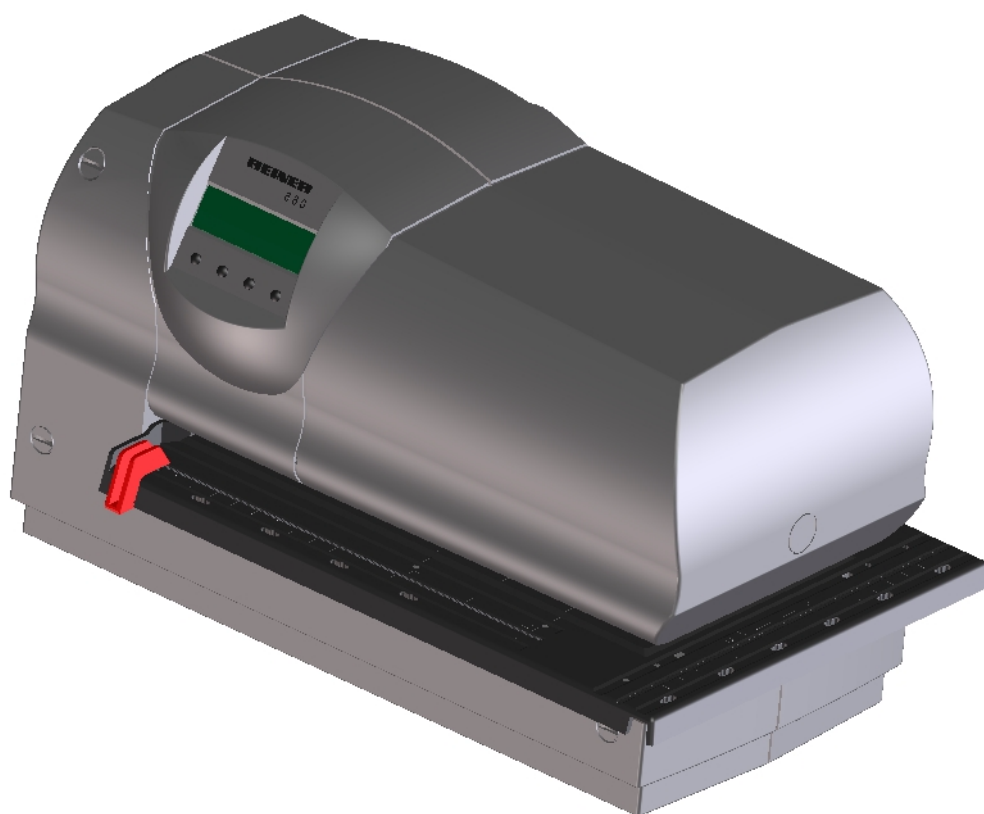


REINER

Service Manual

880



| Bearb. | Datum | Entw. | Datum | N/QS | Datum | Aend-Nr. | Seite |
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1 Introduction and Safety Instructions

1.1 Introduction

This technical manual describes REINER Electric Stamping Machines in the Model Range 880.

1.2 Symbols used

The following symbols are used to aid presentation in this manual:



Indicates general instructions

Note



Indicates an instruction that must be observed

Warning

1.3 Safety instructions

This section contains safety instructions that you must observe without fail when handling your electric stamping machine.

1.3.1 General safety instructions ¹

- The Reiner 880 complies with relevant safety regulations for information technology equipment, including those for electric office machinery.
- Unauthorised opening of the machine and improper repairs can cause considerable danger (fire hazard). To avoid the danger of crushing, do not insert your fingers between the baseplate and the print carriage.
- Transport the machine only in its original package or other suitable package that provides protection against shock and impact.
- If the machine is taken from a cold environment into a warm room, dew may form on it. Wait until the machine has warmed up to room temperature and is absolutely dry before starting to use it.
- Make sure that the local mains voltage corresponds to the voltage stated on the mains unit.
- Ensure that the locally-installed mains socket with protective earth, which you use for the machine, is readily accessible at all times.
- The machine has no ON/OFF switch; to disconnect it from the mains you must disconnect the mains unit from the mains socket.
- Arrange the connection leads so that they do not create a hazard (danger of tripping) and cannot be damaged.
- Take care that no objects (e.g. necklaces, paper clips, or liquids) fall into the machine – danger of electric shock and short circuit.
- In an emergency, e.g. in the event of damage to the machine casing, control elements or the mains lead, or if an object or liquid falls into the machine, disconnect the mains unit from the mains socket and inform your sales agent or our Service Department.

¹ Source: *Bedienungsanleitung 880 / Version 2.0*

1.3.2 Sub-assemblies with components subject to damage from electrostatic discharge

Sub-assemblies containing components that may be damaged by electrostatic discharge (ESCs = electrostatically-sensitive components) may be marked with the following symbol:



When handling sub-assemblies containing ESCs, you must observe the following guidelines without fail:

- Before working with sub-assemblies containing ESCs, ensure that you are not charged with static electricity, e.g. by touching an earthed object.
- Equipment and tools used must not be statically charged.
- Disconnect the mains plug before inserting or removing sub-assemblies containing ESCs.
- Grasp sub-assemblies containing ESCs only by their edges.
- Do not touch connector pins or printed-circuit tracks on sub-assemblies containing ESCs.

1.3.3 Hazards arising from working on the machine internals

The Model 880 contains sub-assemblies that carry high voltages and electric charges, which could cause serious injury.

Operations on the machine internals must therefore only be carried out by trained specialist personnel!

1.4 Manufacturer's notes

1.4.1 GS "Geprüfte Sicherheit" / CE mark



Tested Safety

Reiner 880 is manufactured to the safety standards IEC 950, EN 60950 and VDE 0805



Marking

Reiner 880 complies with EC Directive 89 / 336 / EEC 'Electromagnetic Compatibility', and therefore carries the CE symbol

Source: Bedienungsanleitung 880 English/ Version 2.0

1.5 Environmental regulations

What does REINER contribute to our mutual environment?

The Model 880 Electric Stamp complies with all relevant safety standards. This means that, if the machine is used correctly, it does not pose any danger for the user.

The noise emissions comply with workplace regulations for environments in which mainly intellectual work is carried out.

The level of radiated electromagnetic interference is below internationally-permitted limits.

This manual is printed on low-chlorine paper.

1.5.1 **Materials**

Model 880 Electric Stamps contain, besides various metals, high-quality thermoplastic materials. These technical plastics have made it possible to reduce the weight of the machine. This helps conserve scarce raw-material resources. The primary energy input is significantly lower. None of the thermoplastic materials employed contains heavy-metal flame retardants.

1.5.2 **Recycling**

Dismantling is the fundamental requirement for comprehensive recycling. Model 880 Electric Stamps have been specially developed for simple assembly and dismantling.

The technical plastics employed can be reused. Larger parts are marked with the material used in them. Our documentation contains the information needed for recycling and will be available for many years.

1.5.3 Ink ribbons

Long-life ink-ribbon cassettes are used in Model 880 Electric Stamps. The ink ribbons contain no carcinogenic substances.

Do not throw used cassettes away, they can be recycled.

1.5.4 Packaging

The package protects your machine during transport.

All packaging components can be recycled.

1.5.5 Batteries

Neither normal nor rechargeable batteries should be disposed of in domestic waste.

They must be disposed of as hazardous waste in accordance with local regulations.

2 Technical Data

Technical data²

| | |
|---|--|
| Dimensions (B x D x H in mm) | 336 x 166 x 198 |
| Weight | ca. 6.9 kg |
| Ink-ribbon capacity | ca. 800,000 characters ca. 16,000 impressions (with printing plate) |
| Stamping time | ca. 0.6 seconds |
| Stamping sequence | min. 1.2 seconds |
| Ambient temperature for operation | + 10°C ... + 40°C down to - 8°C depending on conditions |
| Temperature for transport and storage | - + 40°C ... + 70°C |
| Relative humidity for operation | 30% ... 70% relative humidity |
| Relative humidity for transport and storage | 10% ... 90% relative humidity |
| Power supply | from mains unit supplied Protection class II |
| Input voltage to mains unit | 100 ... 240 V ~ / 50 ... 60 Hz / 1.5 A AC |
| Output voltage from mains unit | 24 V DC / 3.0 A |
| Noise level | max. 65 dB(A) (workplace-related emissions to ISO 7779) |

Example of an impression



Source: www.reiner.de

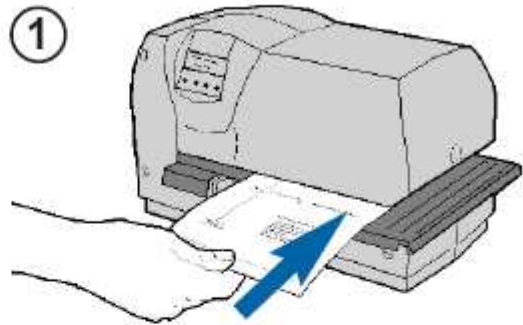
² Source: Bedienungsanleitung 880 / Version 2.0

Impression position

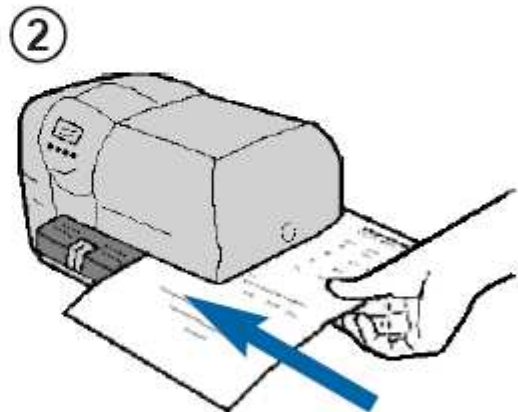


The different ways of introducing print media enable an imprint to be positioned almost anywhere on a form.

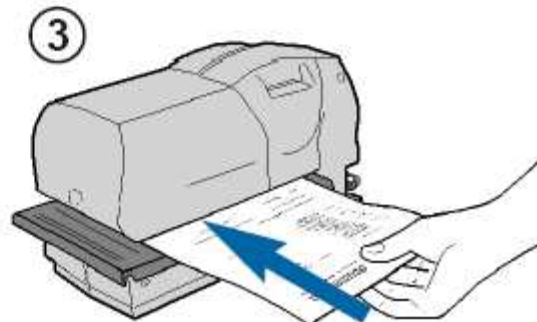
- ① **Print medium fed from the front**



- ② **Print medium fed from the side**



- ③ **Print medium fed from the rear**



Source: Bedienungsanleitung 880 / Version 2.0

3 Type Overview

3.1 Machine versions

| Model | REINER Part No. | Version | Comment |
|---------|-----------------|---------|------------|
| 880 | 880000-000 | 880 | |
| 880-050 | 880000-050 | 880-050 | Stamp head |

3.2 Ink ribbons and ink-ribbon cassettes

Model 880 stamps have ink-ribbon cassettes that are easy to replace, so that changing the ink ribbon is quick, clean and simple.

All available ink-ribbon cassettes are shown in the table below.

Changing a cassette is described in detail in the relevant [operating instructions](#).

| Colour | Ribbon material | Designation | REINER Order No. |
|-----------------------------------|-----------------|-----------------------------|--|
| Black | Nylon | Ink ribbon, cpte. | 887100-000 |
| Red | Nylon | Ink ribbon, cpte., red | 887100-001 |
| Blue | Nylon | Ink ribbon, cpte., blue | Only available on request! (887100-003) |
| BL-GN-RD (blue, green, red) | Nylon | Ink ribbon, cpte., bl-gn-rd | Only available on request! (887100-020) |

4 Machine Features

4.1 General

REINER 880 Electric Stamps incorporate two different printing mechanisms, a single-line needle printer and a roller printer for individual impressions using a printing plate.

For the needle printer, details of impressions are stored in the machine.

Further, individual impression designs for the needle printer can be read in from a chipcard and printed.

The machine can also receive, through the serial interface, and print formatted impression texts which have been prepared on a PC.

(Product: **Click & Stamp**).

4.2 Internal impressions

4.2.1 Capacity for impression designs

| | |
|----------------------------------|---------------|
| Number of impression designs: | 40 |
| Maximum number of printed lines: | 1 |
| Impression length | max. 60.44 mm |
| Maximum number of characters | |
| • Narrow type (Engschrift): | 35 |
| • Normal type: | 23 |
| • Wide type (Breitschrift): | 16 |

4.2.2 Internal impressions

For the internal impressions (stored impressions), please see the relevant [operating instructions](#).

4.3 Roller printer

With the roller printer, an individually-designed impression can be created with a maximum size of 40 x 62 mm.

You will find examples of such impressions in [Section 2 Technical Data](#) and [Section 5.2.3 Printing plate](#)

5 Options and Accessories

5.1 Accessories

For general accessories, please see parts list 880000-000 ([Section 6.3.1](#)).

5.1.1 USB interface³

- The USB interface (Version 1.1) enables connection of the machine to a PC.
- The connection can be used as a printer interface. In such a case, data are transmitted from an application program to the REINER 880, which can then print them immediately.
- An interface description for preparing an application program is available from REINER.



Electrostatic discharge at the interface connection can cause machines and features to malfunction.

Warning

For further details of the USB interface, please see the [Operating Instructions](#).

³ Source: Bedienungsanleitung 880 V2.0

5.2 Options

5.2.1 ChipCard

By using the programmable REINER ChipCard, the following additional functions are available:

- Key function
- Printing a supplementary operator identification
- Individually-designed needle impression

For further details of the ChipCard functions, please see the [Operating Instructions](#). ChipCards pre-programmed to order are available from REINER under [Order No. 782532-000](#).

5.2.2 Click & Stamp 789 WIN

With this program, text from any desired application can be transmitted from the clipboard of the PC to the connected printer and printed.⁴

The product *Click & Stamp 789 WIN* can be obtained from REINER under [Order No. 789105-000](#).

5.2.3 Printing plate

Brass and Nylonprint printing plates can be manufactured by REINER on request:



| Type | Order No. | Designation |
|------------|----------------------------|--------------------------------|
| Brass | 883225-000 | GRAVUR MOD.880 MSPL. 62X40 MM |
| Nylonprint | 883227-000 | NYLOPRINTPL.F.MOD.880 62X40 MM |

What design limits are imposed by the process?

In general, there are no restrictions on the design of the impression. However, to achieve the optimum impression and carbon-copy quality, the following guidelines should be taken into account.

