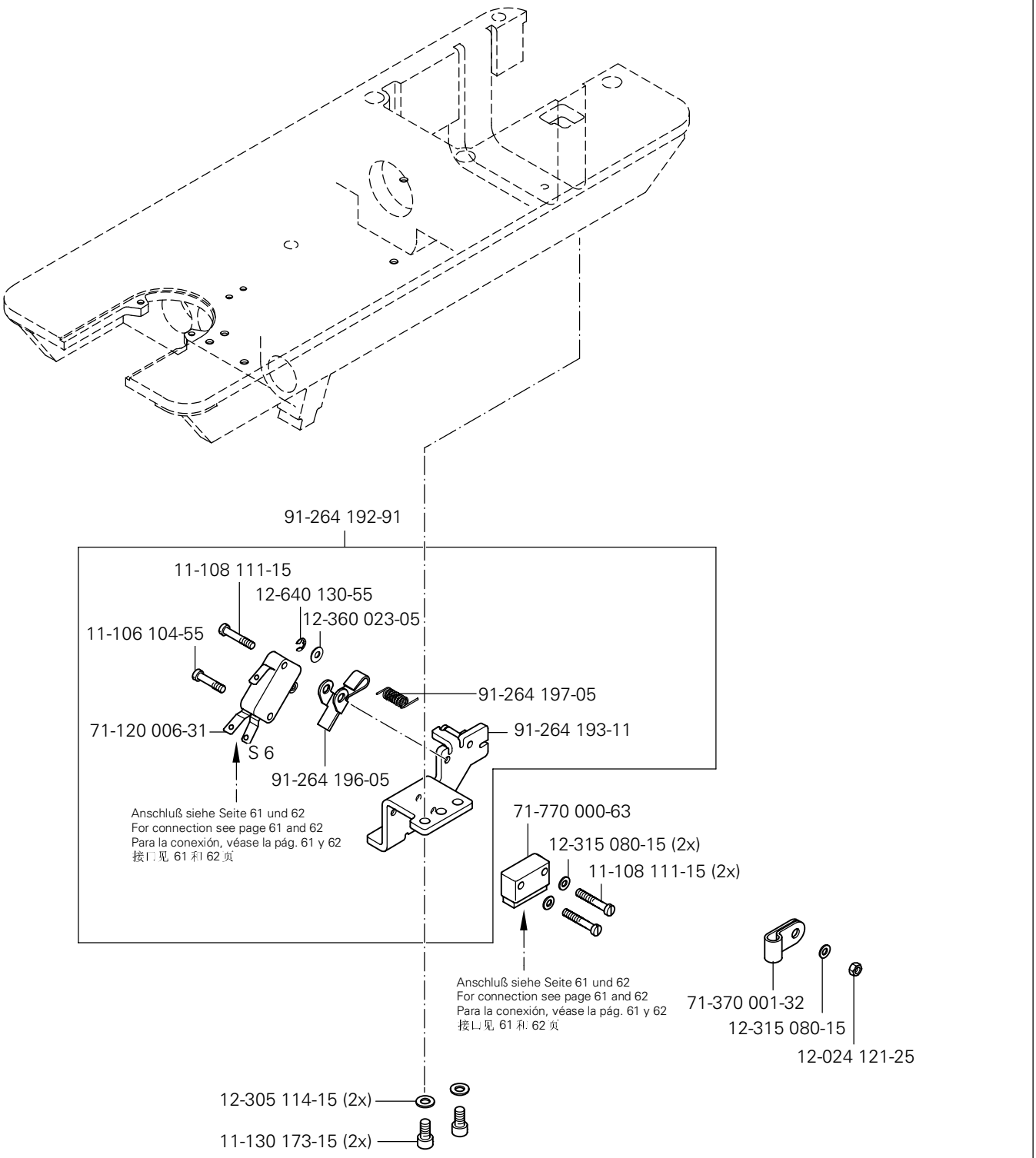
PFAFF 1181-911/37;1181- D-911/37
PFAFF 1183-911/37;1183-D-911/37
PFAFF 3701



Oberteilerkennung und Einschaltsperre
Sewing head identification and start inhibitor
Detecci´0n de la parte superior y bloqueo de arranque
上部机器识别和起动闭锁

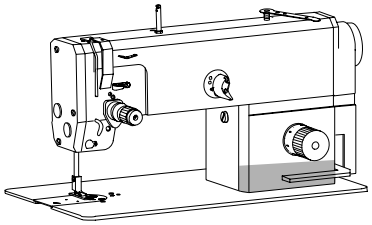
PFAFF 1181-900/24
PFAFF 1183-900/24
PFAFF 3511-2/01
PFAFF 3701-4/11





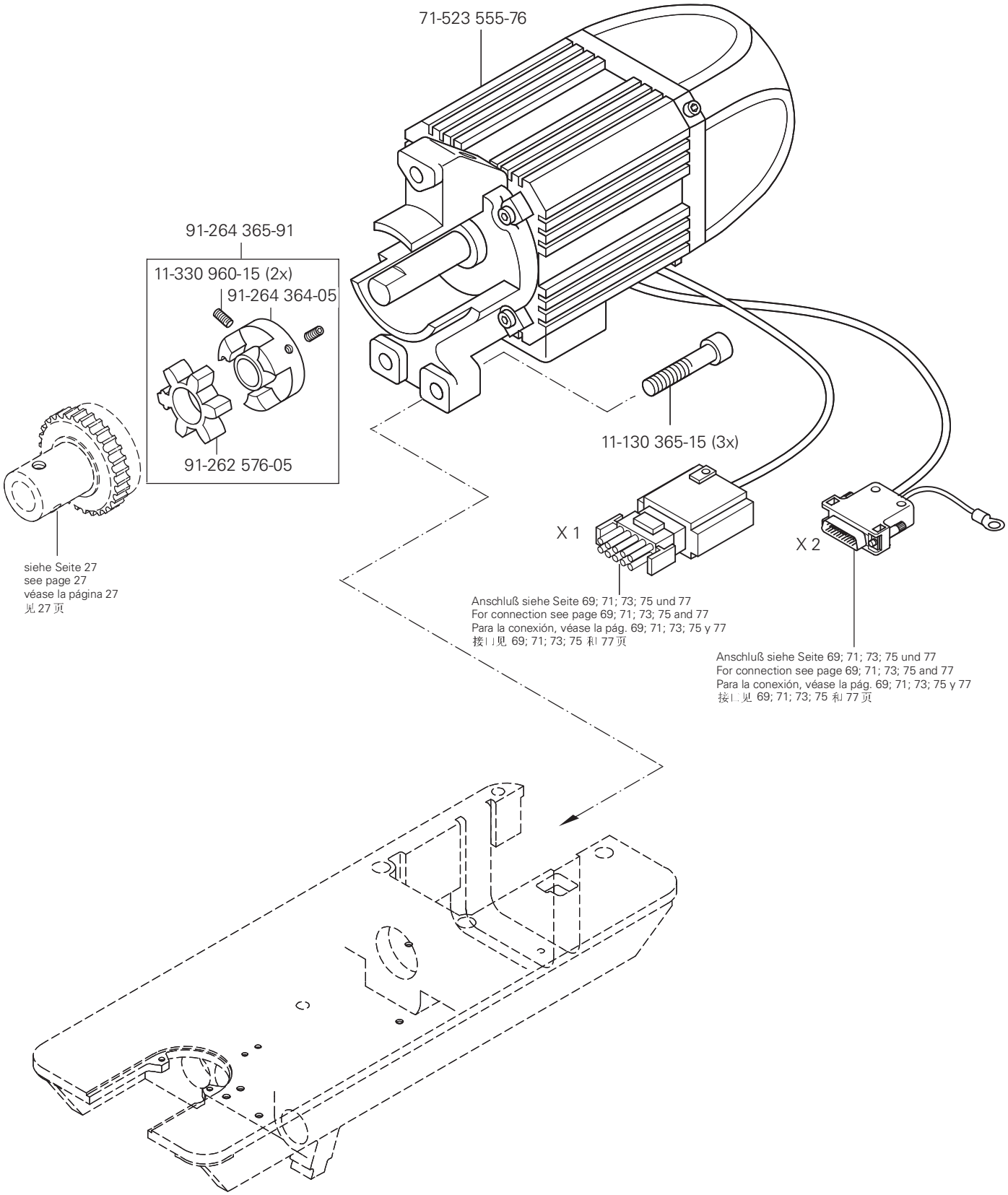
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

PFAFF



Einbaumotor PFAFF 1181-900/24
Built-in motor PFAFF 1183-900/24
Motor incorporado PFAFF 3511-2/01
内装式电机 PFAFF 3701-4/11

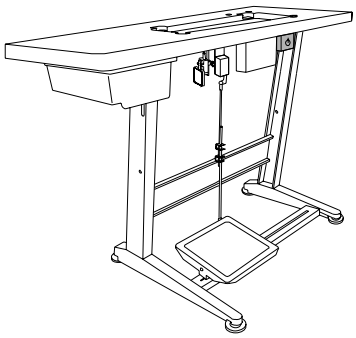
16.04

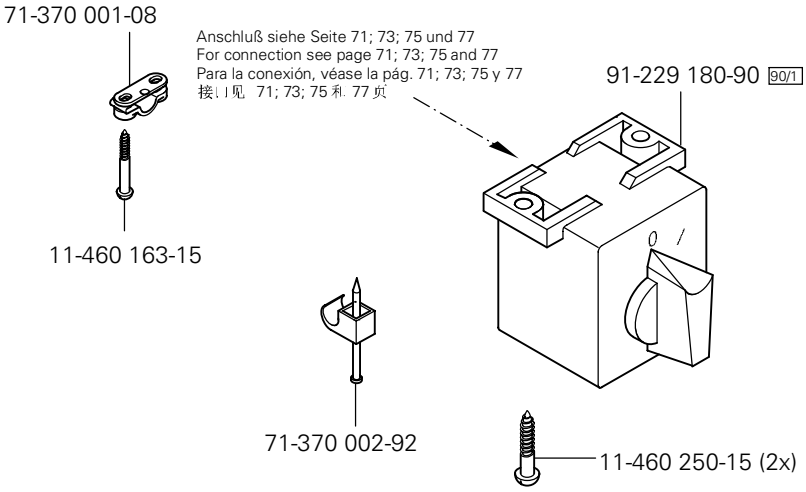


16.05

Motor-Hauptschalter
Main switch
Interruptor principal
电机主开关

PFAFF 1181
PFAFF 1183
PFAFF 3511
PFAFF 3701

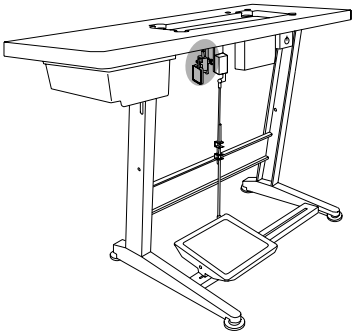


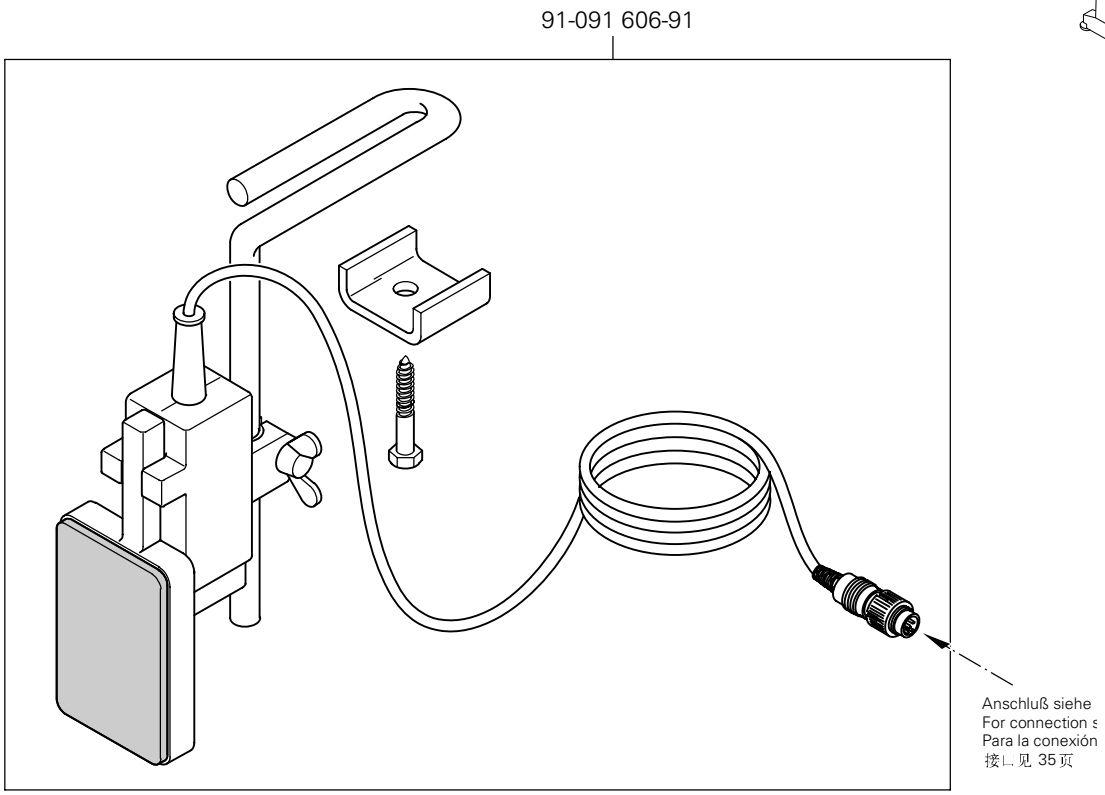


16.06

Knietaster mit Leitung
Knee switch with cable
Interruptor de rodillera con cable
带电缆膝键

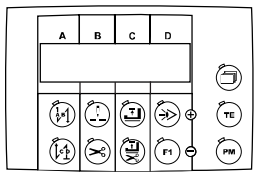
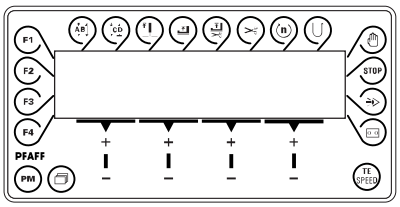
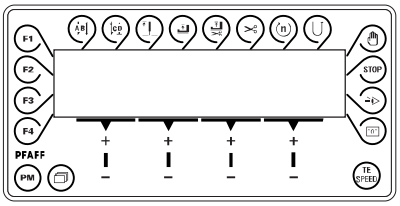
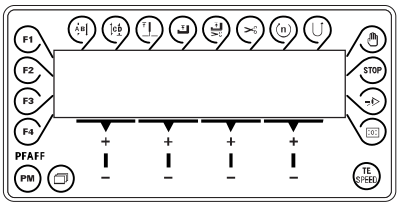
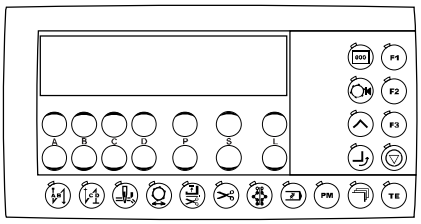
PFAFF1181 SRP-900/24
PFAFF1183 SRP-900/24





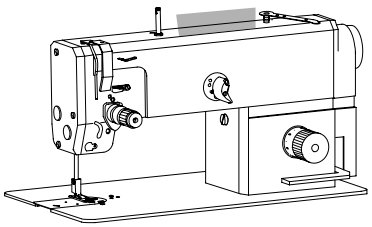
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

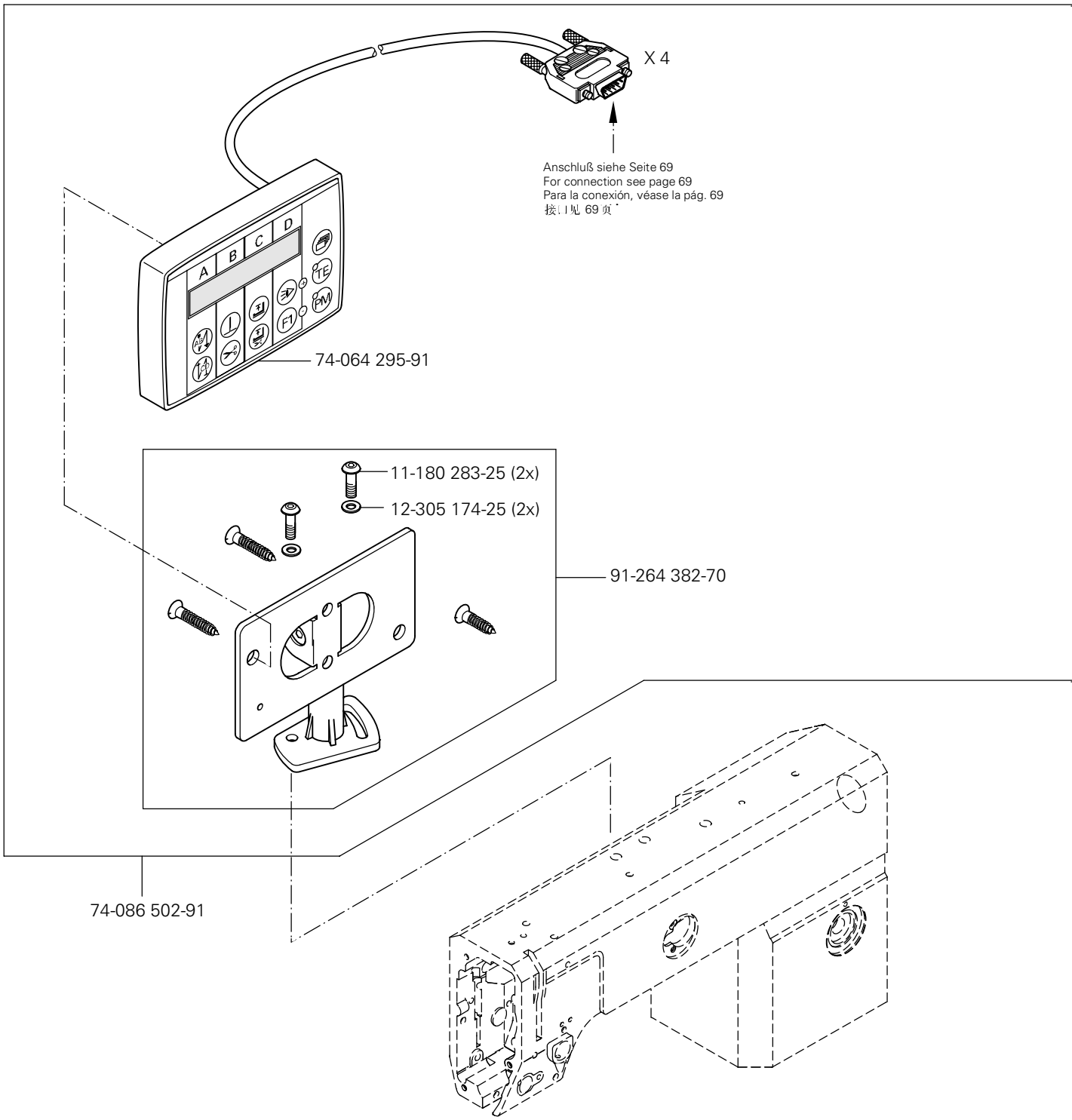
PFAFF

Klasse Class Clase 机型	Steuerungspaket Control package Paquete de control 控制组件	Abbildung siehe Seite: Stitching margin Margen de costura 图见页号
1181; 1183 Quick-PicoTop 	Quick-PicoDrive mit P40PD **Best.-Nr.** Part number N° de pedido 订货号 74-086 502-91	68; 69
1181; 1183 Quick-BDF S2 	Quick-EcoDrive mit P40ED-A **Best.-Nr.** Part number N° de pedido 订货号 71-590 007-84	70; 71
1181-SRP; 1183-SRP Quick-BDF S2 	Quick-EcoDrive mit P50ED **Best.-Nr.** Part number N° de pedido 订货号 71-590 007-89	72; 73
1181-948/26; 1183-948/26; 3701 Quick-BDF S2 	Quick-EcoDrive mit P350ED **Best.-Nr.** Part number N° de pedido 订货号 71-590 008-35	74; 75
3511 Quick-BDF S3 	Quick-EcoDrive mit P310ED-A **Best.-Nr.** Part number N° de pedido 订货号 71-590 008-33	76; 77

Steuerungspaket Quick-PicoDrive mit P40 PD
Control package Quick-PicoDrive with P40 PD
Paquete de control Quick-PicoDrive con P40 PD
控制组件 Quick-PicoDrive 带 P40 PD

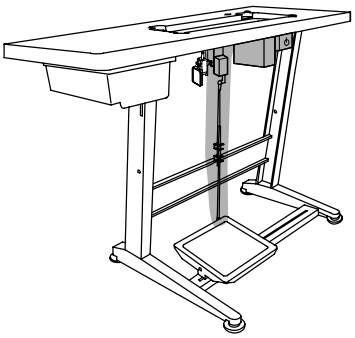
PFAFF 1181
PFAFF 1183





siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

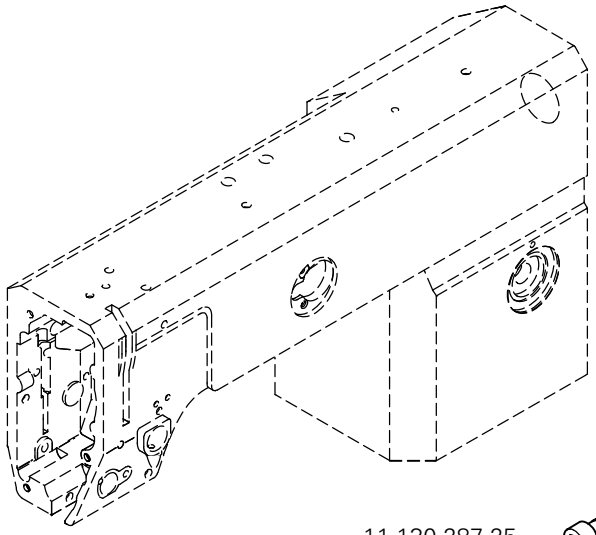
PFAFF



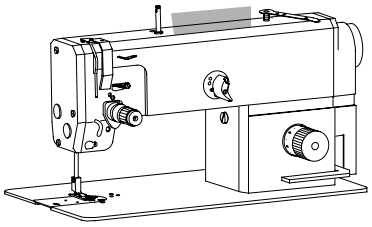
Steuerungspaket Quick-PicoDrive mit P40 PD
Control package Quick-PicoDrive with P40 PD
Paquete de control Quick-PicoDrive con P40 PD
控制组件 Quick-PicoDrive 带 P40 PD