1. *Impression with border*
The border helps to achieve a uniform impression



Example:

| Favourable design | Unfavourable design |
|--|---|
|  <p>REINER numeriert, datiert, codiert Elektrostempelgeräte für Belegstapel bis 2,5 mm TYP 880 Druckrolle für Textplatte plus Nadeldrucker Textplatte 62X40 mm, bis zu 3 Durchschlägen</p> |  <p>REINER numeriert, datiert, codiert Elektrostempelgeräte für Belegstapel bis 2,5 mm TYP 880 Druckrolle für Textplatte plus Nadeldrucker Textplatte 62X40 mm, bis zu 3 Durchschlägen</p> |

⁴ Source: Bedienungsanleitung 789 V2.0

2. *Text characters and pictures in OUTLINE.*
Large surfaces reduce the surface pressure, resulting in an uneven impression.
(This rule is particularly important when carbon copies are required.)

Example:


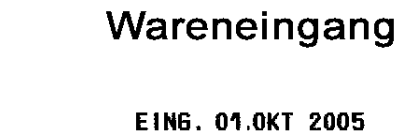
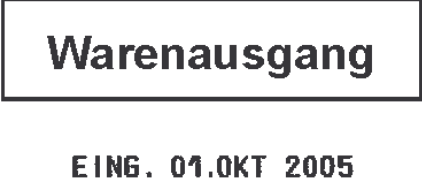

| Favourable design | Unfavourable design |
|--|---|
|  <p>REINER numeriert, datiert, codiert Elektrostempelgeräte für Belegstapel bis 2,5 mm TYP 880 Druckrolle für Textplatte plus Nadeldrucker Textplatte 62X40 mm, bis zu 3 Durchschlagen</p> |  <p>REINER numeriert, datiert, codiert Elektrostempelgeräte für Belegstapel bis 2,5 mm TYP 880 Druckrolle für Textplatte plus Nadeldrucker Textplatte 62X40 mm, bis zu 3 Durchschlagen</p> |

3. *Lines as fine as possible.*
Fine lines reduce the area, so that there is more pressure on the remaining surface.
Advantage: More ink is pressed out of the ribbon, so that the impression has better contrast (this rule applies generally to large print surfaces).

What must be taken into account when the printing plate is changed regularly?

When printing plates are changed regularly, their engraving should be similar, and they should be of the same type (brass or Nylonprint).

Example:

| Favourable design | Unfavourable design |
|--|---|
| <p>Printing plate 1:</p>  <p>Wareneingang EING. 01.OKT 2005</p> | <p>Printing plate 1:</p>  <p>Wareneingang EING. 01.OKT 2005</p> |
| <p>Printing plate 2:</p>  <p>Warenausgang EING. 01.OKT 2005</p> | <p>Printing plate 2:</p>  <p>REINER numeriert, datiert, codiert Elektrostempelgeräte für Belegstapel bis 2,5 mm TYP 880 Druckrolle für Textplatte plus Nadeldrucker Textplatte 62X40 mm, bis zu 3 Durchschlagen EING. 01.OKT 2005</p> |

If the printing plates have substantially different engraving, readjustment of the print roller may be necessary (Section 7 Service Instructions).

What must be taken into account when you engrave the printing plate yourself?

If you engrave the printing plate yourself, the guidelines (see above) and the height of the printing plate must be taken into account. (Sections 6.7 and 6.8)

5.2.4 Print rollers

The Model 880 can be fitted with two different types of print roller:

1. 882550-000: **hard** roller (standard)
2. 882550-001: **soft** roller (for use depending on the printing plate design (Section 6.5.6))

5.2.5 Impulse counter

The impulse counter enables the customer to record the number of stamping operations. The impulse counter can be reset by the customer.

If you require the impulse-counter option, please consult REINER.

5.2.6 Security lock for printing plate

The optional security lock (Order No. 736071-000) prevents unauthorised removal of the printing plate.

For installation and removal of the security lock, please see the operating instructions.

5.2.7 788 WIN

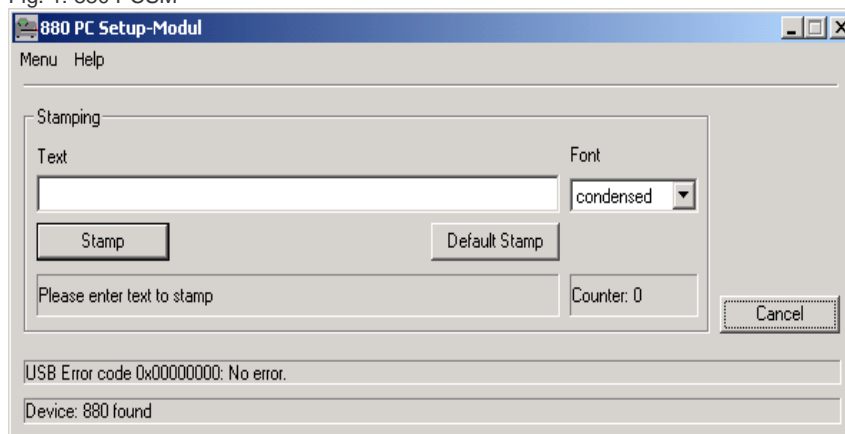
With the product 788 WIN, you can program ChipCards yourself. If you require **788 WIN**, please consult REINER.

5.2.8 880 Setup module (Customer)

At present, it is not intended to supply this module to customers (end-user customers)!

Dialog after customer password:

Fig. 1: 880 PCSM



Source: 889920-000

Only test stamping is active; there are no service functions available (The only menus available are **Menu** and **Help**)

6 Construction

Section 6 describes the construction of the machine.

Detailed descriptions and any necessary adjustments of the individual sub-assemblies are explained using the relevant assembly drawing as a basis.

References to the appropriate drawing will be found in the various sub-sections.

The parts in drawings have position numbers, which refer to the parts list.

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6.1 General notes for this section

**Note**

Spare parts are in **bold type** and are marked with an **E** in the parts list.

Example:

030 **887250-000 HOUSING, FRONT PART, CPTE.** **E**

The latest spare-parts lists may differ from the parts lists included here; they can be obtained separately from our Sales Department.

**Note**

Where indicated, spare parts should be replaced as a complete sub-assembly.

**Note**

Parts not marked as spare parts cannot be supplied!

In these cases, there is a sub-assembly that contains the parts and which can be supplied complete.

6.2 General remarks on construction

Model 880 Electric Stamps are intended for stamping tasks in offices and commerce. Because they are equipped with both a 9-needle printing head and a roller printer, they cover a wide range of applications in which documents and forms must be stamped.

To enable them to be used worldwide, they are equipped with a plug-in mains unit which adapts automatically to different voltages (90...264VAC).

In addition, a country-specific mains cable is used.

The machine is built up from sub-assemblies to simplify the rational and rapid manufacture of all types and variants. In the event of damage, this also ensures that repairs are simple, quick and trouble-free.

The following major sub-assemblies have been defined and are described in this section.

6.3 880000-000 880 DISPATCH-READY

6.3.1 Parts list

06.06.2005

:G. Version :

Mat No. : 880000-000 880 VERSANDF

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|--|------------|
| 10 | 880100-000 | EL STAMPING MACHINE 880 CPTÉ | O |
| 20 | 883800-000 | PRINTING PLATE BRASS 62X40 CPTÉ UNENGRAVED | E |
| 20 | 883800-100 | PRINTING PLATE NYLONPRINT 62X40 CPTÉ | * |
| 30 | 885100-000 | MAINS UNIT/PLUG 90...264VAC 24VDC 70W | E |
| 40 | 494801-000 | MAINS LEAD STRAIGHT PLUG SCHUKO | E |
| 40 | 494801-100 | MAINS LEAD STRAIGHT PLUG USA/CAN | E |
| 40 | 494801-200 | MAINS LEAD STRAIGHT PLUG GB | E |
| 40 | 494801-300 | MAINS LEAD STRAIGHT PLUG CH | E |
| 50 | 887100-000 | CASSETTE CPTÉ BLACK 880 | E |
| 50 | 887100-001 | CASSETTE CPTÉ RED 880 | E |
| 60 | 887350-000 | DOCUMENT CONTACT CPTÉ | E |
| 70 | 887380-000 | ACCESSORIES FOR DOCUMENT CONTACT | E |
| 80 | 888900-000 | OPERATING INSTRUCTIONS 880 GERMAN | E |
| 80 | 888900-001 | OPERATING INSTRUCTIONS 880 ENGL | E |
| 80 | 888900-002 | OPERATING INSTRUCTIONS 880 FRENCH | E |
| 80 | 888900-003 | OPERATING INSTRUCTIONS 880 SPAN | E |
| 80 | 888900-004 | OPERATING INSTRUCTIONS 880 ITAL | E |
| 90 | 888910-000 | BRIEF INSTRUCTIONS 880 GERMAN | E |
| 90 | 888910-001 | BRIEF INSTRUCTIONS 880 ENGL | E |
| 90 | 888910-002 | BRIEF INSTRUCTIONS 880 FRENCH | E |
| 90 | 888910-003 | BRIEF INSTRUCTIONS 880 SPAN | E |
| 90 | 888910-004 | BRIEF INSTRUCTIONS 880 ITAL | E |
| 100 | 886194-000 | BATTERY 1V5 300MAH AAA PRIMARY | E |
| 110 | 886194-000 | BATTERY 1V5 300MAH AAA PRIMARY | E |
| 120 | 888110-000 | STYROPOR PACKING SET 880 | |
| 130 | 888120-000 | CORRUGATED CARDBOARD BOX 575X230X265MM | |
| 140 | 888125-000 | CORRUGATED PAPER INSERT 225X565 MM | |
| 150 | 331604-000 | BAG OF DESSICANT | |
| 160 | 502770-000 | POLY-ETHYLENE BAG 450/270X950X 0,075MM | |
| 170 | 381109-000 | STICKER: VORSICHT-EMPF GERAET 192X38 RT | |
| 170 | 381109-100 | STICKER: FRAGILE HANDLE CARE 192X38 RT | |
| 180 | 076146-000 | STICKER: PICTOGRAMMES 4 OFF 105X148 RT | |
| 190 | 736071-000 | SECURITY LOCK RIGHT FOR OPERATOR | E |
| 200 | 888130-000 | CORRUGATED PAPER INSERT 83 X 52 X 8 | |
| 270 | 889101-000 | PROGRAM OVERVIEW 880 FIRMWARE | |

* For spare parts, see Section 6.8

6.3.2 Illustrations:

Individual parts list positions are shown as accessories in the [operating instructions](#).

6.4 880100-000 EL. STAMPING MACHINE 880 CPTE.

6.4.1 Parts list

07.06.2005

G. Version : B

Mat. No. : 880100-000 EL STAMPING MACHINE 880 CPTE

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|-------------------|--|------------|
| 10 | 882000-000 | EL STAMPING MACHINE 880 VM | O |
| 20 | 883090-000 | INSULATION | |
| 30 | 887250-000 | HOUSING FRONT PART CPTE | E |
| 40 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 50 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 60 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 70 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 80 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 90 | 887233-000 | HOUSING REAR PART PAINTED | E |
| 100 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 110 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 120 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 130 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 140 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 150 | 887270-000 | BASE COVER CPTE | E |
| 160 | 685244-137 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 170 | 685244-137 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 180 | 685244-137 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 190 | 685244-137 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 200 | 887280-020 | TYPEPLATE 63X35 24V CE/GS NEMKO | |
| 210 | 887220-000 | COVER CPTE | |
| 210 | 887220-010 | COVER CPTE SPARE PART ONLY | E |
| 220 | 887261-000 | SCREW COVER SET PAINTED | E |
| 230 | 738220-001 | SIDE STOP 730-741 RED | E |
| 240 | 738220-001 | SIDE STOP 730-741 RED | E |

6.5 882000-000 EL. STAMPING MACHINE 880 VM

6.5.1 Parts list

01.06.2005

DRG. Versior B

Mat. No. : 882000-000 EL STAMPING MACHINE 880 VM

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|---|------------|
| 10 | 882120-000 | SIDE PLATE REAR VM | E |
| 20 | 882450-000 | PUSHER CPTE | E |
| 30 | 882300-210 | DRIVE CPTE TIMER | E |
| 40 | 882410-000 | PRINT UNIT CPTE | E |
| 50 | 887320-000 | TABLE CPTE | E |
| 60 | 882580-000 | ROLLER TRACK COVER | E |
| 70 | 883010-000 | UPPER PART CPTE | E |
| 80 | 882112-000 | SIDE PLATE FRONT CPTE | E |
| 90 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 100 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 110 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 120 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 130 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 140 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 150 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 160 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 170 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 180 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 190 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 200 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 210 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 220 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 230 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 240 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 250 | 882340-010 | CRANK CPTE | E |
| 260 | 530889-084 | RETAINING RING 6.0 DIN 6799 ST BLUE | |
| 270 | 882240-000 | CONNECTING ROD CPTE | E |
| 280 | 530889-064 | RETAINING RING 4.0 DIN 6799 ST BLUE | |
| 290 | 882550-000 | PRINT ROLLER CPTE 97 SHORE A (white) | E |
| 290 | 882550-001 | PRINT ROLLER CPTE 93 SHORE A (red) | E |
| 300 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 310 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 320 | 882252-000 | TENSION SPRING DA 9.6XL0 138XC 0.143XD1.0 | |
| 330 | 165123-000 | COMPR SPRING DA=4,8 L0=15,0 D=0,4 C=0,44 | |
| 340 | 165123-000 | COMPR SPRING DA=4,8 L0=15,0 D=0,4 C=0,44 | |
| 350 | 886100-000 | CONTROL BOARD 880 KPL | E |
| 355 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 360 | 882142-064 | SPACER SLEEVE 7X5X6.4 | E |
| 370 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | E |
| 390 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 400 | 882712-000 | TABLE TRIPPING LEVER | E |
| 410 | 041049-021 | PLAIN WASHER 4.1X8.0X1.0 ST ZN-PL V | |
| 410 | 300107-020 | PLAIN WASHER 4.2X8.0X0.8 CUZN-BLK | |
| 420 | 041049-021 | PLAIN WASHER 4.1X8.0X1.0 ST ZN-PL V | |
| 420 | 300107-020 | PLAIN WASHER 4.2X8.0X0.8 CUZN-BLK | |

**Warning**

This sub-assembly contains elements with highly pre-loaded springs. Because of the danger of injury, dismantling may only be carried out by trained, specialist personnel!