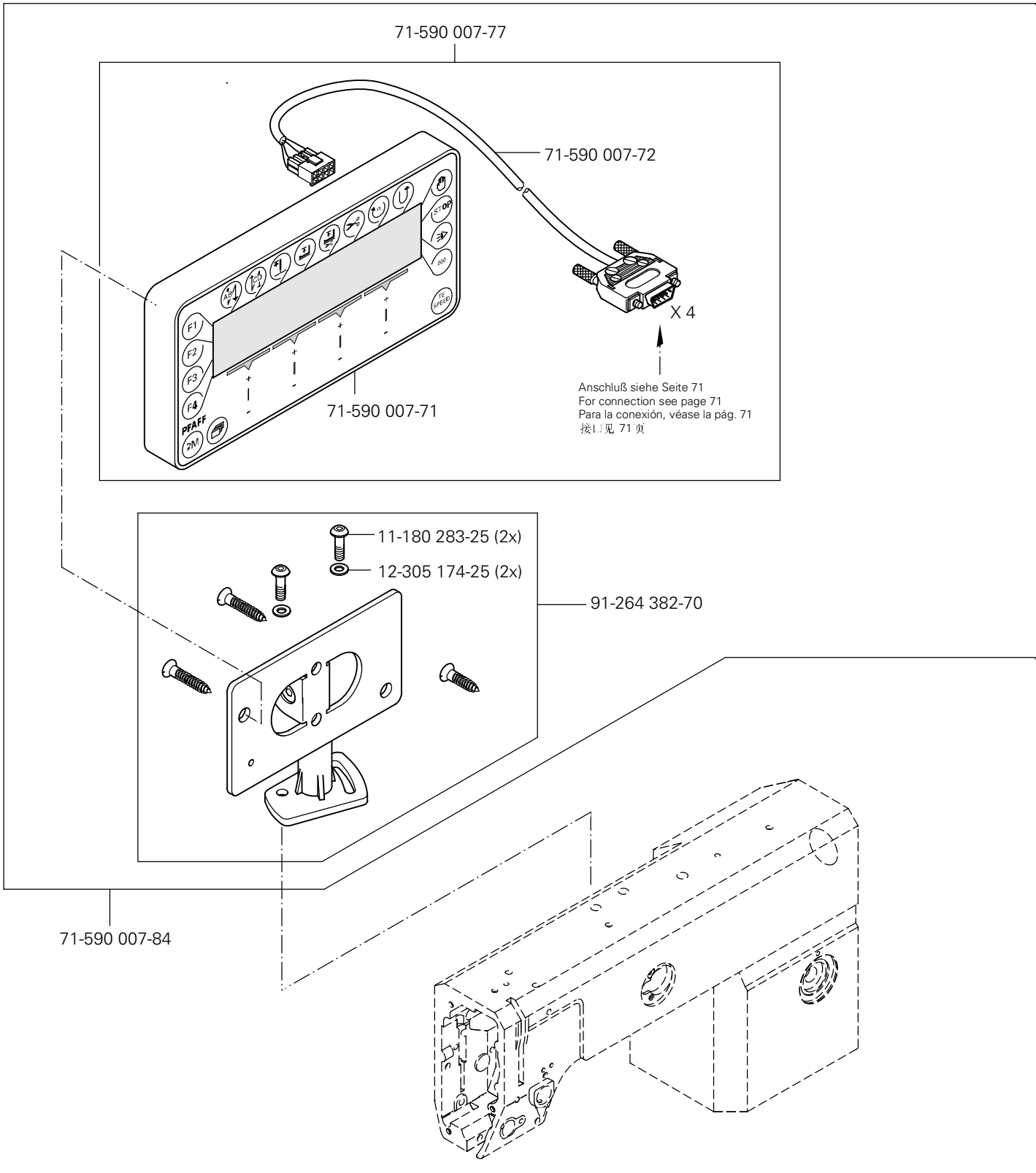
PFAFF 1181
PFAFF 1183

16.08



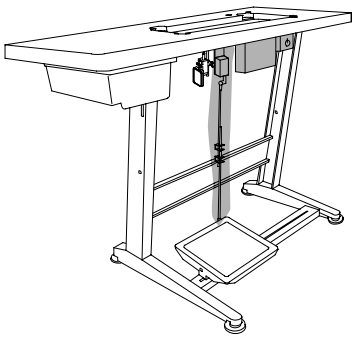
Steuerungspaket Quick-EcoDrive mit P40 ED-A
Control package Quick-EcoDrive with P40 ED-A
Paquete de control Quick-EcoDrive con P40 ED-A PFAFF 1181
控制组件 Quick-EcoDrive 带 P40 ED-A PFAFF 1183





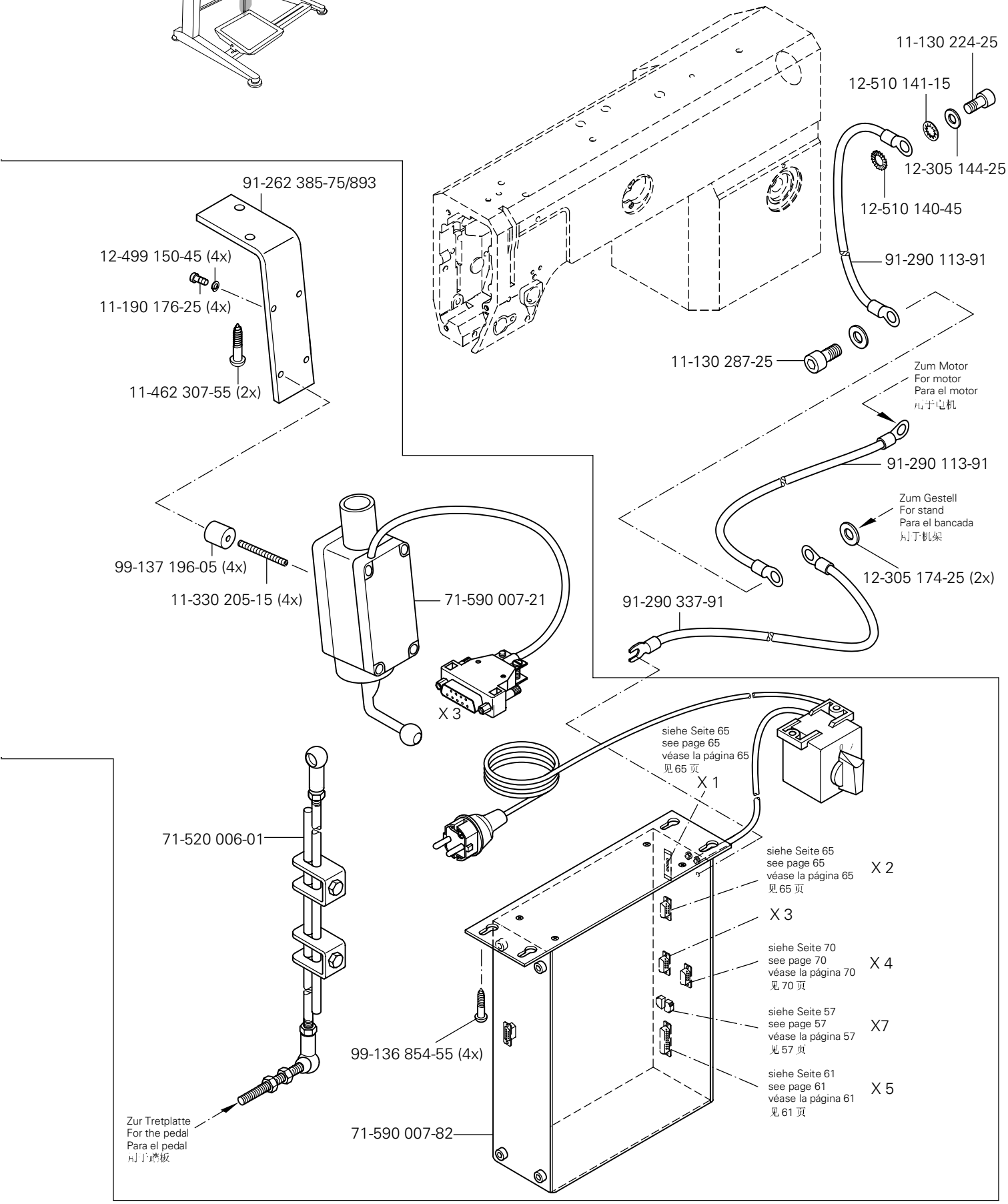
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

PFAFF



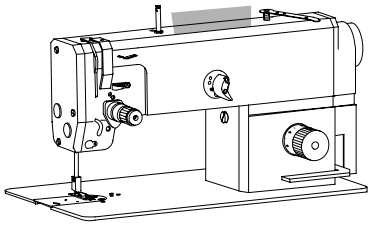
Steuerungspaket Quick-EcoDrive mit P40 ED-A
Control package Quick-EcoDrive with P40 ED-A
Paquete de control Quick-EcoDrive con P40 ED-A PFAFF 1181
控制组件 Quick-EcoDrive 带 P40 ED-A PFAFF 1183

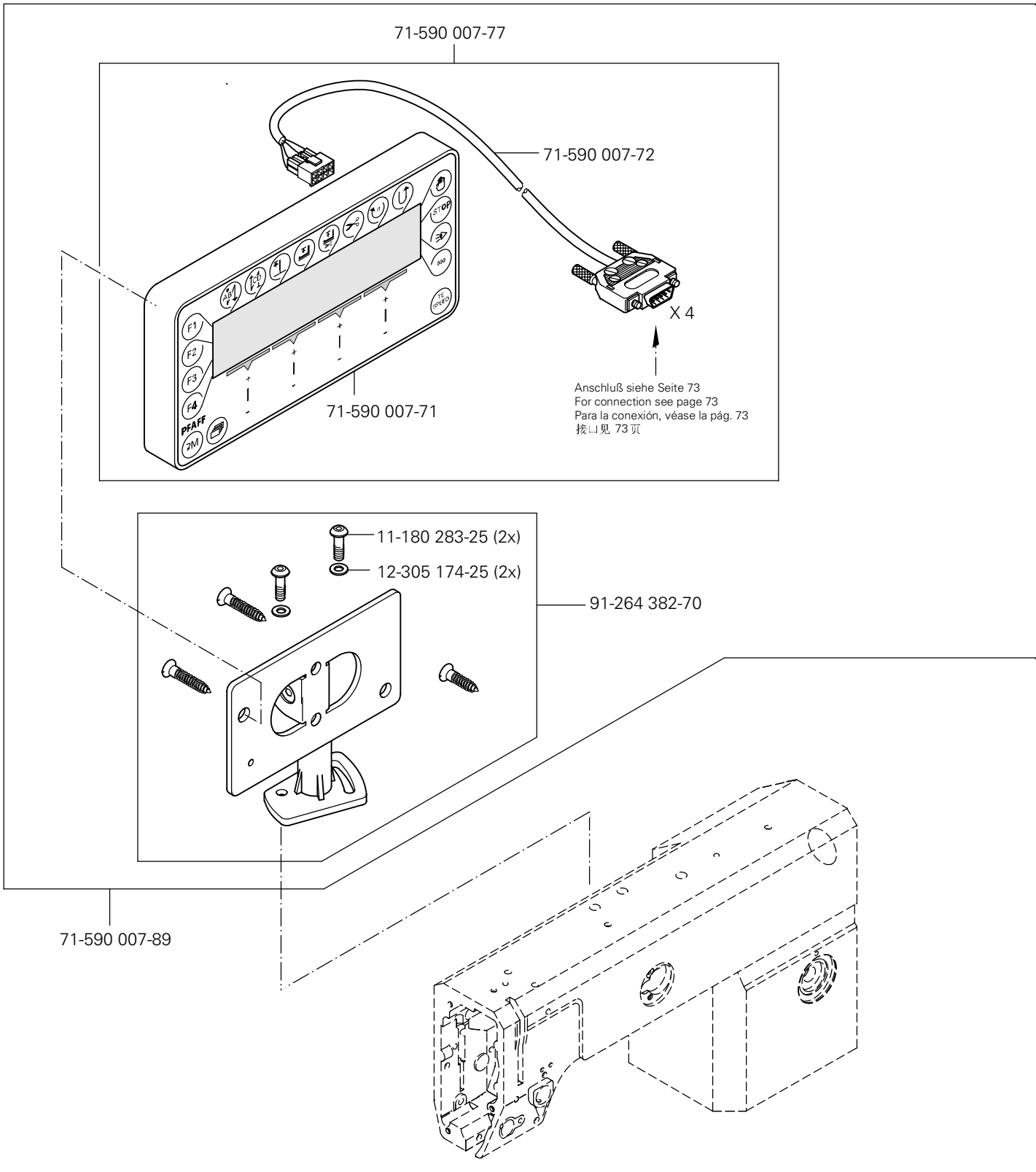
16.09



Steuerungspaket Quick-EcoDrive mit P50 ED
Control package Quick-EcoDrive with P50 ED
Paquete de control Quick-EcoDrive con P50 ED
控制组件 Quick-EcoDrive 带 P50 ED