**Warning**

Because it contains elements with highly pre-loaded springs, the safety screws must be inserted **before** dismantling sub-assembly 882410-xxx!

Please see **Drawing 882410-000**.

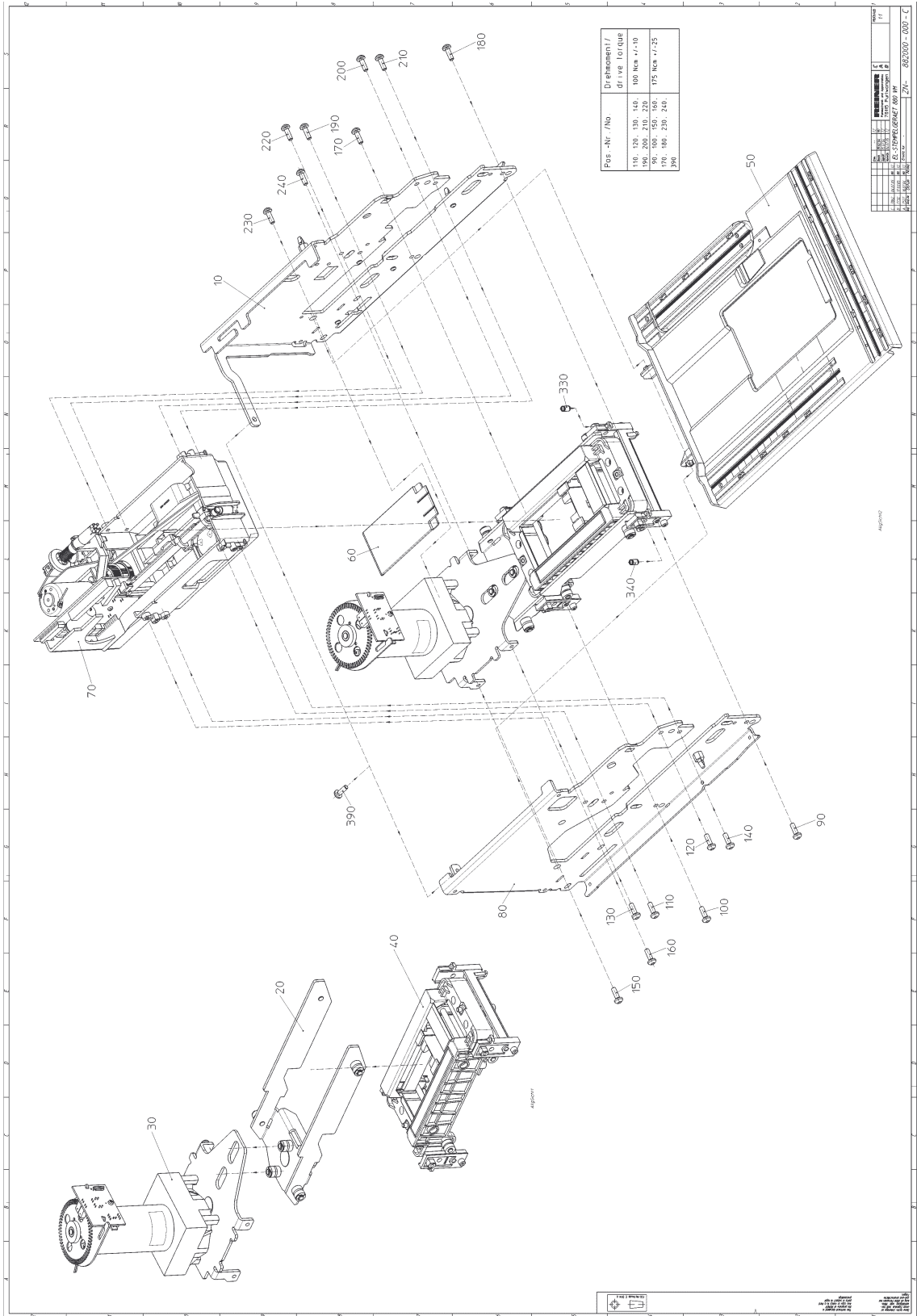
Safety screw:

165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED

Position numbers 400 and 410

For safety reasons, dismantling sub-assembly 882410-000 PRINT UNIT CPTE. must only be carried out by REINER!

6.5.2 Illustrations: DRG. NO. 882000-000 Sheet (1) EL. STAMPING MACHINE 880 VM

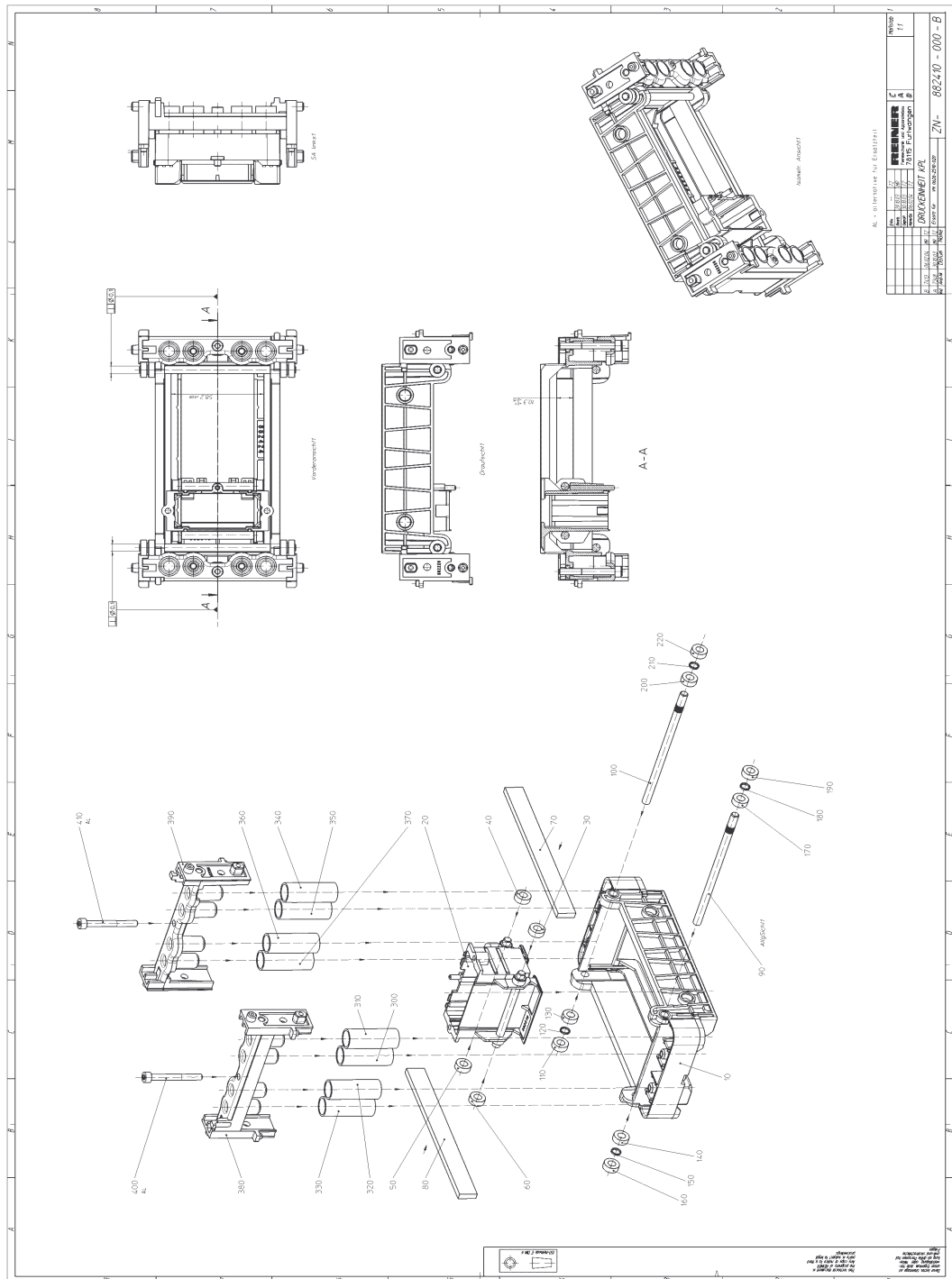


6.5.4 Illustrations: DRG. NO. 882410-000 PRINT UNIT CPTE.



This sub-assembly contains elements with highly pre-loaded springs, and must therefore be replaced as a complete unit.

Warning

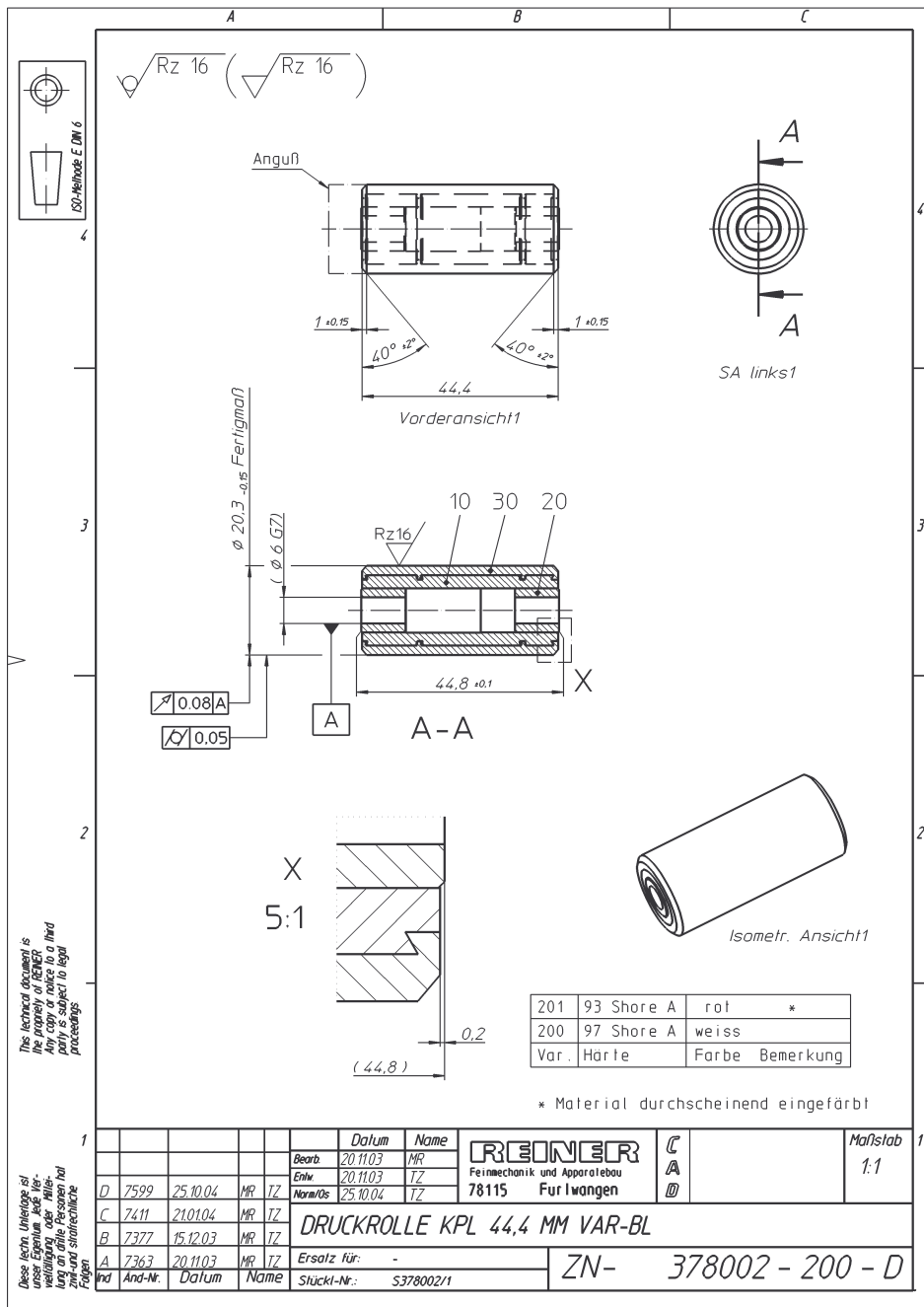


6.5.6 Illustrations:
DRG. NO 378 002-200 PRINT ROLLER CPTE. 44.4 MM, 97 SHORE A, WHITE
DRG. NO 378 002-201 PRINT ROLLER CPTE. 44.4 MM, 93 SHORE A, RED



Drawing for information only.
 Print roller 378 002-20x is not available as a spare part.
 For replacement purposes, use Print roller unit cpte. 882550-00x.

Note



6**880****Construction****REINER
service****6.6 883010-000 UPPER PART CPTE.****6.6.1 Parts list**

06.06.2005

.G. Version : D

Mat. No. : 883010-000 UPPER PART CPTE

| Pos. No.: | Mat. No. : | Designation | Spare part |
|------------------|-------------------|--|-------------------|
| 10 | 883830-000 | PRINT HOLDER | |
| 20 | 883835-000 | SHAFT 6.0X145 | |
| 30 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | |
| 40 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | |
| 50 | 883900-000 | PRINT SLIDE CPTE | O |
| 60 | 104322-000 | TENSION SPRING DA 7.5XL0 20.0XC 1.55XD0.8 | |
| 70 | 104322-000 | TENSION SPRING DA 7.5XL0 20.0XC 1.55XD0.8 | |
| 80 | 883920-000 | TENSIONING ROLLER CPTE | E |
| 90 | 33162-040 | WASHER 4.2X10X0.5 CUZN-BLK | |
| 100 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 110 | 883500-001 | DK AND FB DRIVE CPTE SLEEVE FREEWHEEL | E |
| 120 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 130 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 140 | 685244-241 | PAN-HD SCR TORX M4X12 TAPT DIN7985 ZN-PL | |
| 150 | 571080-022 | TIMING BELT MXL Z-184 B-6.35 | E |
| 160 | 886200-000 | NEEDLE DRIVER 880 CPTE | E |
| 170 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | |

6.7 883800-000 PRINTING PLATE, BRASS 62X40 CPTÉ UNENGRAVED**6.7.1 Parts list**

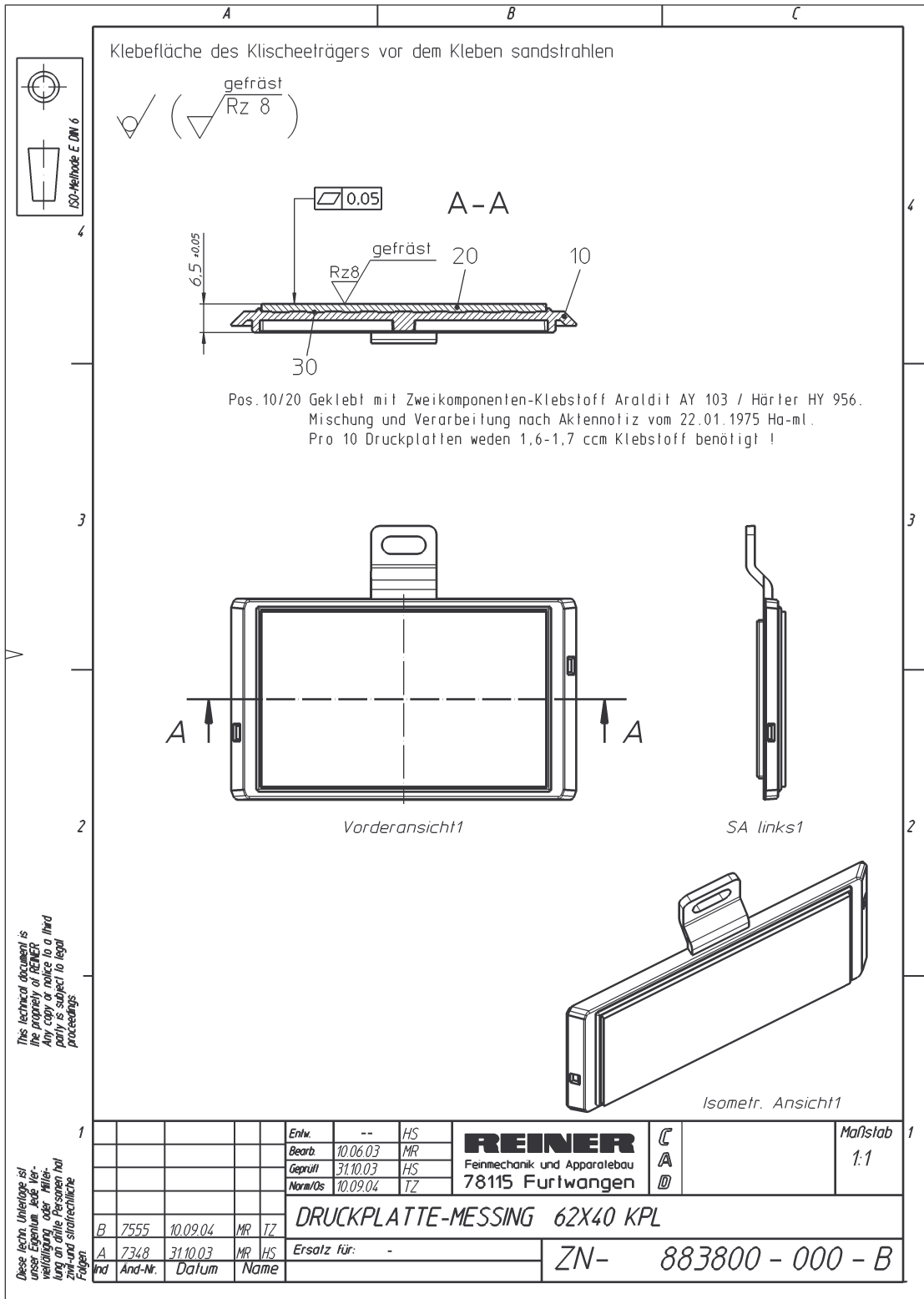
08.06.2005

3. Version : B

Mat. No. : 883800-000 PRINTING PLATE BRASS 62X40 CPTÉ

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|---------------------------------------|------------|
| 10 | 883810-000 | PRINTING PLATE CARRIER | E |
| 20 | 883820-000 | PRINTING PLATE BRASS 65X40 | |
| 30 | 022031-000 | TWO-COMPONENT ADHESIVE ARALDITE AY103 | |

6.7.2 Illustrations:
DRG. NO. 883800-000 PRINTING PLATE, BRASS 62X40 CPTE., UNENGRAVED



6.8 883800-100 PRINTING PLATE, NYLONPRINT 62X40 CPTE.**6.8.1 Parts list**

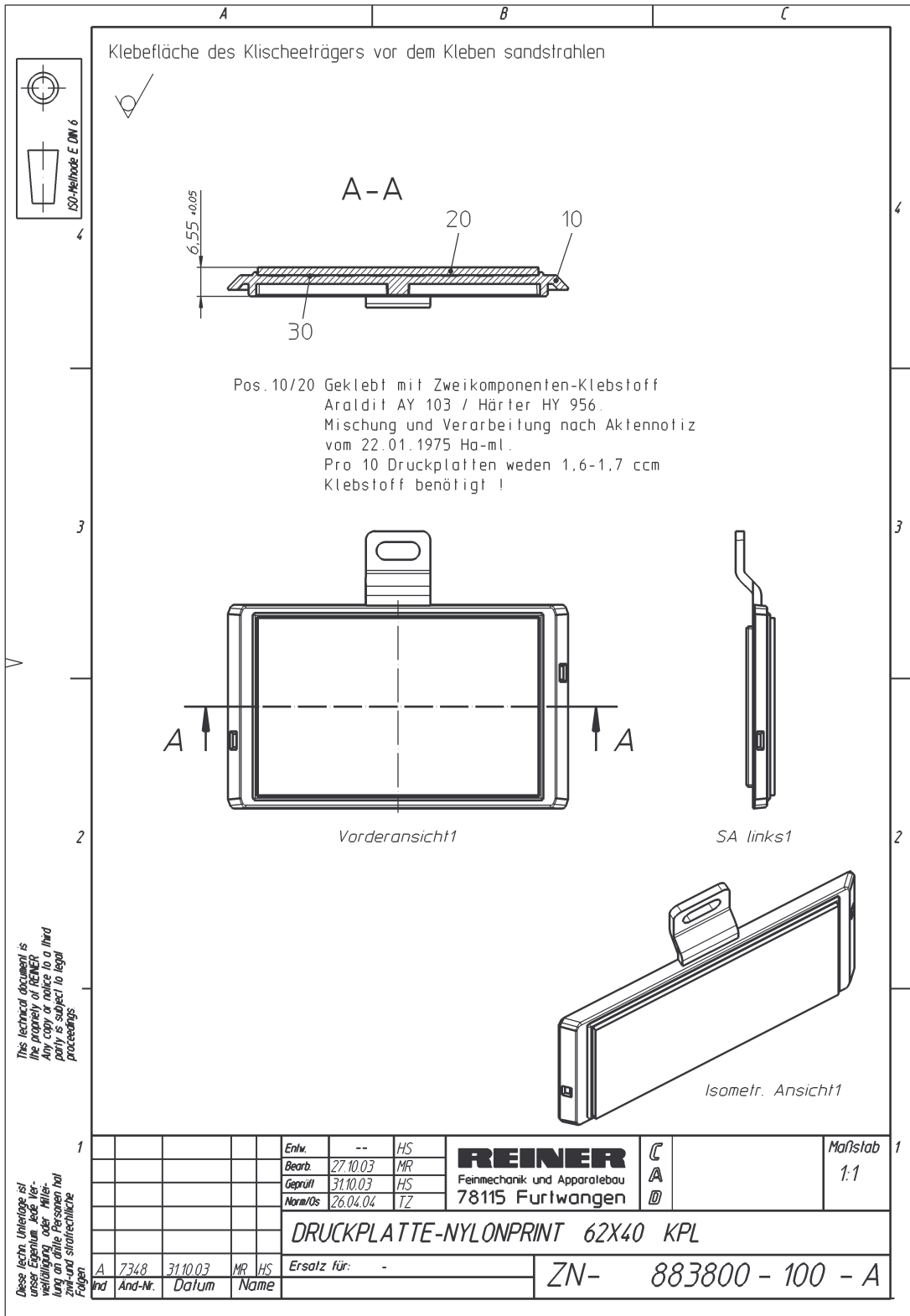
08.06.2005

DRG. Version A

Mat. No. : 883800-100 PRINTING PLATE NYLONPRINT 62X40 CPTE

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|-------------|---------------------------------------|------------|
| 10 | 883810-000 | PRINTING PLATE CARRIER | E |
| 20 | 8043200-214 | NYLOPRINT PLATE WA II 175 240 X 320 | |
| 30 | 22031-000 | TWO-COMPONENT ADHESIVE ARALDITE AY103 | |

6.8.2 Illustrations:
DRG. NO. 883800-100 PRINTING PLATE, NYLONPRINT 62X40 CPTE.



6.9 883900-000 PRINT SLIDE CPTE.**6.9.1 Parts list**

06.06.2005

DRG. Version A

Mat. No. : 883900-000 PRINT SLIDE CPTE

| Pos. No. : | Mat. No. : | Designation | Spare part |
|------------|------------|---|------------|
| 10 | 883910-000 | PRINT SLIDE MICROLYS K1200 | |
| 20 | 572058-513 | BALL BRG 5 X 16 X 5 MM /2 SHIELDS | |
| 30 | 780850-102 | PRINTER HEAD 9-NEEDLE 12V MICROLYS | E |
| 40 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | E |
| 50 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | E |

6.9.2 Illustrations: DRG. NO. 883900-000 PRINT SLIDE CPTE.

| | | | |
|--|----------|---------------|------|
| Entw. | HS | MA/SLAB | 1:1 |
| Beauf. | 31.03.03 | WF | |
| Gezeichnet | 21.11.03 | HS | |
| Revidiert | 29.06.04 | HS | |
| REINER Feinmechanik und Apparatebau 78115 Pfortwangen | | | |
| DRUCKSCHLITTEN KPL | | | |
| A. 2350 | | 21.11.03 | HS |
| MA | ANW. | DAUM | Name |
| ZN- 883900 - 000 - A | | Ersatz für: - | |

6.10 887250-000 HOUSING, FRONT PART, CPTE.

6.10.1 Parts list

06.06.2005

DRG. Version B

Mat. No. : 887250-000 HOUSING FRONT PART CPTE

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|---|------------|
| 10 | 887251-000 | HOUSING FRONT PART LASER-MARKED | E |
| 30 | 790117-000 | WINDOW | E |
| 40 | 790119-880 | CONTROL BUTTON 880 | E |
| 50 | 790119-880 | CONTROL BUTTON 880 | E |
| 60 | 790119-880 | CONTROL BUTTON 880 | E |
| 70 | 790119-880 | CONTROL BUTTON 880 | E |
| 80 | 790122-000 | LC-DISPLAY 122 X 32 DOT CPTE | E |
| 90 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | E |
| 100 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | E |
| 110 | 685244-077 | PAN-HD SCR TORX M2.5X8 TAPT DIN7985 ZN-PL | E |

6.11 887220-010 COVER CPTE., SPARE PART ONLY

6.11.1 Parts list

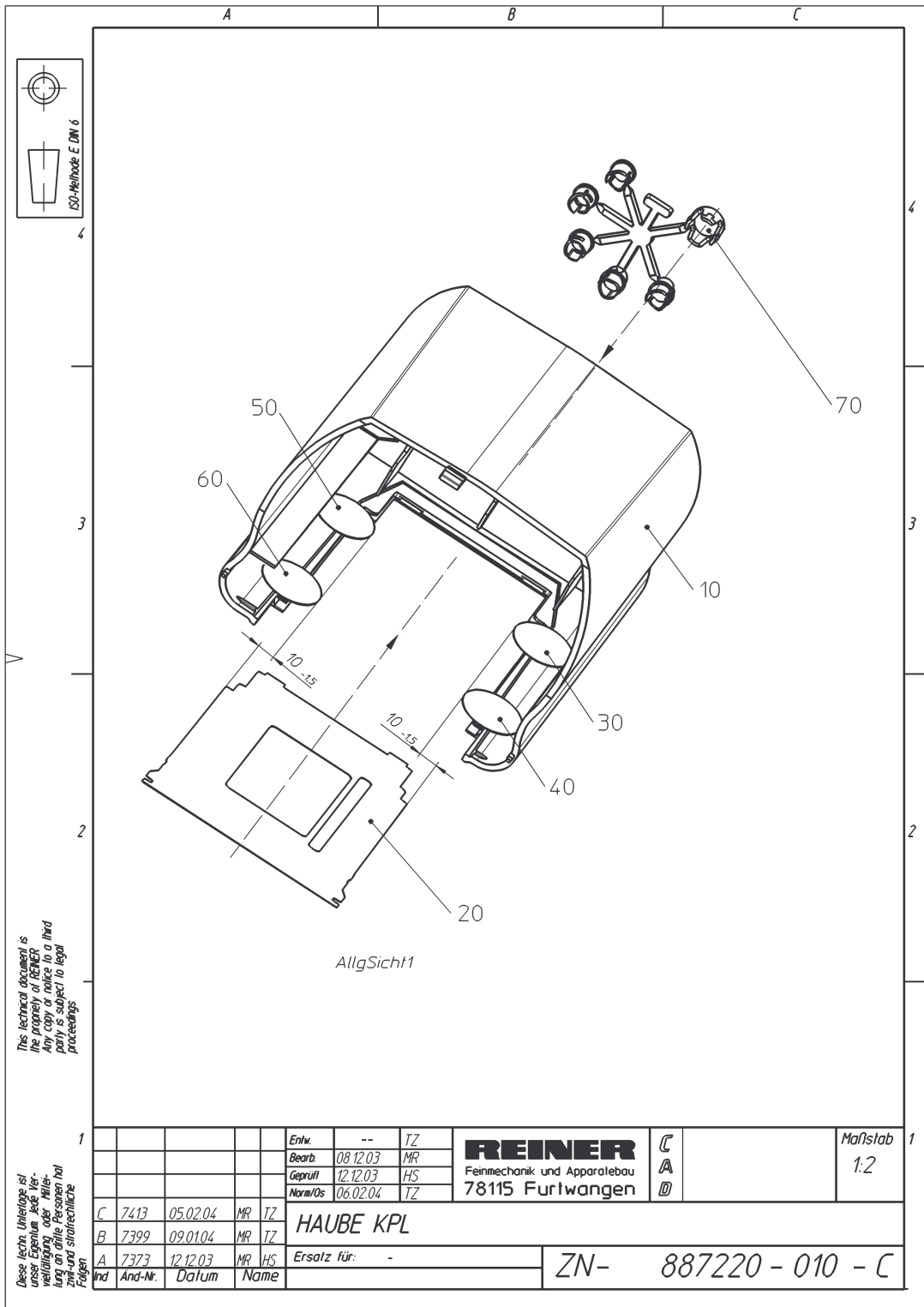
27.06.2005

DRG. Version : C

Mat. No. : 887220-010 COVER CPTE SPARE PART ONLY

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|--|------------|
| 10 | 887221-000 | COVER LASER-MARKED | |
| 20 | 887228-010 | MASK FOR INK RIBBON | |
| 30 | 887226-000 | ADHESIVE CUT-OUT DM30 STEIERF 87-60157 | |
| 40 | 887226-000 | ADHESIVE CUT-OUT DM30 STEIERF 87-60157 | |
| 50 | 887226-000 | ADHESIVE CUT-OUT DM30 STEIERF 87-60157 | |
| 60 | 887226-000 | ADHESIVE CUT-OUT DM30 STEIERF 87-60157 | |
| 70 | 887261-000 | SCREW COVERS SET PAINTED | |