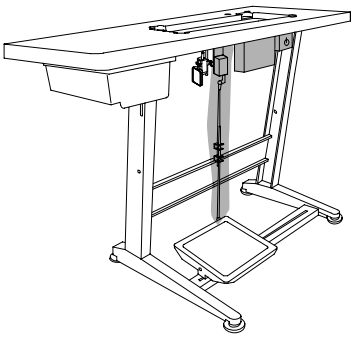
PFAFF 1181-SRP
PFAFF 1183-SRP





siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

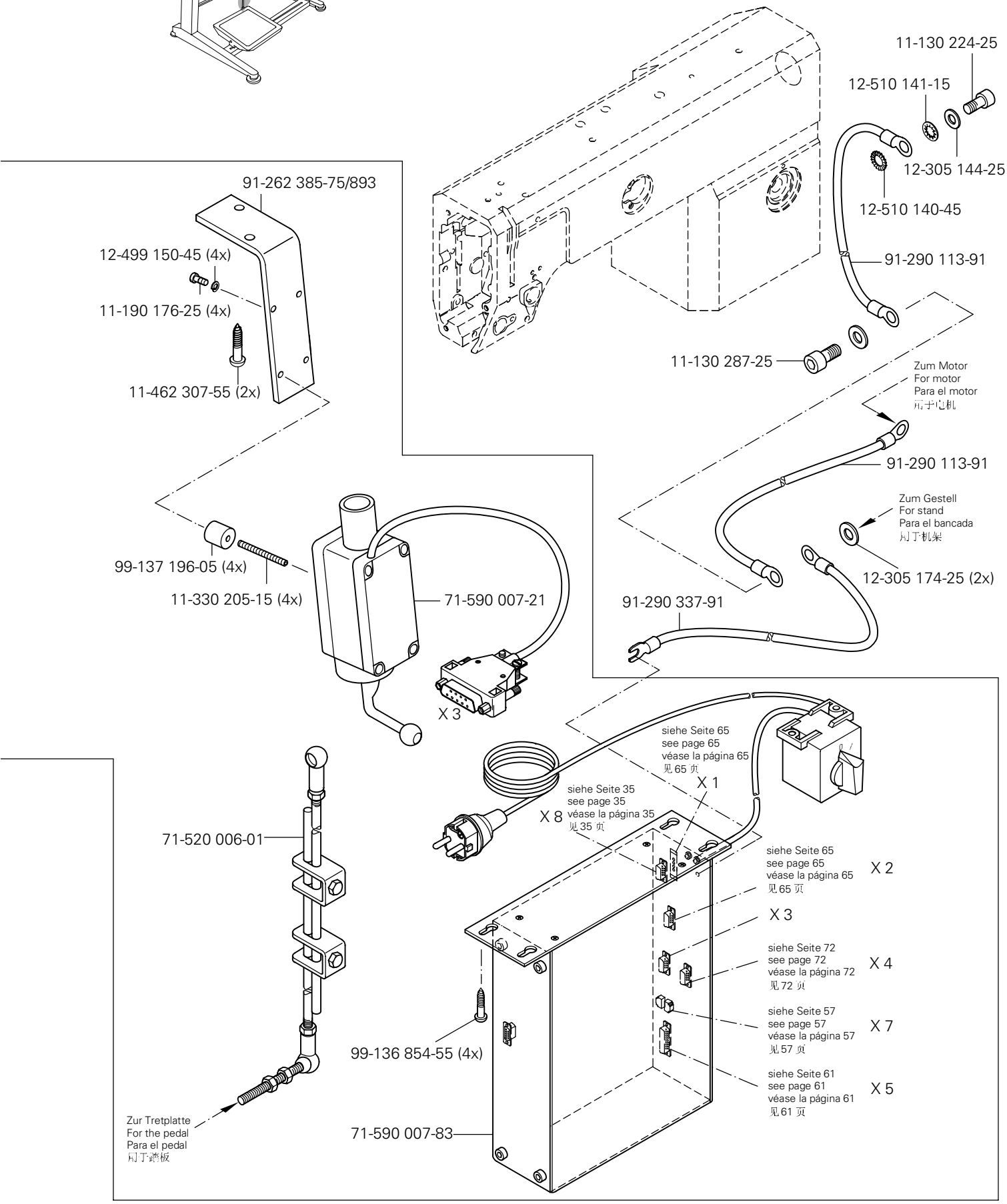
PFAFF



Steuerungspaket Quick-EcoDrive mit P50 ED
Control package Quick-EcoDrive with P50 ED
Paquete de control Quick-EcoDrive con P50 ED
控制组件 Quick-EcoDrive 带 P50 ED

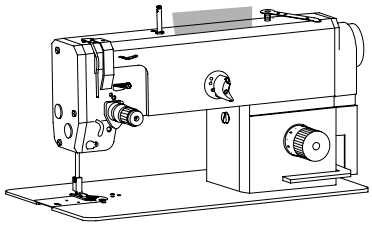
PFAFF 1181-SRP
PFAFF 1183-SRP

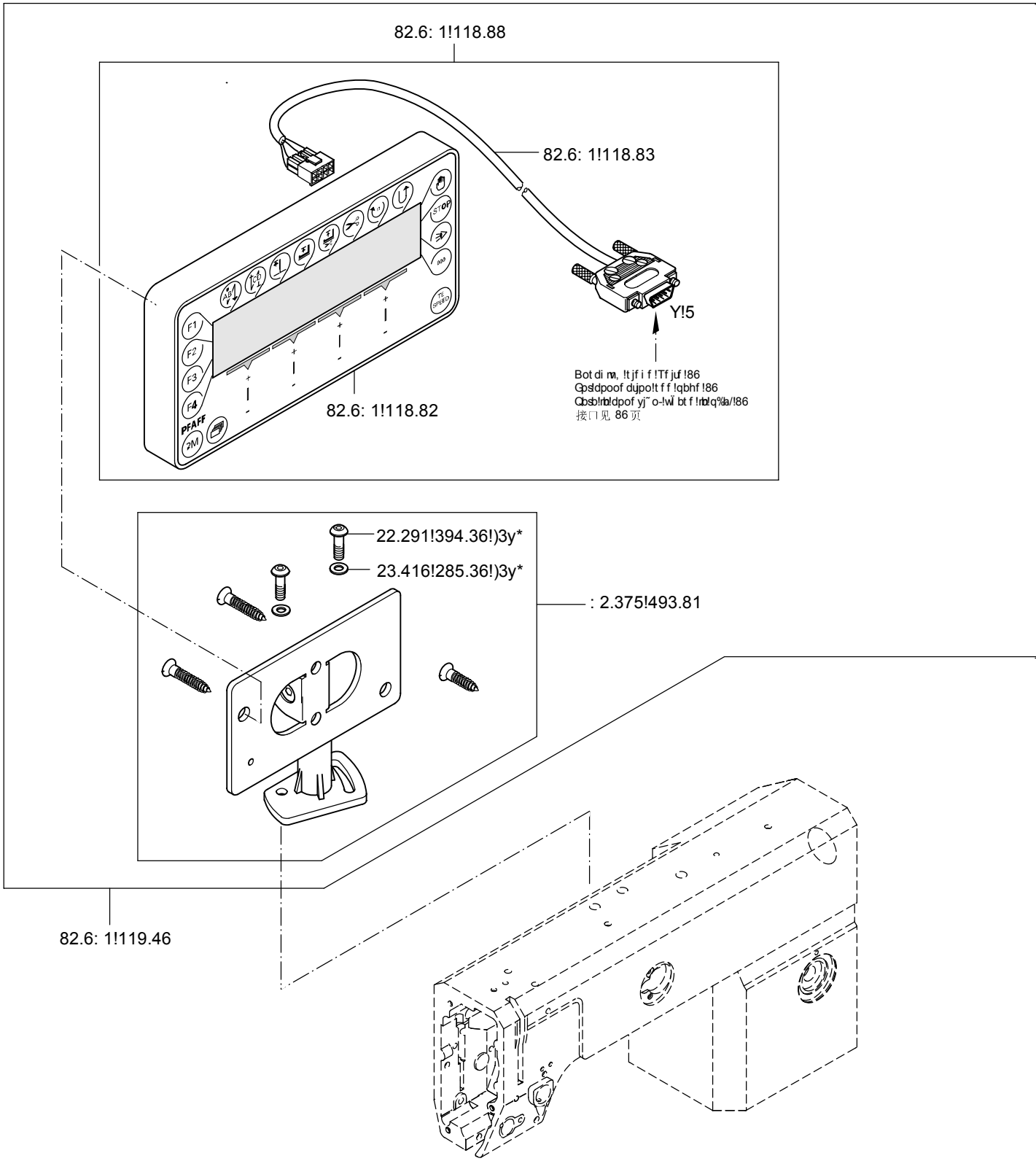
16.10



Steuerungspaket Quick-EcoDrive mit P350 ED
Control package Quick-EcoDrive with P350 ED
Paquete de control Quick-EcoDrive con P350 ED
控制组件 Quick-EcoDrive 带 P350 ED

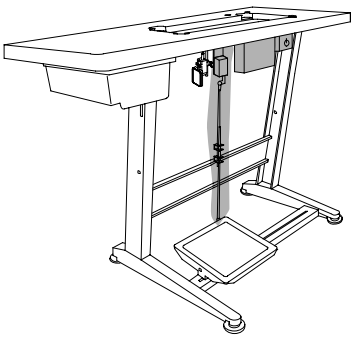
PFAFF 1181-948/26
PFAFF 1183-948/26
PFAFF 3701