6.11.2 Illustrations: DRG. NO. 887220-010 COVER CPTE., SPARE PART ONLY



6.12 887320-000 TABLE CPTE.**6.12.1 Parts list**

22.06.2005

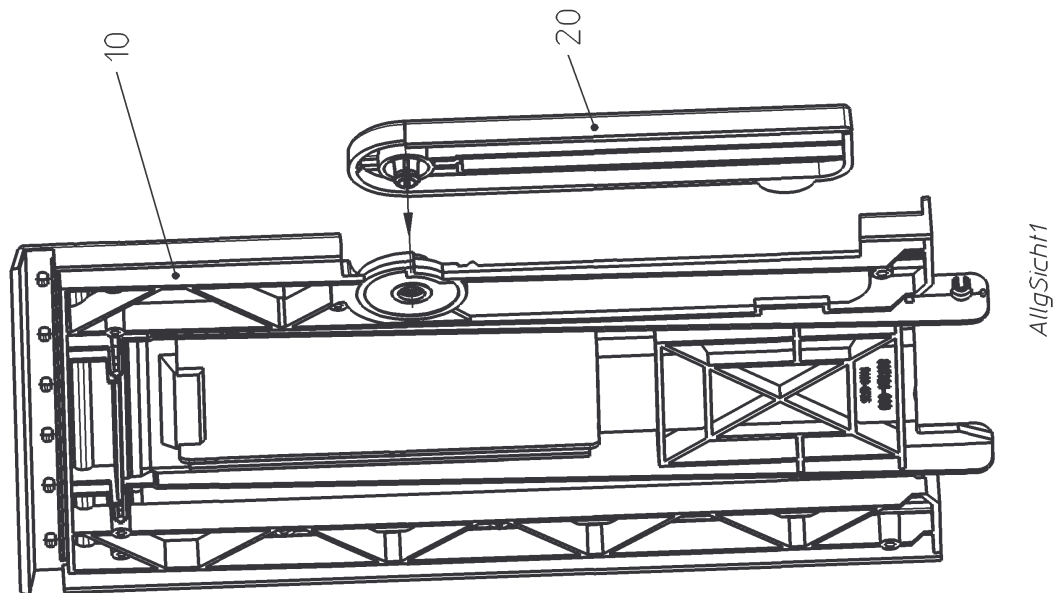
DRG. Version : A

Mat. No. : 887320-000 TABLE CPTE

| Pos. No.: | Mat. No. : | Designation | Spare part |
|-----------|------------|-------------|------------|
| 10 | 887324-000 | TABLE | |
| 20 | 887326-000 | PIVOTED ARM | E |

6.12.2 Illustrations: (DRG. NO. 887320-000 TABLE CPTE.)

Fig. 2: Ersatzteil_887320-000_Tisch_kpl



Source: ZN_887320_000_A_1

6.13 Sensors and actuators

Actuators are the muscles and sensors the feelers of the machine, i.e. actuators move machine parts and the sensors either initiate or record the motions.



The functionality of sensors and actuators can be verified by using the SF module.

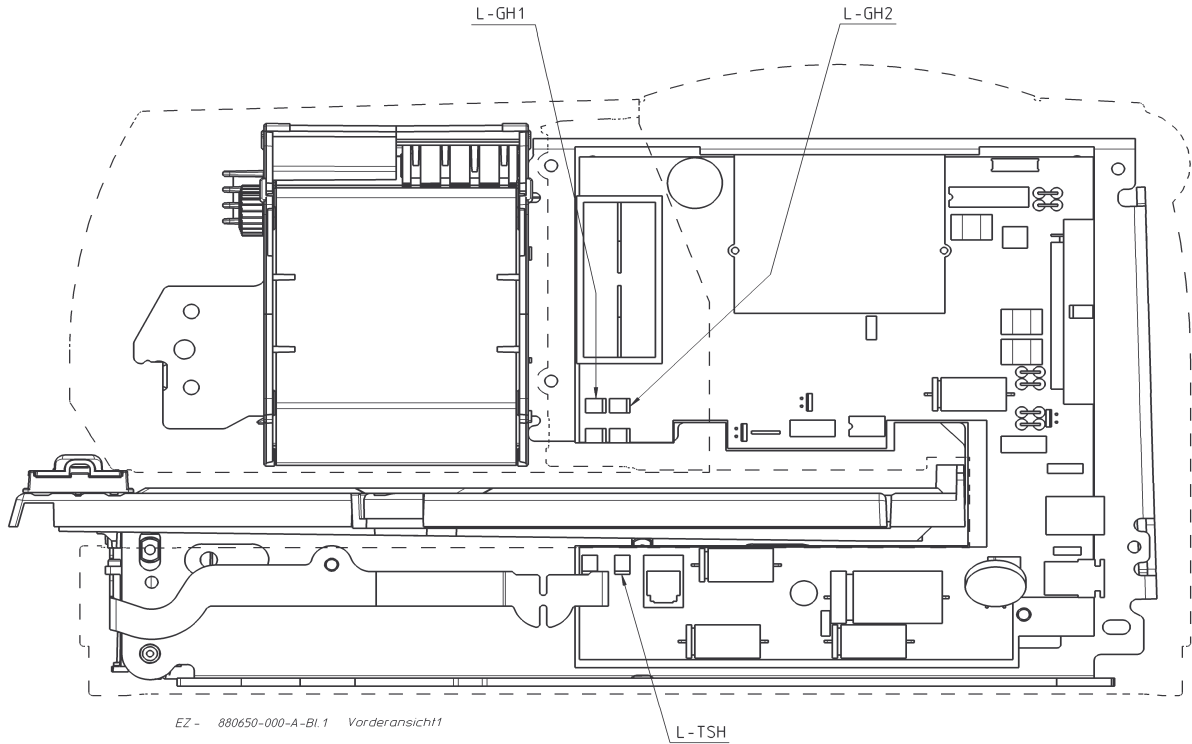
Note

6.13.1 Designations, locations and functions

- L-GH1: Photocell 1, for monitoring whether the housing is closed.
Position: *Control board 880*
Comment: *L-GH1 is used by the hardware.*
- L-GH2: Photocell 2, for monitoring whether the housing is closed.
Position: *Control board 880*
Comment: *L-GH2 is used by the software.*
- L-TSH: Photocell for table-initiated tripping
Position: *Control board 880*
- L-ANS: Photocell for document-initiated tripping
Position: *STP-ANS 880 CPTE.*
- L-DKT: Photocell for recording cycles of print-head drive
Position: *Needle driver 880*
- L-DKP: Photocell for detecting position of print-head drive
Position: *Needle driver 880 (flag direct on print head)*
- L-DW1: Photocell for recording cycles of print-carriage drive
Position: *STP DWA (cycle disc direct on second end of motor shaft)*
- L-DW2: Photocell for detecting forward or return motion (90° to L-DWT face)
Position: *STP DWA (cycle disc direct on second end of motor shaft)*
- L-DWP: Photocell for detecting position of print carriage
Position: *Control board 880*
- MO-DWA: DC motor *with spur-gear reducer* for driving print carriage and raising and lowering the print-carriage unit
- MO-DKA: DC motor for driving print head and ink-ribbon transport
- DK: NEEDLE-PRINTER HEAD, 9-NEEDLE, 12V MICROLYS (780850-002)

6.13.2 Positions of sensors and actuators

Fig. 3: Lage Sensor u Aktuator Bild2



Source: EZ_880650_000_A_1

Fig. 4: Lage Sensor u Aktuator

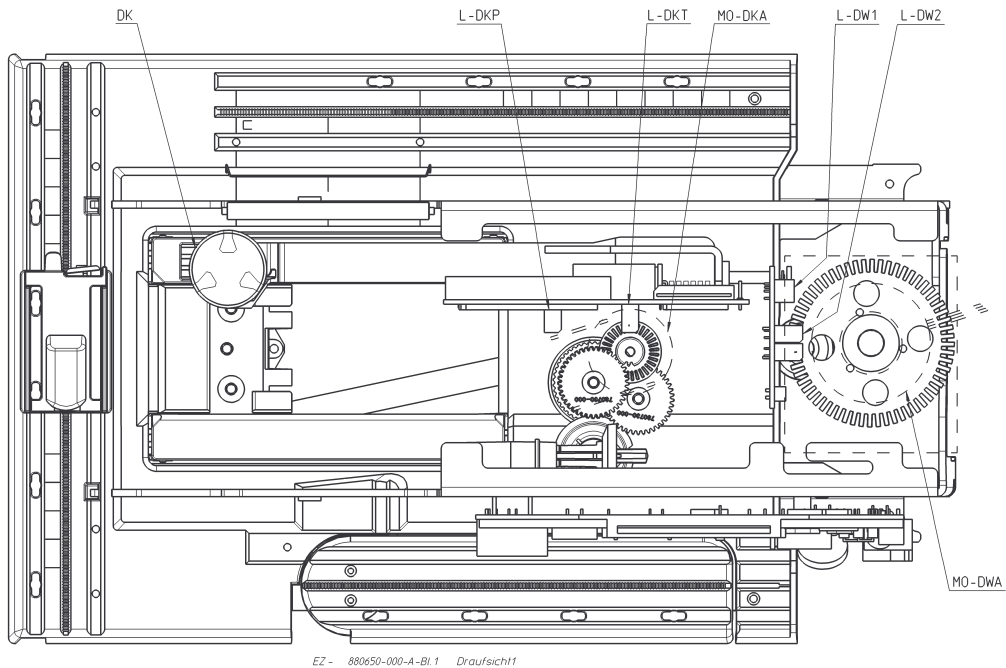
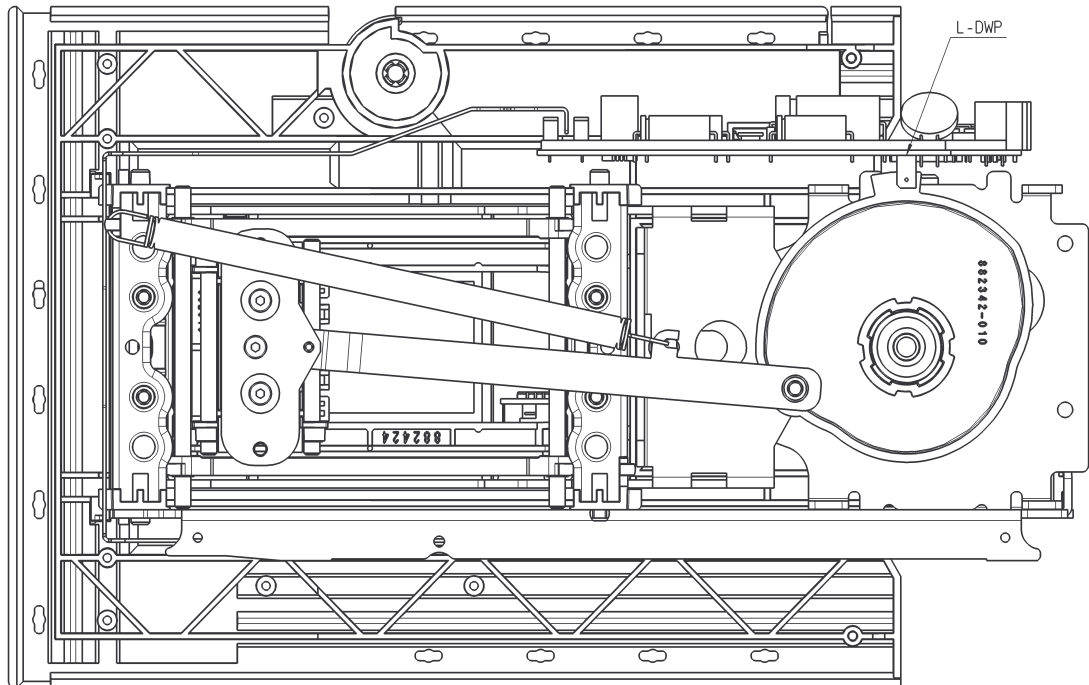


Bild1

Source: EZ_880650_000_A_1

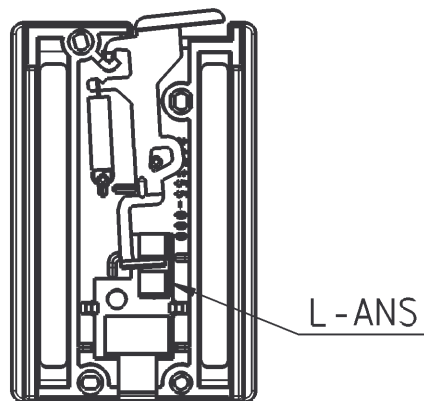
Fig. 5: Lage Sensor u Aktuator Bild3



EZ - 880650-000-A-BI.1 Untersicht1

Source: EZ_880650_000_A_1

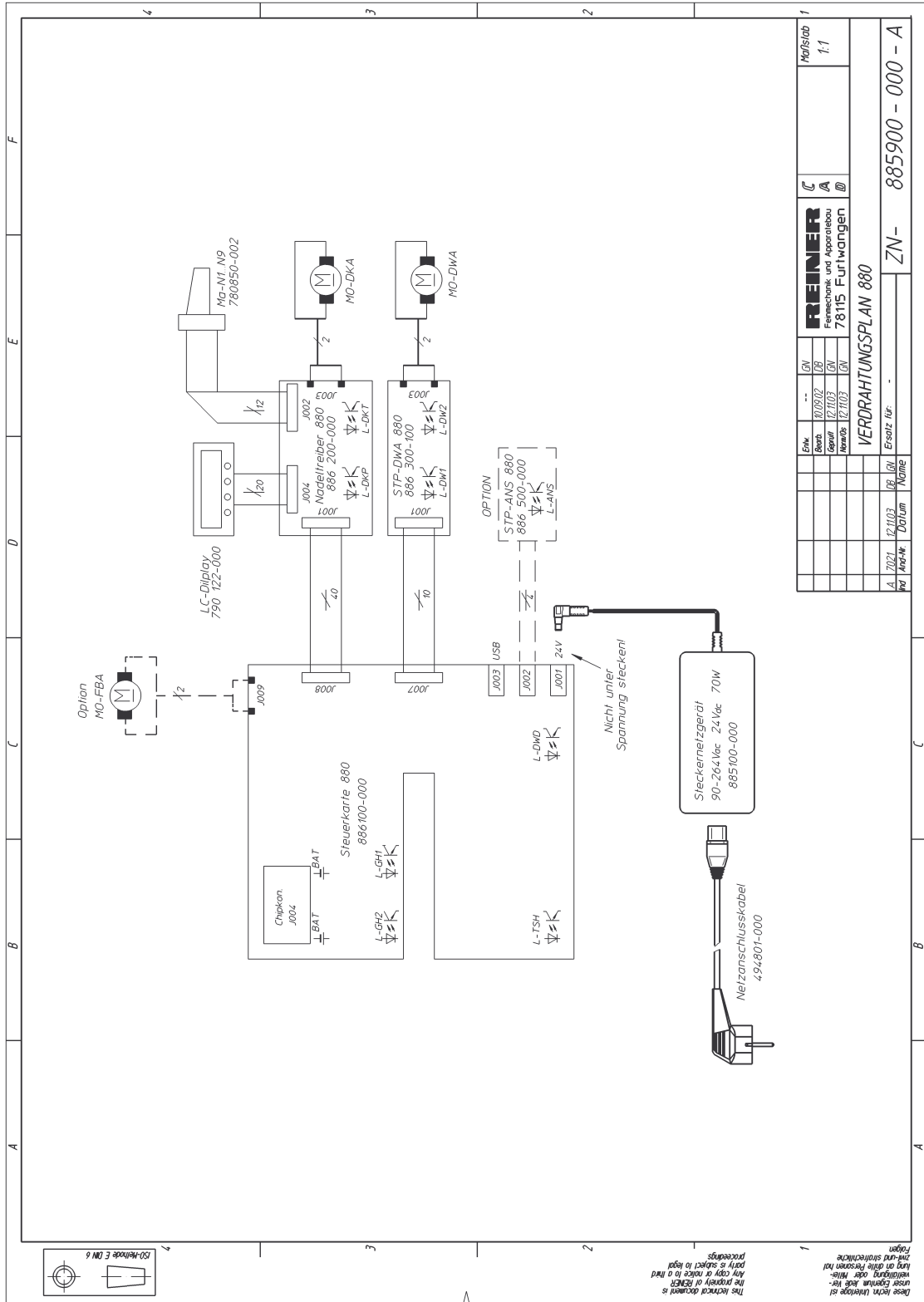
Fig. 6: Lage Sensor u Aktuator Bild1

*Draufsicht2*

EZ - 880650-000-A-BI.1

Source: EZ_880650_000_A_1

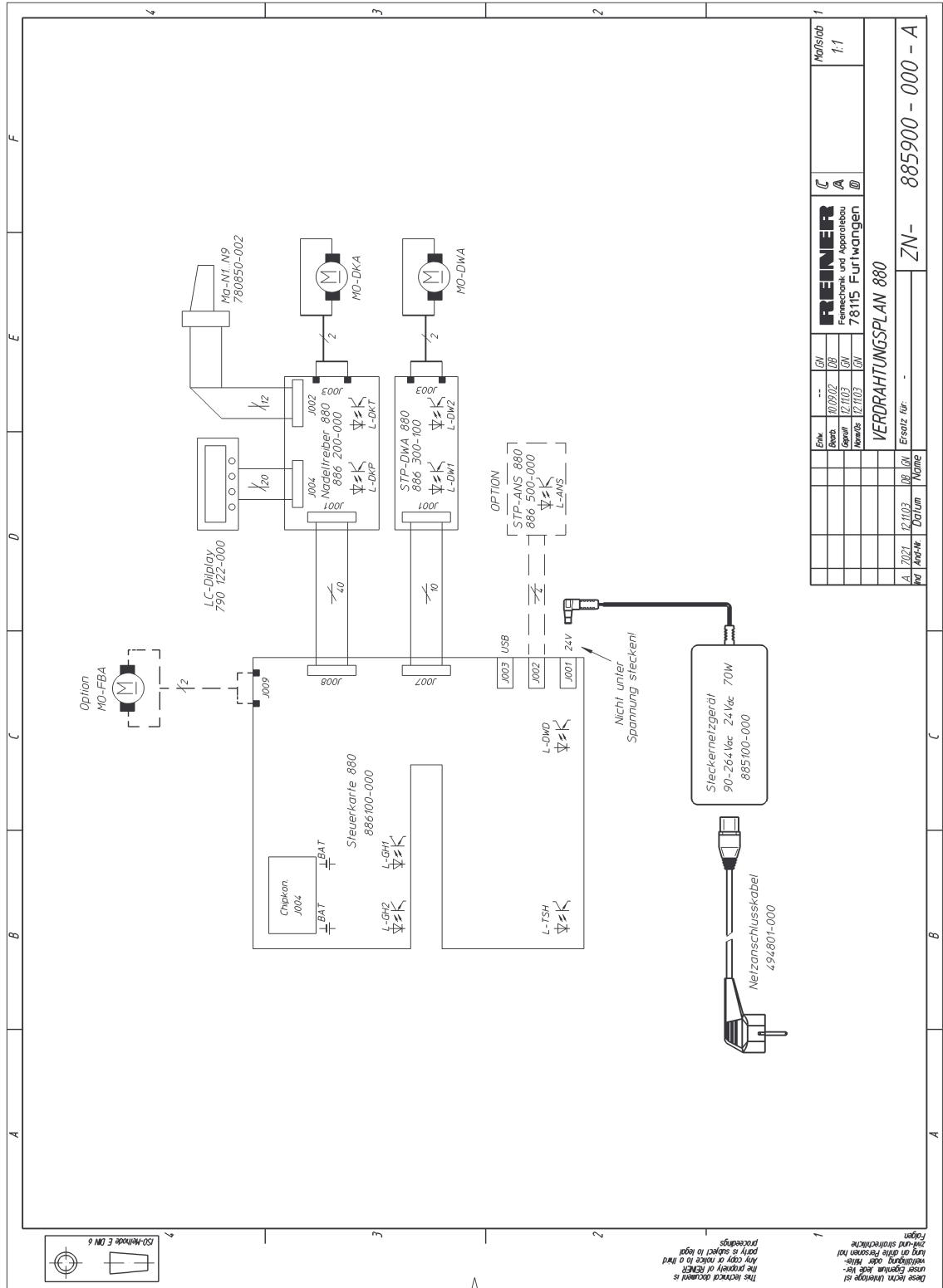
6.14 Wiring diagram 880



| | | | | | |
|----------------------------|----------|----|----------------------|---------|-----|
| Enw. | 12/03/02 | GN | C | Maßstab | 1:1 |
| Bezn. | 12/11/03 | DB | A | | |
| Gez. | 12/11/03 | GN | D | | |
| Revis. | 12/11/03 | GN | | | |
| VERBAHRUNGSPLAN 880 | | | | | |
| Zusatz für | | | ZN- 885900 - 000 - A | | |
| A. 7021 | 12/11/03 | DB | GN | | |
| Aut. | | | | | |
| | | | | | |

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6.15 Block diagram, Control Board 880



7 Service Instructions

This section supplements [Section 6 Construction](#).

It gives information about the tools required, and explains the most important adjustments.

The Service Instructions provide a rapid overview, and give instructions for dismantling in the event of a repair being necessary.

Contents of Section 7

| | | |
|-----|--|------|
| 7.1 | SERVICE TOOLS | 7-2 |
| 7.2 | ADJUSTMENT INSTRUCTIONS | 7-4 |
| 7.3 | DISMANTLING AND REPLACEMENT INSTRUCTIONS | 7-14 |
| 7.4 | FUNCTION TESTING | 7-24 |

7.1 Service tools

7.1.1 Mechanical tools

For repair of the **880**, the tools most commonly required are listed below:

- TORX screwdriver T20
 - TORX screwdriver T10
 - TORX screwdriver T8 (long version)
 - Hexagon screwdriver 2.5 A/F
 - Hexagon screwdriver 3 A/F
 - Pliers
 - Standard screwdrivers
 - Pincers
-
- USB cable (commercially-available)

7.1.2 Fasteners used

165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED

Further fasteners and related elements are given in the parts lists in [Section 6](#).

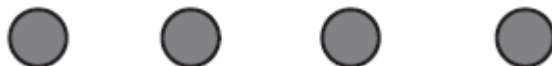
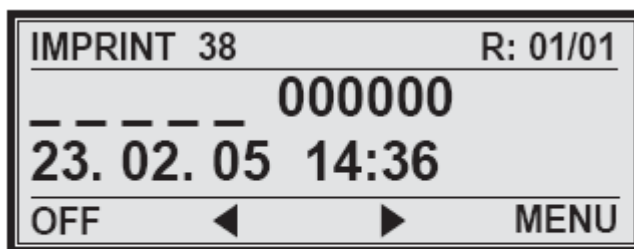
7.1.3 Software tools

For adjustments, analysis, and loading new firmware on to the 880, three software tools are available.

7.1.3.1 User interface (menu)

User interface (menu) for customer-specific settings.

Fig. 7: Bedieneroberfläche



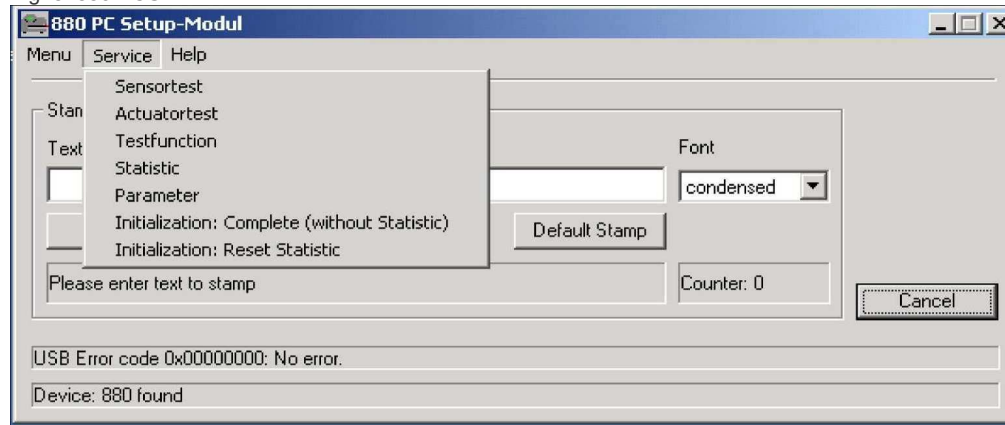
Source: Bedienungsanleitung 880 English

For further details of the user interface (menu), please see the operating instructions.

7.1.3.2 880 PC setup module (Service)

The following service functions can be carried out using the 880 PC Setup Module:

Fig. 8: 880 PCSM



Source: 889920-000



Note

The dealer password is required to give access to the service functions .
The password must be requested from REINER.



Note

The *880 PC Setup Module* can be obtained from REINER under the following order number.

Order No.: 889920-000

The *880 PC Setup Module* is delivered by e-mail and includes:

- *880 PC Setup Module*
- Instructions
- Driver (USB)

7.1.3.3 880 PC Update

The software *880 PC Update* enables updating of the firmware.



Note

The dealer password is required to give access to the service functions .
The password must be requested from REINER.



Note

The *880 PC Update* software can be obtained from REINER under the following order number.

Order No.: 889910-000

The *880 PC Setup Module* is delivered by e-mail and includes:

- *880 PC Update*
- Instructions
- Driver (USB)
- Current **firmware**

7.2 Adjustment instructions

This section supplements [Section 6 Construction](#).



Warning

For safety reasons, the power supply must always be disconnected when working on parts inside the housing!