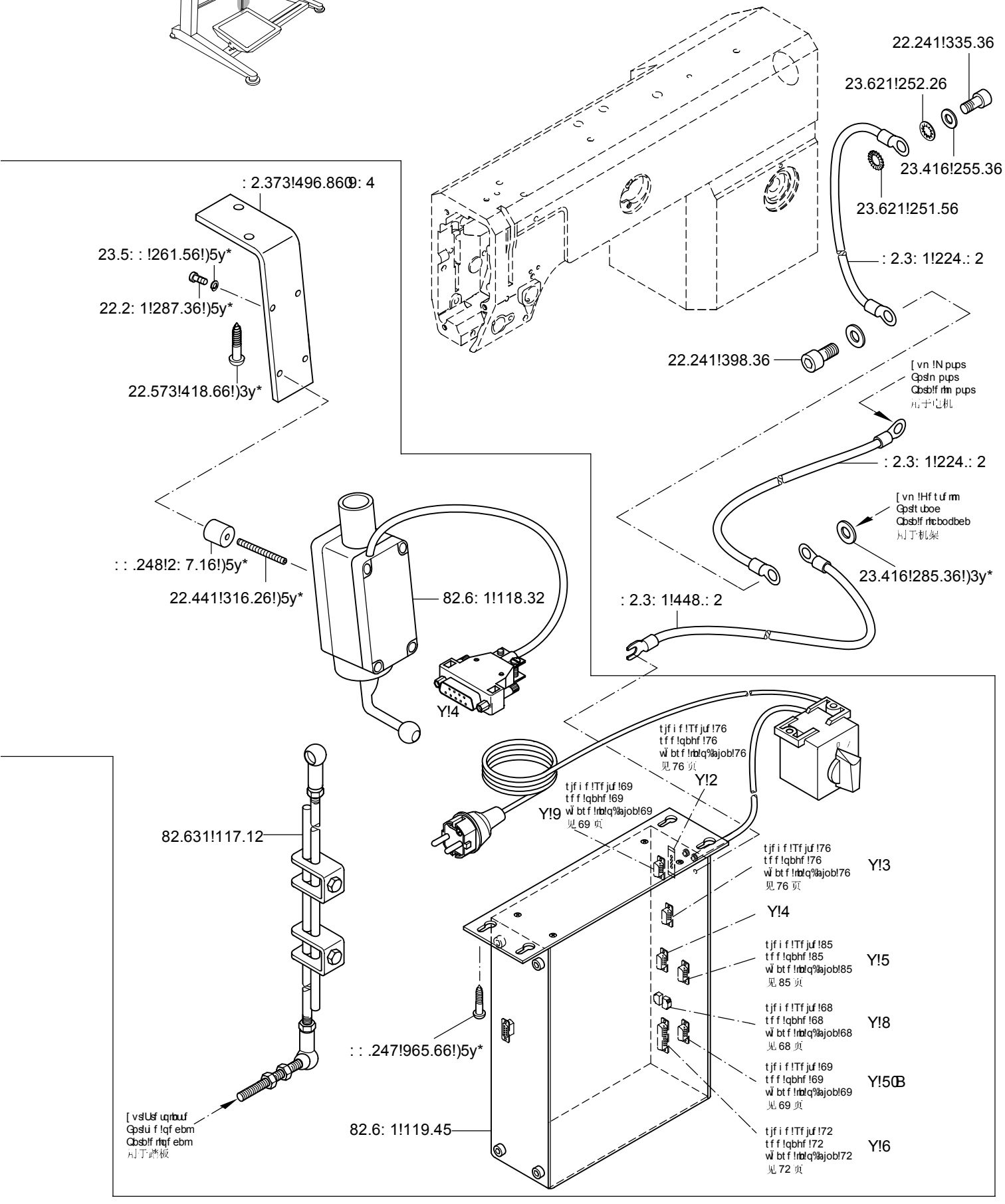


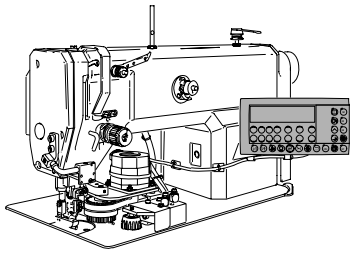


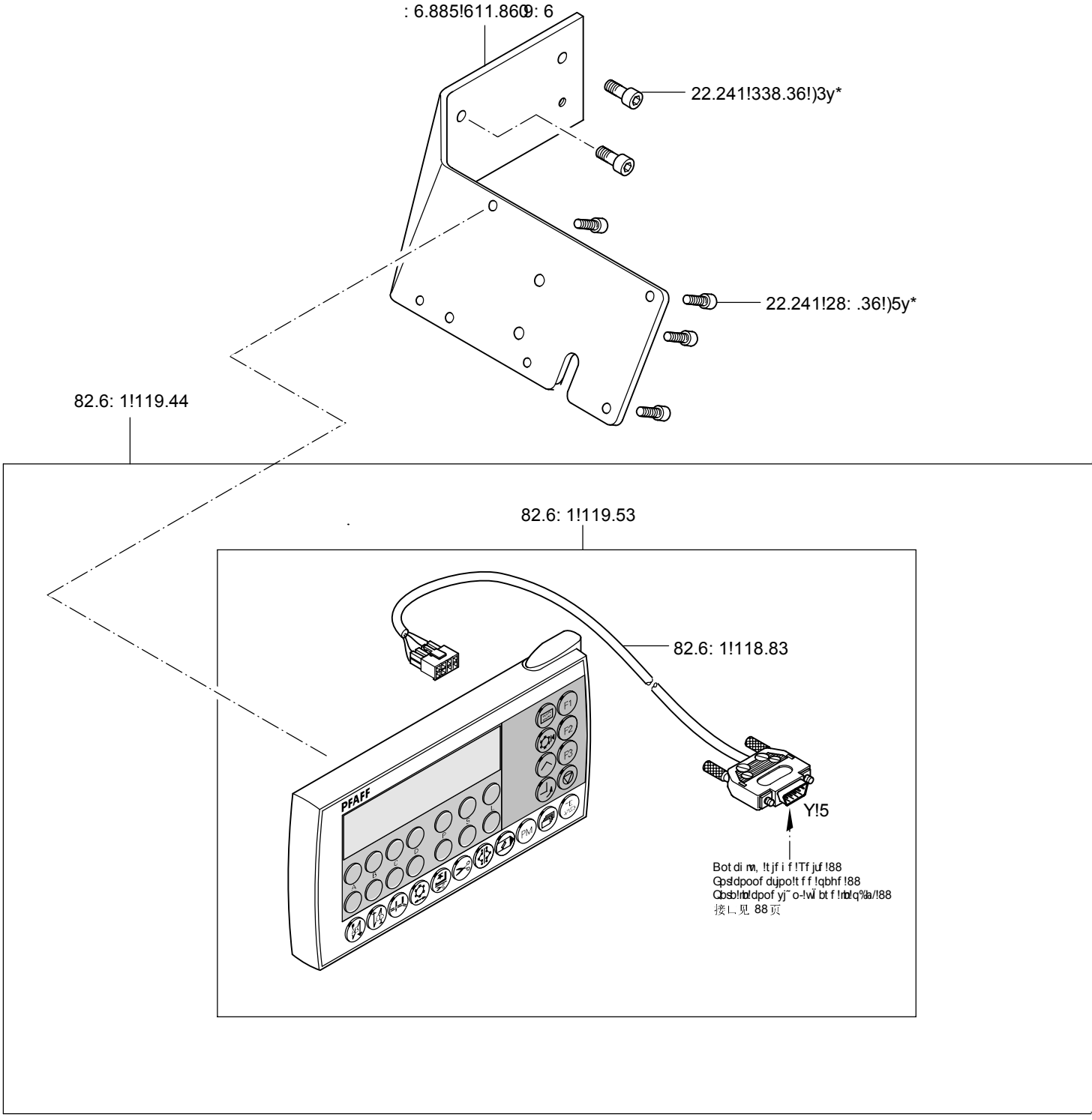
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

PFAFF

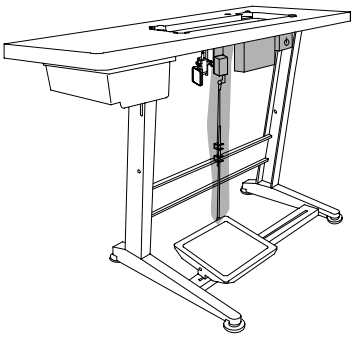


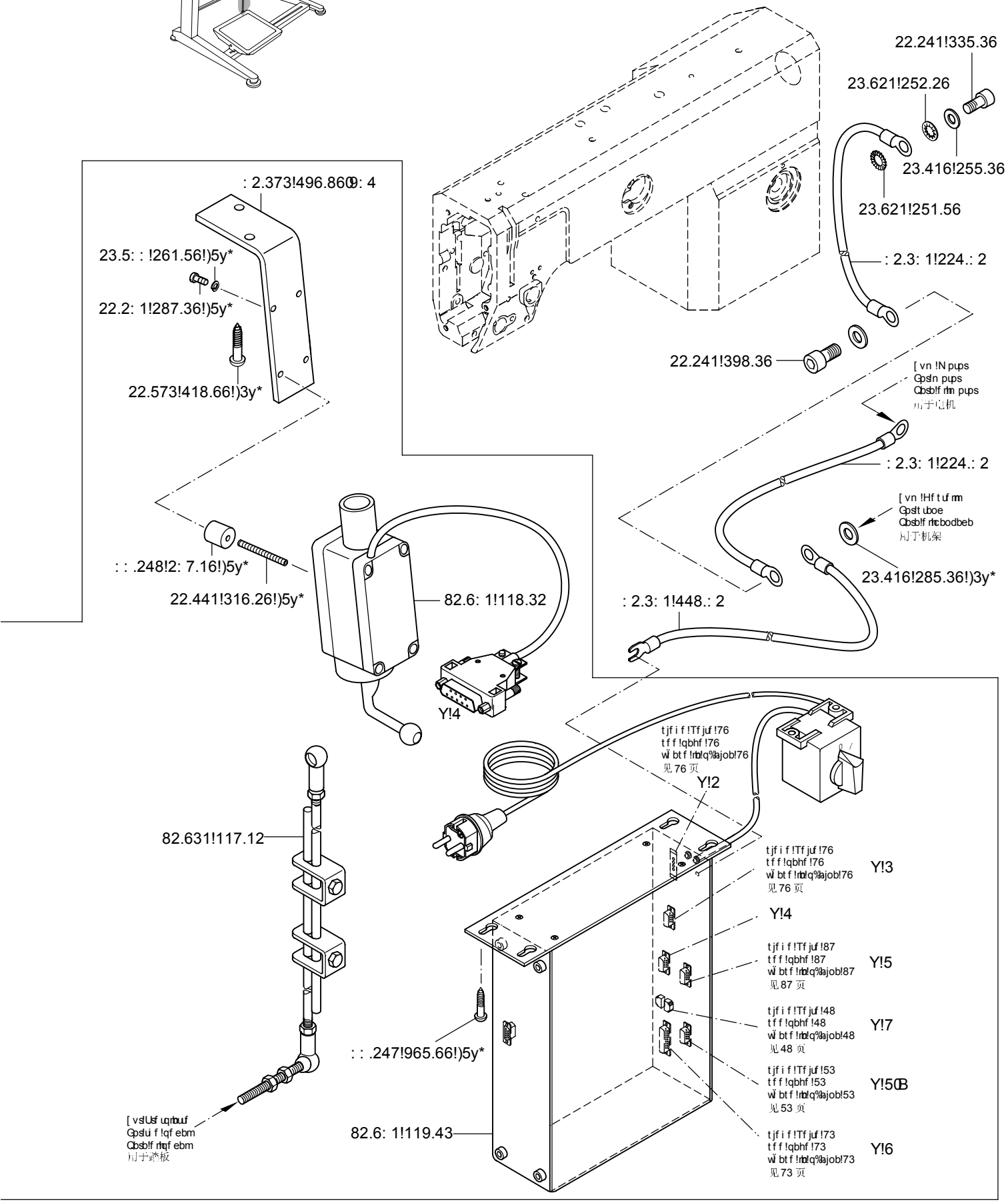

22.241!335.36
23.621!252.26
23.416!255.36
23.621!251.56
: 2.3: 1!224.: 2
22.241!398.36
: 2.373!496.869: 4
23.5: : !261.56!)5y*
22.2: 1!287.36!)5y*
22.573!418.66!)3y*
[vn !Npups
Gpsln pups
Qbsb!f rnn pups
: 2.3: 1!224.: 2
[vn !Hftufmm
Gpslt uboe
Qbsb!f rncbodbeb
23.416!285.36!)3y*
: : .248!2: 7.16!)5y*
22.441!316.26!)5y*
82.6: 1!118.32
Y!4
: 2.3: 1!448.: 2
tjf i f !Tf juf !76
tf f !qbhf !76
wî bt f !rbtq%ajob!76
见 76 页
Y!2
tjf i f !Tf juf !69
tf f !qbhf !69
Y!9 wî bt f !rbtq%ajob!69
见 69 页
82.631!117.12
tjf i f !Tf juf !76
tf f !qbhf !76
wî bt f !rbtq%ajob!76
见 76 页
Y!3
Y!4
tjf i f !Tf juf !85
tf f !qbhf !85
wî bt f !rbtq%ajob!85
见 85 页
Y!5
tjf i f !Tf juf !68
tf f !qbhf !68
wî bt f !rbtq%ajob!68
见 68 页
Y!8
: : .247!965.66!)5y*
tjf i f !Tf juf !69
tf f !qbhf !69
wî bt f !rbtq%ajob!69
见 69 页
Y!50B
[vs!Usf uqnbuf
Qpslu f !qf ebm
Qbsb!f rnqf ebm
82.6: 1!119.45
tjf i f !Tf juf !72
tf f !qbhf !72
wî bt f !rbtq%ajob!72
见 72 页
Y!6





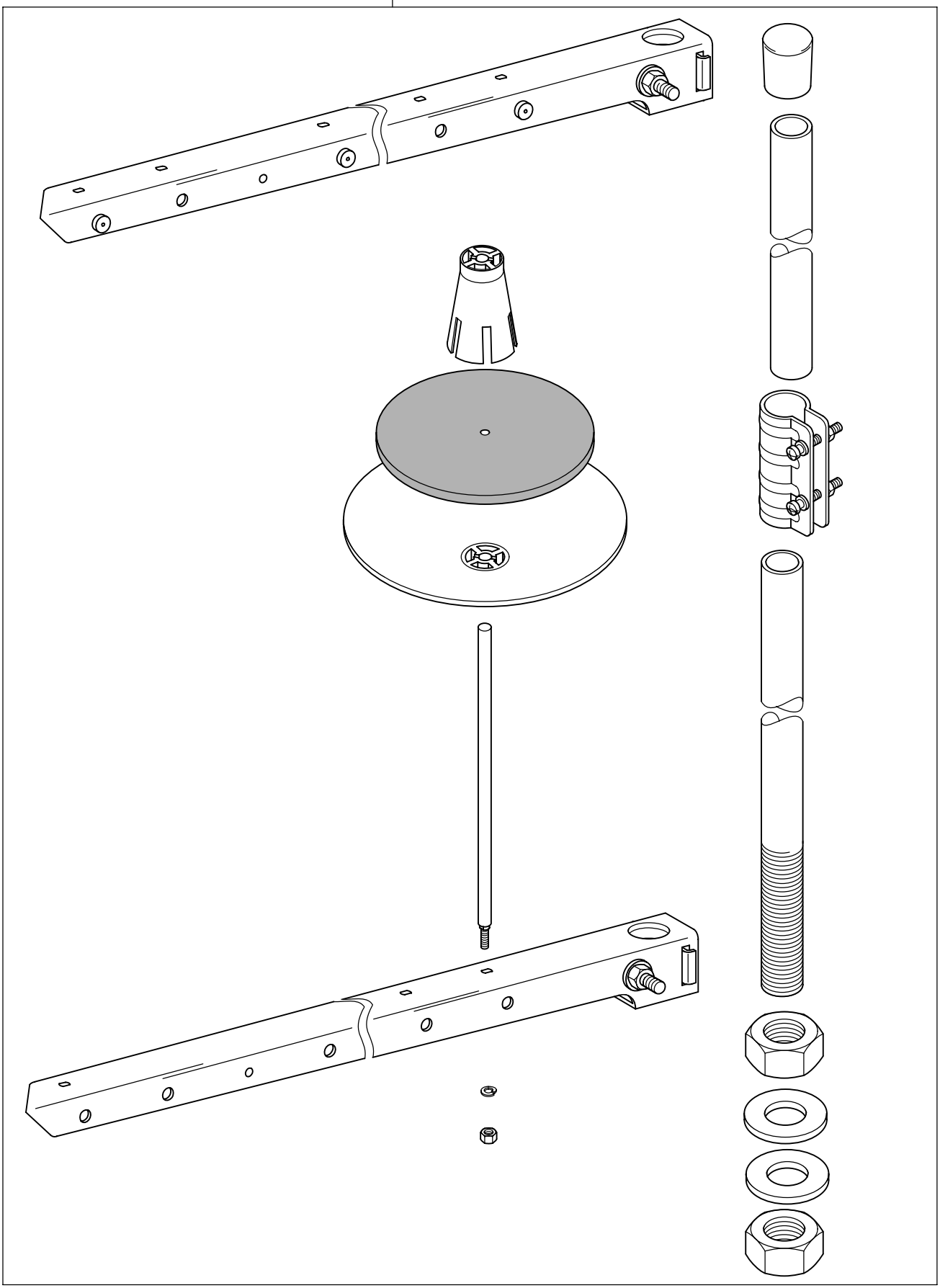
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明



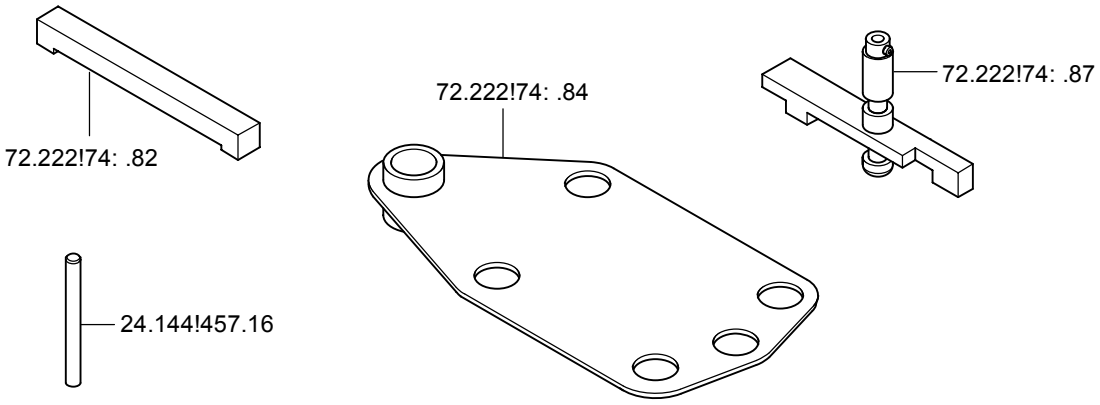

22.241!335.36
23.621!252.26
23.416!255.36
23.621!251.56
: 2.3: 1!224.: 2
: 2.373!496.869: 4
23.5: : !261.56!)5y*
22.2: 1!287.36!)5y*
22.573!418.66!)3y*
22.241!398.36
[vn !Npups
Gpsln pups
Qbsb!f rmn pups
: 2.3: 1!224.: 2
[vn !Hftufmm
Gpsltuboe
Qbsb!f rncbodbeb
23.416!285.36!)3y*
: : .248!2: 7.16!)5y*
22.441!316.26!)5y*
82.6: 1!118.32
Y!4
: 2.3: 1!448.: 2
tjfif!Tfjuf!76
tff!qbhf!76
wïbtf!nbtq%ajob!76
见 76 页
Y!2
82.631!117.12
tjfif!Tfjuf!76
tff!qbhf!76
wïbtf!nbtq%ajob!76
见 76 页
Y!3
Y!4
tjfif!Tfjuf!87
tff!qbhf!87
wïbtf!nbtq%ajob!87
见 87 页
Y!5
tjfif!Tfjuf!48
tff!qbhf!48
wïbtf!nbtq%ajob!48
见 48 页
Y!7
: : .247!965.66!)5y*
tjfif!Tfjuf!53
tff!qbhf!53
wïbtf!nbtq%ajob!53
见 53 页
Y!50B
[vs!Usf uqnbuf
Gpslu f !qf ebm
Qbsb!f rnqf ebm
82.6: 1!119.43
tjfif!Tfjuf!73
tff!qbhf!73
wïbtf!nbtq%ajob!73
见 73 页
Y!6

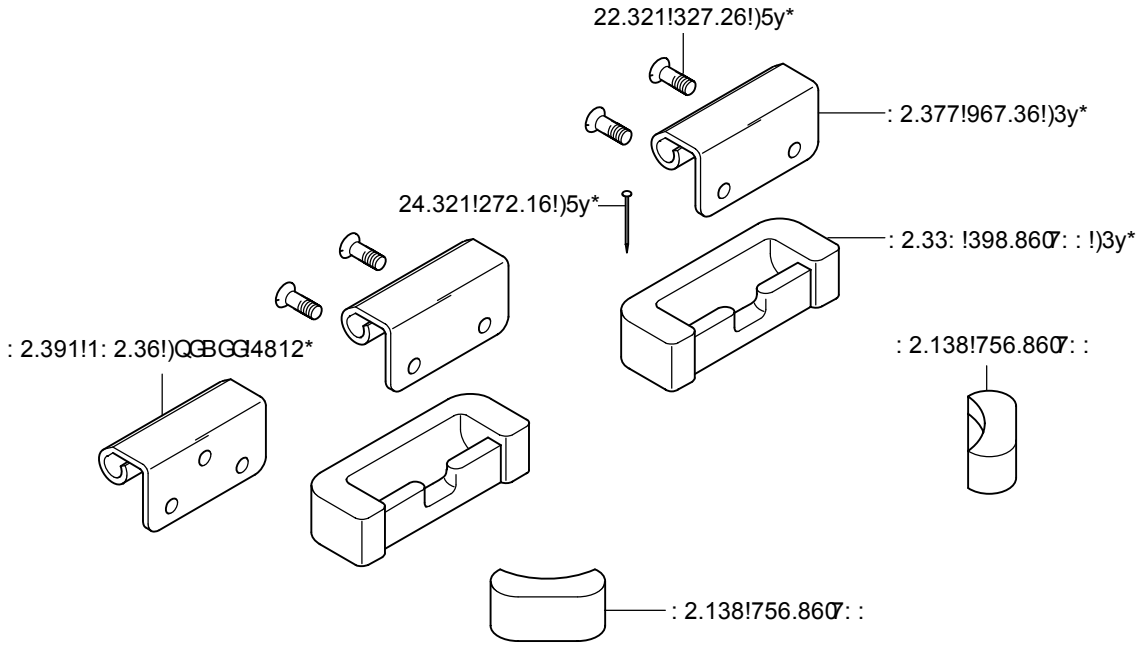
Garnrollenständer	PFAFF 1181;1181- D
Reel stands	PFAFF 1183;1183- D
Portacarretes	PFAFF 3511-2/01
线轴支架	PFAFF 3701-4/11

: 2.33: !181.8109: 6



siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

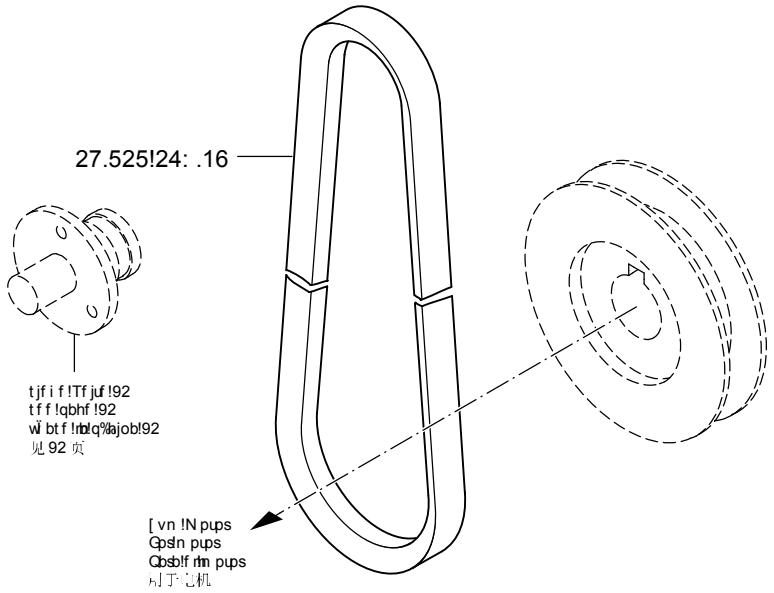

72.222!74: .82
72.222!74: .84
72.222!74: .87
24.144!457.16


22.321!327.26!)5y*
: 2.377!967.36!)3y*
24.321!272.16!)5y*
: 2.33: !398.860Ø: : !)3y*
: 2.391!1: 2.36!)QGBGG4812*
: 2.138!756.860Ø: :
: 2.138!756.860Ø: :