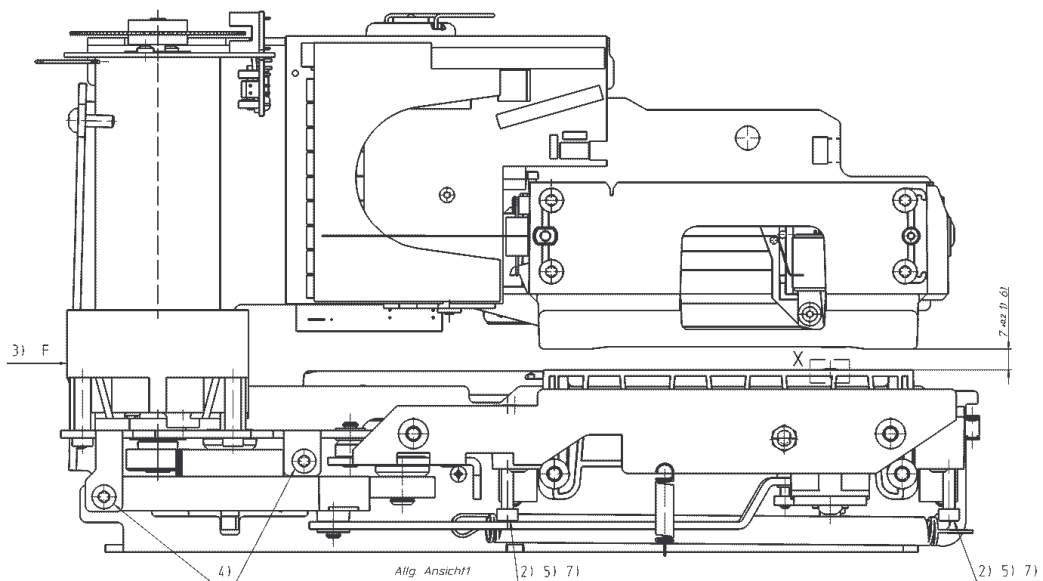


7.2.1 Adjusting the document gap

If the document gap is not correctly adjusted, the edges of documents snag on the support pad. (Section 6.5)

Fig. 9: Justage-Belegspalt_Bild1

2.0 Justage Belegspalt /
adjustment document gap



Source: ZN_882000_000_C_2

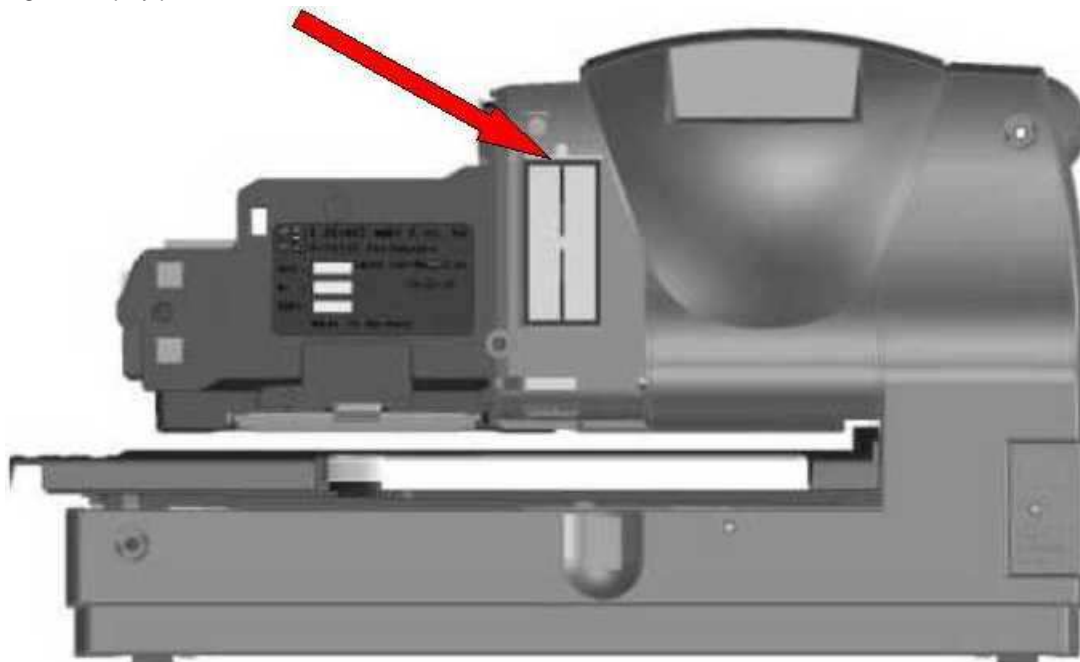
1. Screw in 2x safety screws **(2)**
(165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED)
2. Assemble a document stack (paper) 7mm thick
3. Screw in 2x safety screws **(2)**
4. Push the Drive cpte. with crank towards the Slide **(3)**
5. Tighten the 4x screws holding the Drive cpte.**(4)**
6. Tighten the 2x safety screws **(2)**
7. Remove the document stack (spacer)
8. Loosen and remove the 2x safety screws **(2)**

7.2.2 Adjusting the display

The display contrast is set using a potentiometer on the 880 control board. This setting is carried out in our works and will normally not require adjustment during the life of the machine.

Rules for setting: Turning anti-clockwise: reduces the contrast.
 Turning clockwise: increases the contrast.

Fig. 10: Display-poti.



Source: SD-880000-000



The range of adjustment is very small and thus very sensitive.

Note

7.2.3 Adjusting the print roller

Depending on the design on the printing plate, the print roller may need to be adjusted.

When the machine is assembled, the print roller is set to give a uniform impression with an unengraved printing plate.

As long as the printing plate is symmetrically engraved (the lines of text are symmetrical about the middle of the plate), the impression will be uniformly coloured.

If the engraving is asymmetrically positioned on the printing plate, it may be necessary to adjust the printing roller.

Adjustment is carried out by turning the left or right screw on the print roller unit.

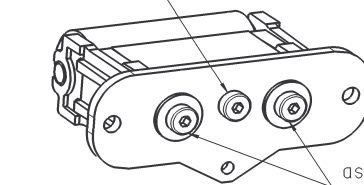
Fig. 11: Justage-Druckrolle_Bild1

3.1 Justage der Druckrolle adjustment pressing roll

Je nach Gestaltung
der Druckplatte

depending on design of
the textplate

symmetrische Druckplatte/
symmetric textplate



AllgSicht3

asymmetrische Druckplatte/
asymmetric textplate

Source: ZN_882000_000_B_2

The screws are accessible with a hexagon screwdriver through holes in the base plate of the machine (hexagon screwdriver 2.5A/F).

Fig. 12: Justage-Druckrolle_Bild2



Source: SD-880000-000

It is, however, helpful if the base plate is removed before adjusting the print roller!
(See Section 6.4)

As a rule, the screw opposite the engraved pattern is released slightly (in ¼-turn steps), while the screw opposite the unengraved (milled away) part of the plate is tightened in ¼-turn steps.

If, in spite of loosening/tightening the screws through several stages, you cannot achieve a successful result, the middle screw can be loosened slightly to provide more play.

**Note**

The Model 880 can be fitted with two different types of print roller:

1. 882550-000: hard roller (standard)
2. 882550-001: **soft** roller (for use depending on the printing plate design)

7.2.4 Adjusting the needle-printer head

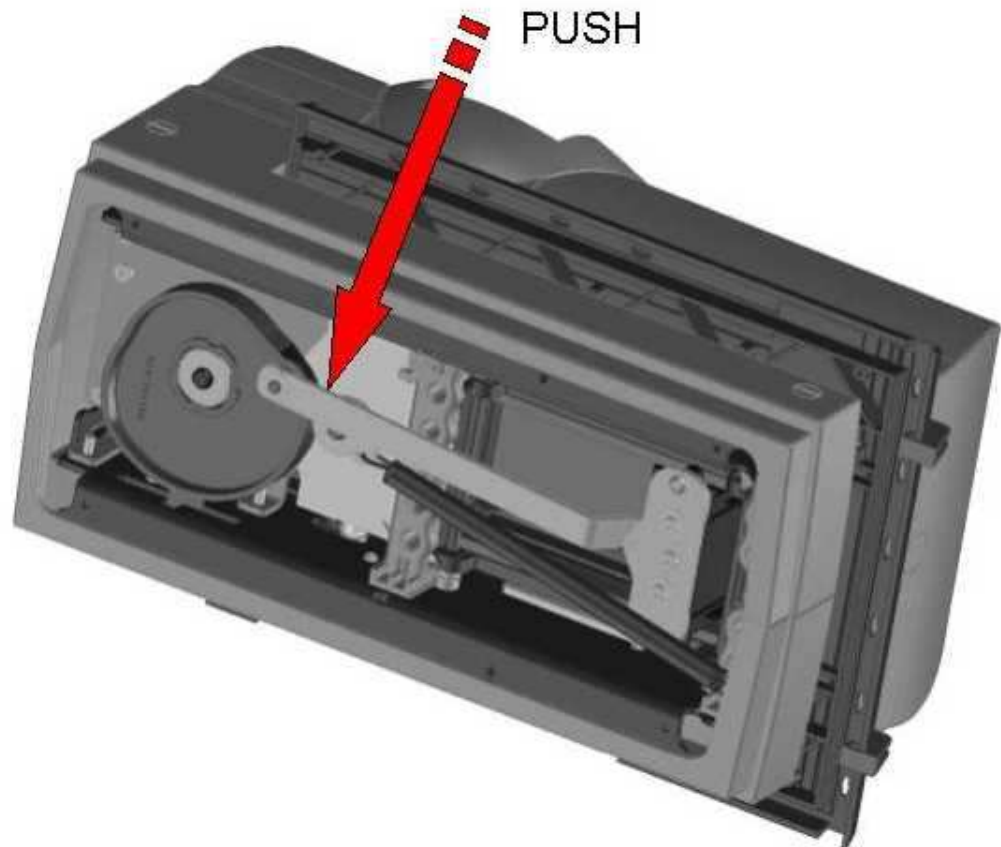
If the printing head is defective, it must be replaced. This may make readjustment of the print head distance necessary. Readjustment in the machine is carried out as follows:

1. Remove the base plate
(
see Section 6.4)

2. Tripping print unit

By manually tripping the print unit, the spacing (A) is set between the needle head and the pressure pad.

Fig. 13: Justage-Nadeldruckkopf_Bild2



Source: SD-880000-000



Elements with highly pre-loaded springs – danger of injury!

Warning

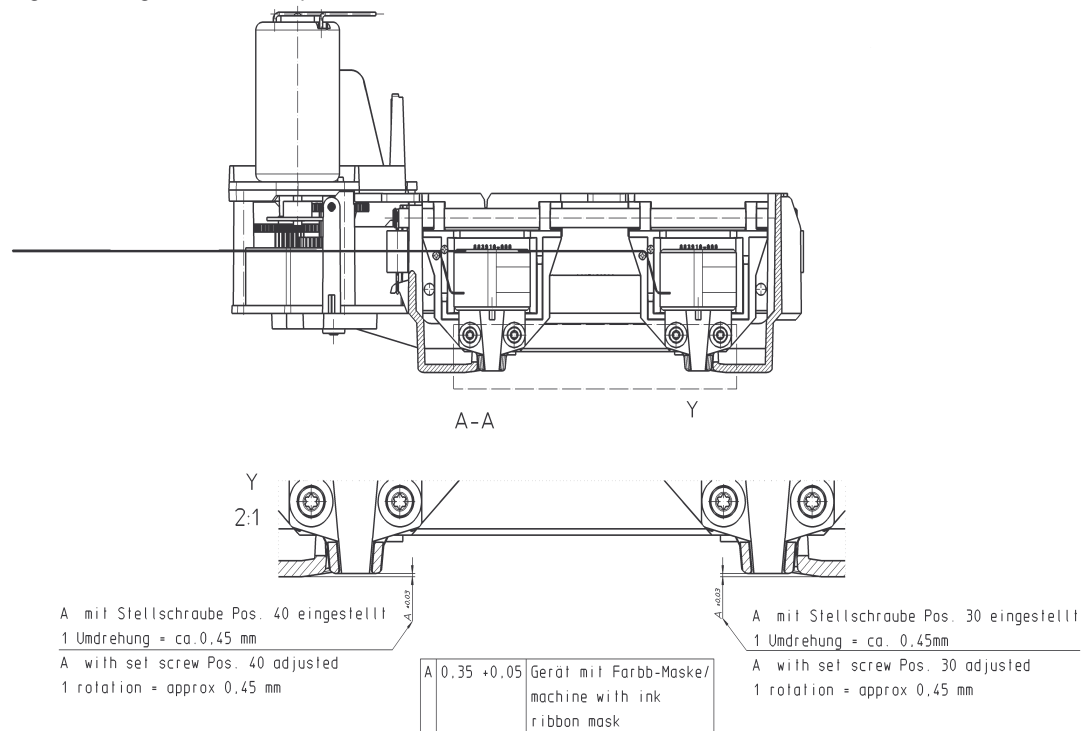
3. Checking spacing of needle head to pressure pad

Measure the setting of the needle head in relation to the pressure pad using feeler gauges. The setting should be 0.35 to 0.4mm.
If feeler gauges are not available, 4 thicknesses of copier paper can be used.

Push the paper stack between the print head and the pressure pad. Make sure that there is light contact with both surfaces.

Carry out the check with the print head in both left and right positions.

Fig. 14: Justage-Nadeldruckkopf_Bild1



Source: ZN_883010_000_D_1_13.06.2005



Ink ribbon mask: see [Section 6.11 887220-010](#)

Note

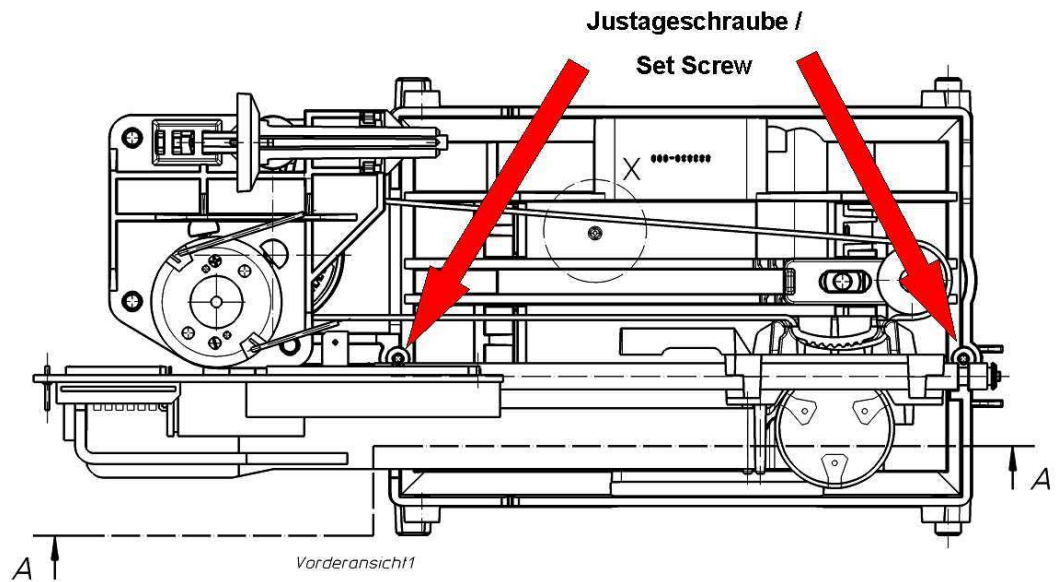
If the machine is operated without an ink-ribbon mask, spacing (A) must be set larger accordingly.