20

Keilriemen
V-belt
Correa trapezoidal
三角皮带

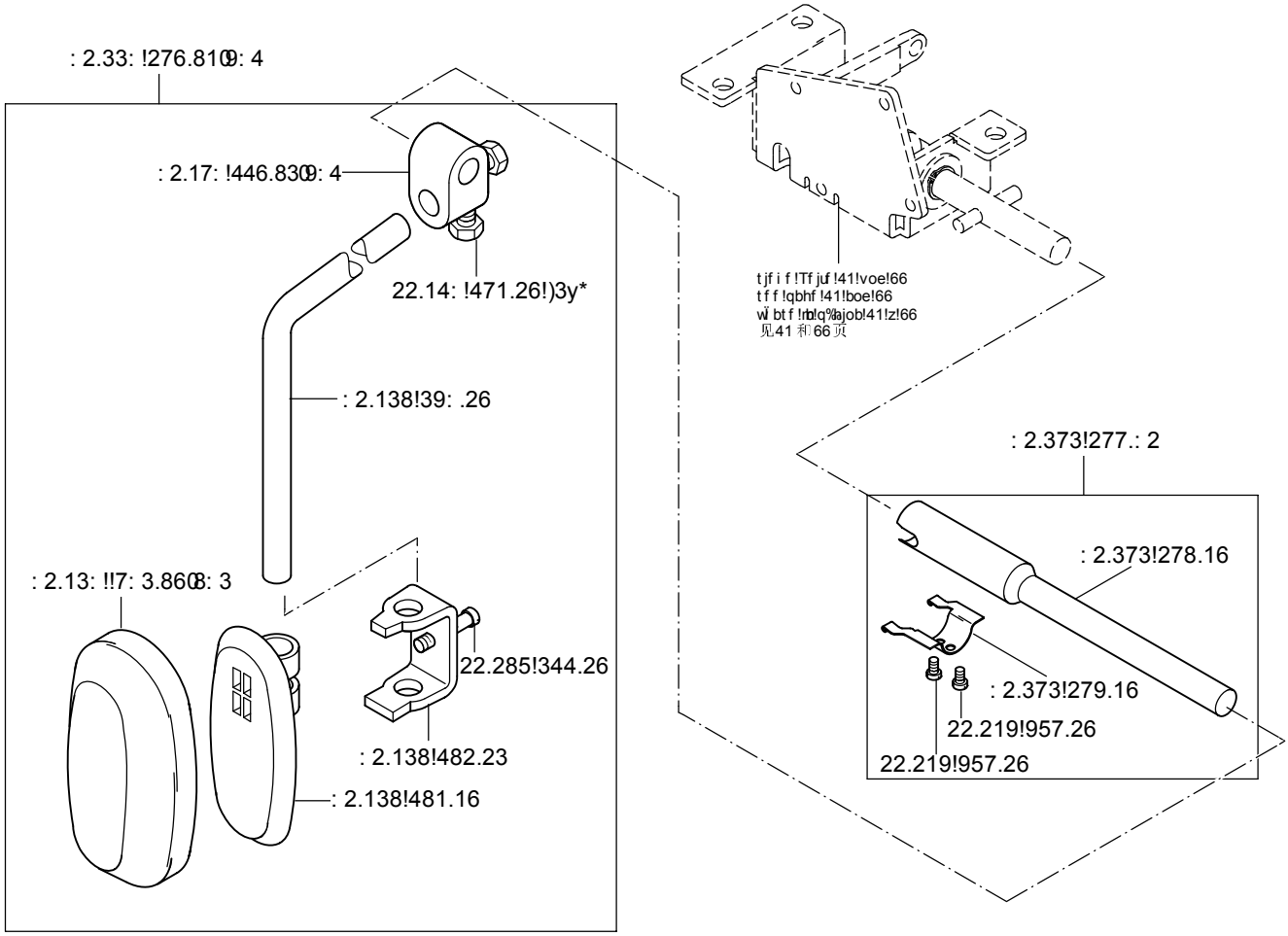
PFAFF 1181;1181- D
PFAFF 1183;1183- D



21

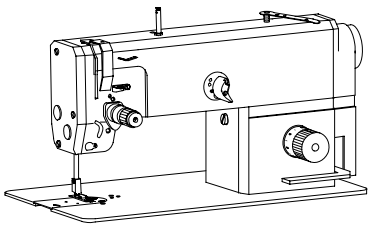
Knielüfterteile
Knee lifter parts
Piezas del alzaprensatelas por rodillera
膝松线器零件

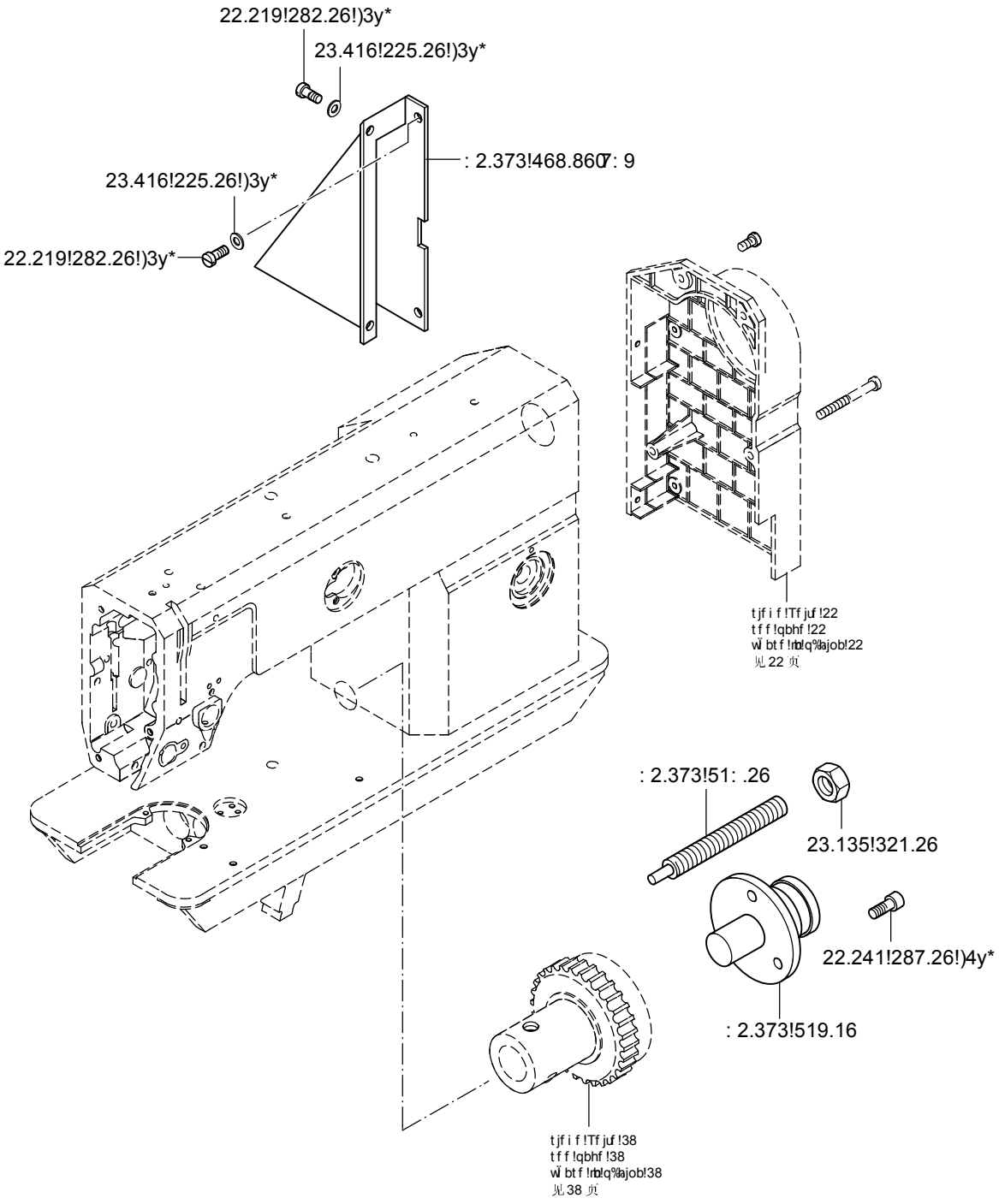
PFAFF 1181;1181- D
PFAFF 1183;1183- D
PFAFF 3701-4/11

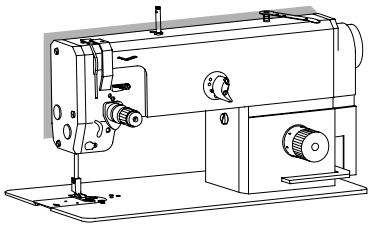


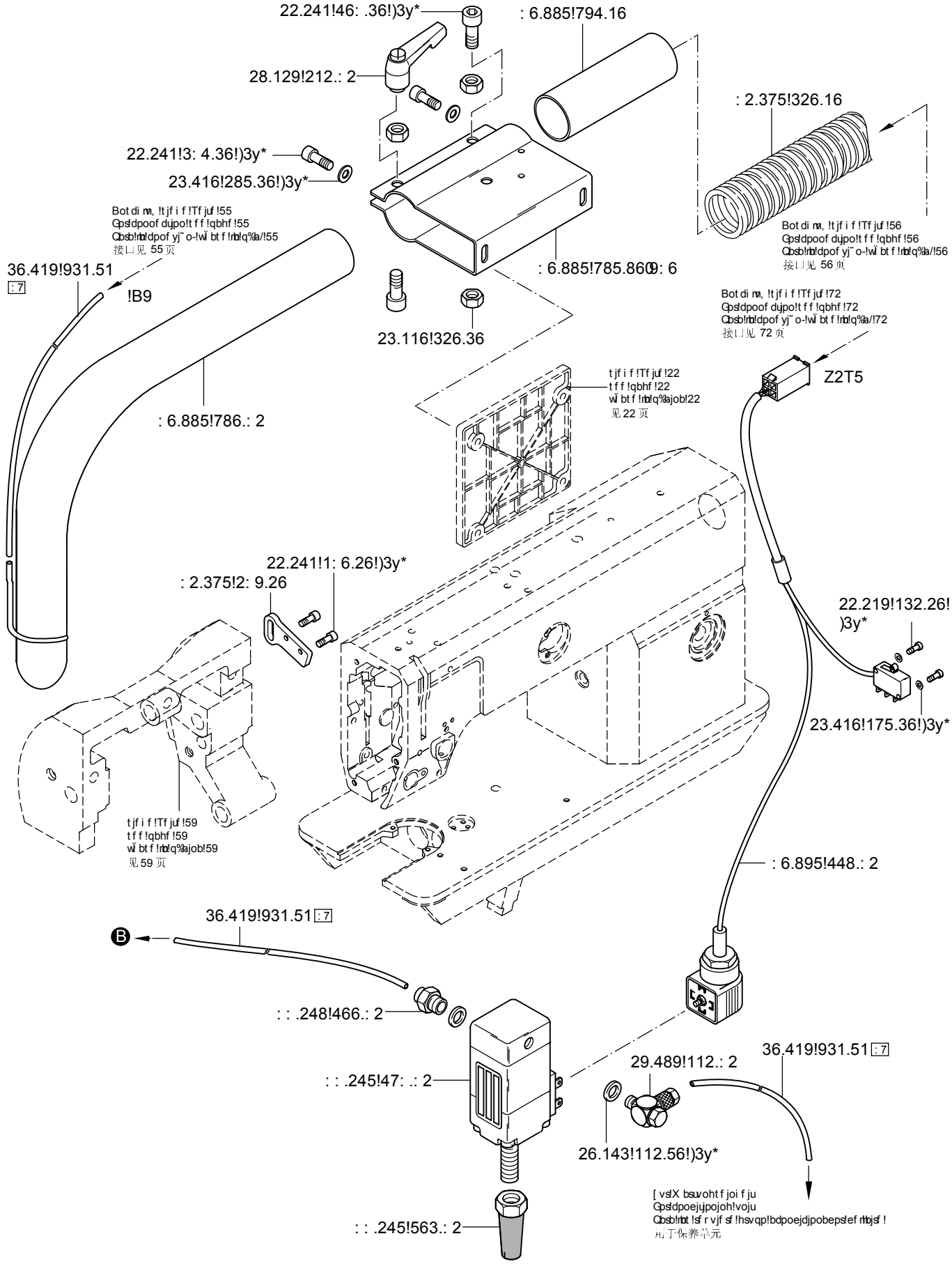
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
véase el Cap. 2 Explicaciones de los signos clave
见第2章标记说明

PFAFF



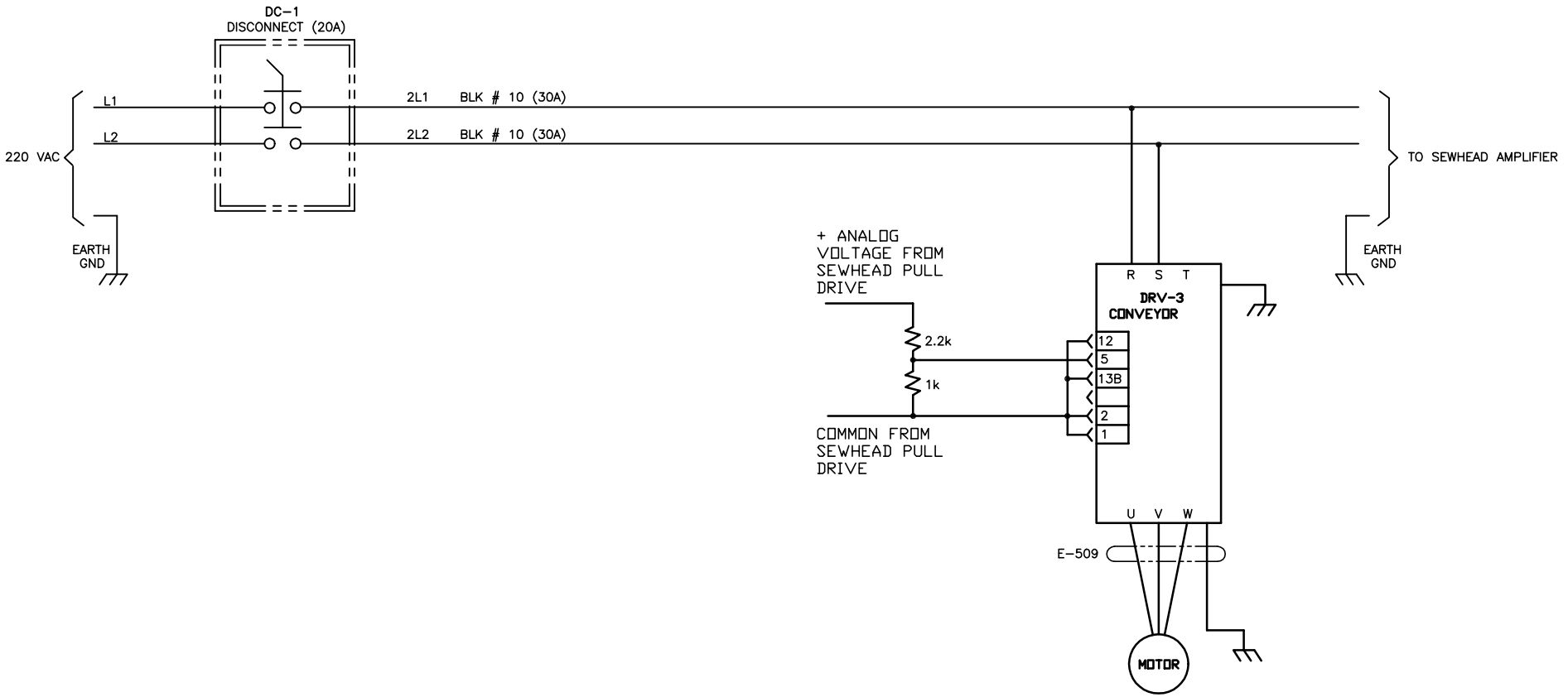

22.219!282.26!)3y*
23.416!225.26!)3y*
: 2.373!468.860Ø: 9
23.416!225.26!)3y*
22.219!282.26!)3y*
tjf i f !Tf juf !22
t f f !qbhf !22
wi bt f !nb!q%ajob!22
见 22 页
: 2.373!51: .26
23.135!321.26
22.241!287.26!)4y*
: 2.373!519.16
tjf i f !Tf juf !38
t f f !qbhf !38
wi bt f !nb!q%ajob!38
见 38 页





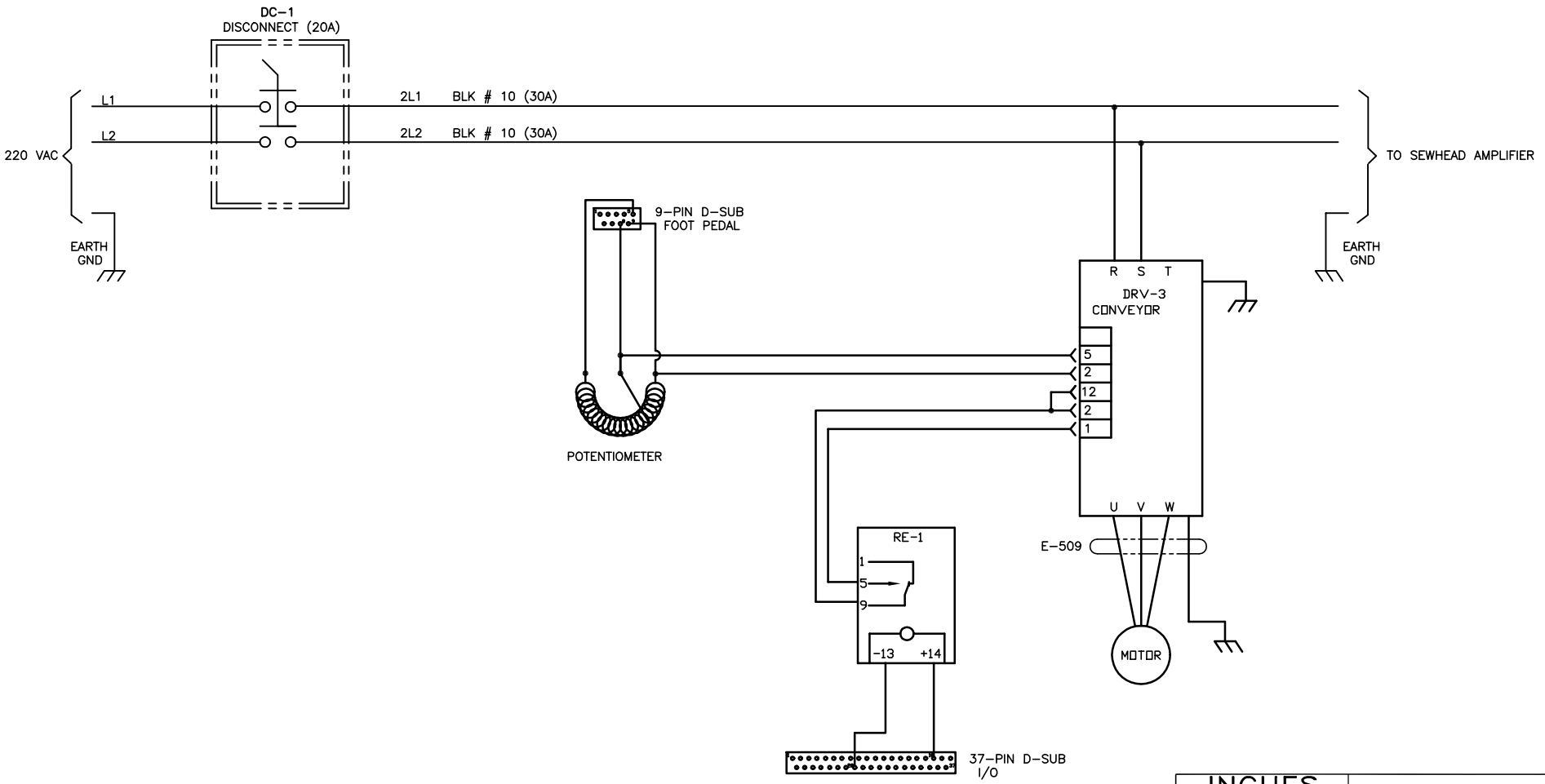
siehe Kapitel 2 Erläuterung der Schlüsselzeichen
see chapter 2 Explanation of key markings
voir le chap. 2 Explication des symboles
véase el Cap. 2 Explicaciones de los signos clave

NOTE: FOR USE WITH PFAFF 1183 WITH DC PULLER MOTOR ONLY!



INCHES UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING ALL DIMENSIONS ARE IN INCHES ALL STOCK AND CUT-OFF DIMENSIONS ±0.031 ALL TWO PLACE DECIMAL DIMENSIONS ±0.010 ALL THREE PLACE DECIMAL DIMENSIONS ±0.005 ALL FOUR PLACE DECIMAL DIMENSIONS ±0.0005 ALL MACHINED ANGLES 45°-15' C'SINK ALL TAPPED HOLES. REMOVE ALL BURRS AND SHARP CORNERS. UNTOLERANCED CASTING AND WELDMENT DIMENSIONS ±0.125 SURFACE FINISHING VALUES DO NOT USE REF. DIMENSIONS FOR MANUFACTURING. DIMENSIONS IN [mm] ARE IN INCHES. 63 OR BETTER ON ALL MACHINED SURFACES.	ABM INTERNATIONAL A.B.M. INTERNATIONAL Inc. 211 SEDGERS AVENUE ELK GROVE VILLAGE, IL 60007 TITLE: COMFORTER CLOSER DRAWN BY: JOE PODOLSKI — DATE: 3/6/07 CHECKED BY: — — DATE: — PROJ NO. 9005 — SCALE: NONE SHEET NO. 1 — TOTAL SHEETS 1 — DRAWING NO. E-9005-001

NOTE: FOR USE WITH PFAFF 1183 WITH HYBRID
STEPPER PULLER MOTOR ONLY!



INCHES UNLESS OTHERWISE SPECIFIED DO NOT SCALE DRAWING ALL DIMENSIONS ARE IN INCHES ALL STOCK AND CUT-OFF DIMENSIONS ±0.031 ALL TWO PLACE DECIMAL DIMENSIONS ±0.010 ALL THREE PLACE DECIMAL DIMENSIONS ±0.005 ALL FOUR PLACE DECIMAL DIMENSIONS ±0.0005 ALL MACHINED ANGLES 30°-15' CHAMFER ALL TAPPED HOLES. REMOVE ALL BURRS AND SHARP CORNERS. UNFINISHED CASTING AND WELDMENT DIMENSIONS ±0.125 BURRS/IF DIMENSIONS ALIGN DO NOT USE REF. DIMENSIONS FOR MANUFACTURING. DIMENSIONS IN [xx] ARE IN INCHES. 125 OR BETTER ON ALL MACHINED SURFACES.	ABM INTERNATIONAL A.B.M. INTERNATIONAL Inc. 211 SEEGERS AVENUE ELK GROVE VILLAGE, IL 60007 TITLE: COMFORTER CLOSER DRAWN BY: JOE PODOLSKI — DATE: 11/16/07 CHECKED BY: — — DATE: — PROJ. NO. 9005 — SCALE: NONE SHEET NO. 1 — TOTAL SHEETS 1 — DRAWING NO. E-9005-002