4. Adjustment

Adjusting screws: Pos. 40 and Pos. 30

Tools required: TORX screwdriver T8 (long version)

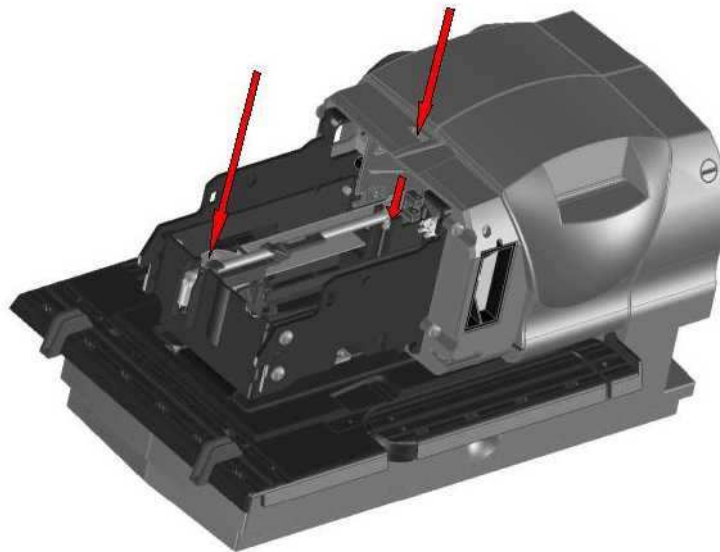
Fig. 15: Justage-Nadeldruckkopf_Bild3



Source: ZN_883010_000_D_1_13.06.2005

Adjustment of the needle printer head with housing:

Fig. 16: Justage-Nadeldruckkopf_Bild4



Source: SD-880000-000

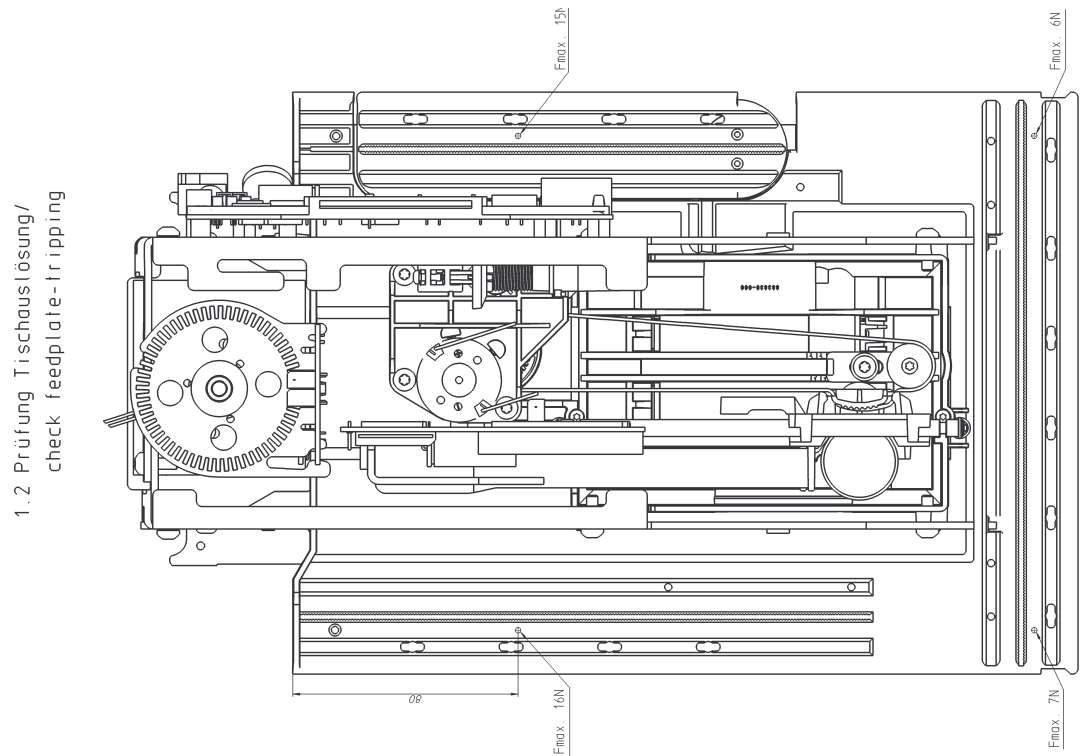
7.2.5 Adjustment of table tripping

If the table does not initiate printing from all positions, readjustment of table tripping may be necessary.

To carry out readjustment of table tripping, the housing must be dismantled (see Section 6.4)

1. Checking table tripping

Fig. 17: Justage-Tischauslösung_Bild1



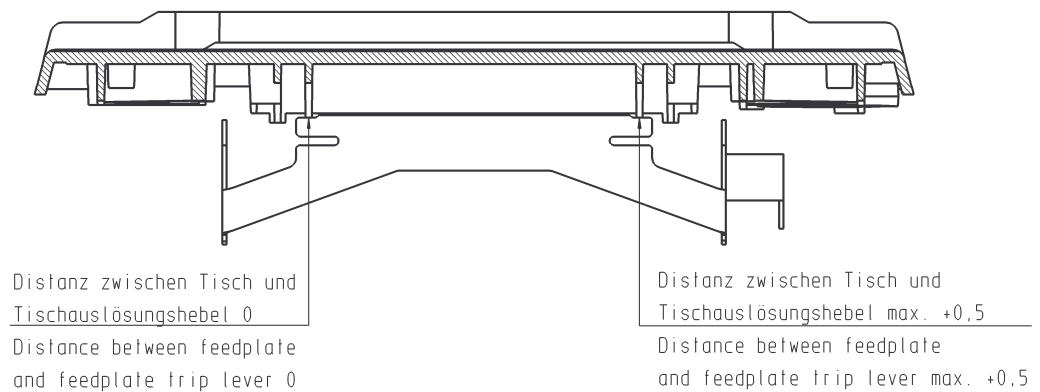
Source: ZN_882000_000_B_2_14.06.2005

2. Table tripping, adjustment 1

Then the setting of the tripping lever to the table must be checked and readjusted if necessary. Adjustment is carried out with the aid of a screwdriver; the screwdriver is introduced into the slot provided and turned slightly to deform the tripping lever to achieve the correct setting.

Fig. 18: Justage-Tischauslösung_Bild2

1.0 Justage Tischauslösung/ adjustment feedplate



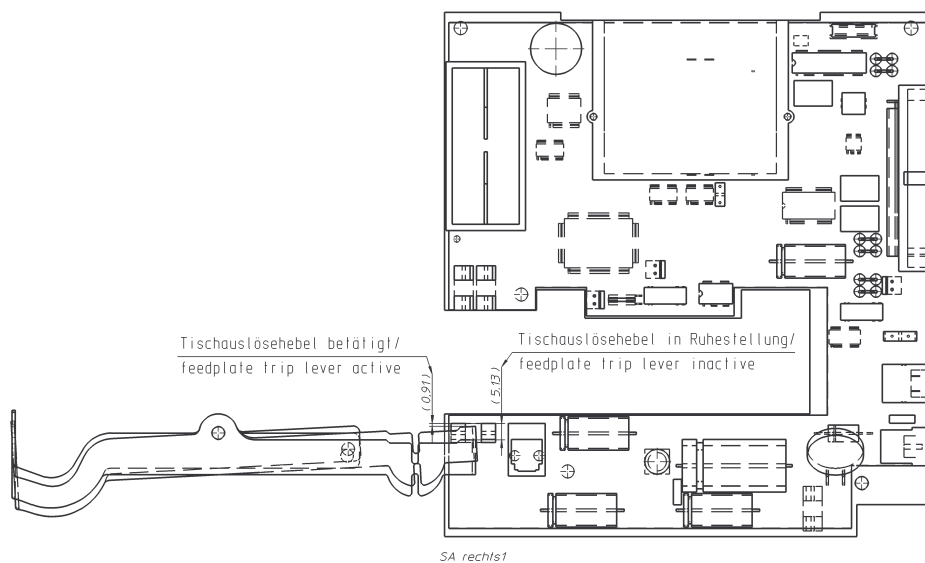
Source: ZN_882000_000_B_2_14.06.2005

3. Table tripping, adjustment 2

The third operation is to check the tripping flag and readjust if necessary

Fig. 19: Justage-Tischauslösung_Bild3

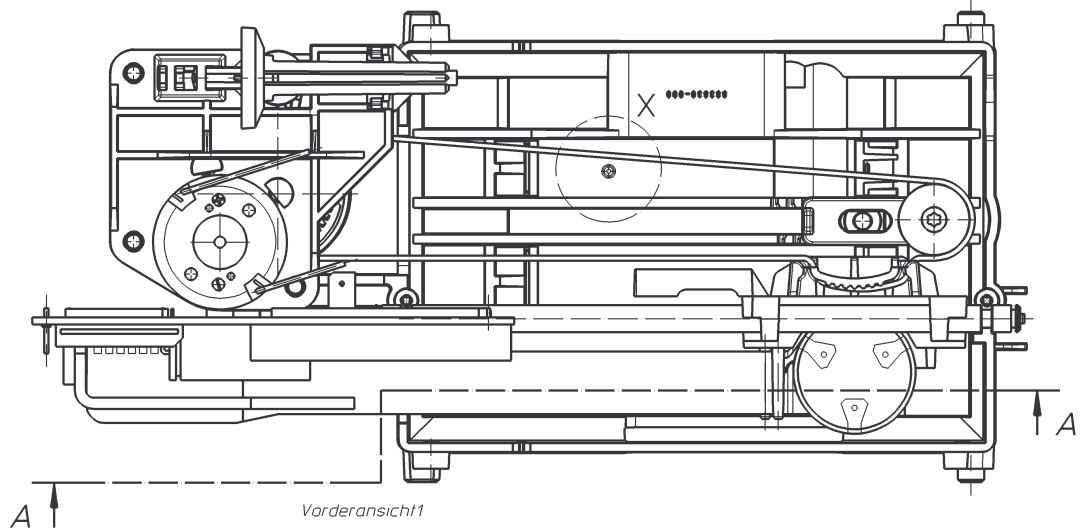
1.1 Justage Tischauslösung/ adjustment feedplate-tripping



Source: ZN_882000_000_B_2_14.06.2005

7.2.6 Adjusting timing-belt tension (DKA)

Fig. 20: Justage-Zahnriemen_Bild1



Source: ZN_883010_000_D_1_13.06.2005

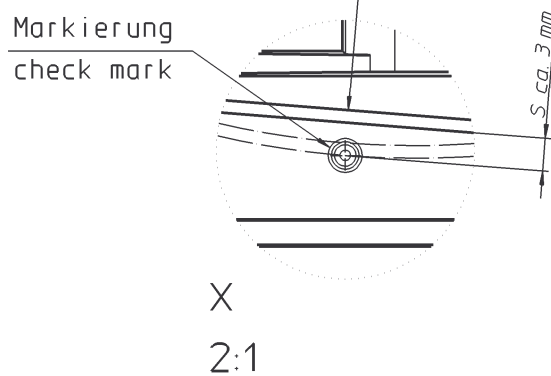
Fig. 21: Justage-Zahnriemen_Bild2

Riemenspannung mit Messuhr geprüft

$F = 1,7 \pm 0,5N$ bei $S = 3mm$

belt tension checked with a dial gage

$F = 1,7 \pm 0,5N$ bei $S = 3mm$



Source: ZN_883010_000_D_1_13.06.2005

7.3 Dismantling and replacement instructions

This section supplements Section 6, Construction.



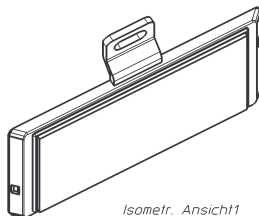
Warning

For safety reasons, the power supply must always be disconnected when working on parts inside the housing!



7.3.1 Replacing the printing plate

Fig. 22: Ersatzteil_883800_000



Isometr. Ansicht1

Source: ZN_883800_000_B

For details of how to change the printing plate, please see the operating instructions.

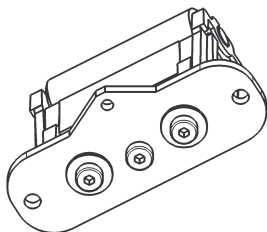


Note

If there is a big difference between the graphics on the old and new printing plates, adjustment of the print roller may be necessary. (see [Section 7.2 Adjustment instructions / Section 5 Options and Accessories](#))

7.3.2 Replacing the print roller

Fig. 23: Ersatzteil_882550-000_-001



Source: ZN_883800_000_B

Illustrations for changing the print roller are given in:
[Section 6.4 880100-000](#)
and
[Section 6.5 882000-000](#)

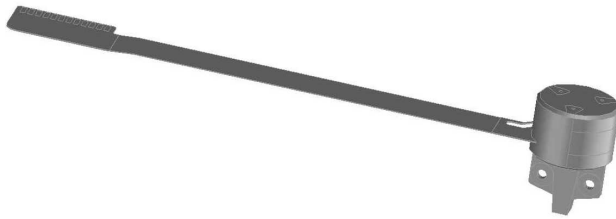


Note

After changing the print roller, it may need adjusting (see [Section 7.2 Adjustment instructions](#)).

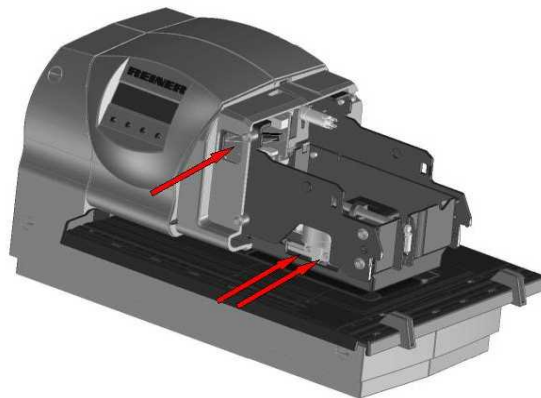
7.3.3 Replacing the needle printer head

Fig. 24: Ersatzteil_780102-102



Source: SD-880000-000

- 1. Remove cover, ink-ribbon cassette, and insulation**
(Section 6.4, 880100-000)
- 2. Disconnect the printer head cable and undo the retaining screws**
Fig. 25: Replacing needle head



Source: SD-880000-000

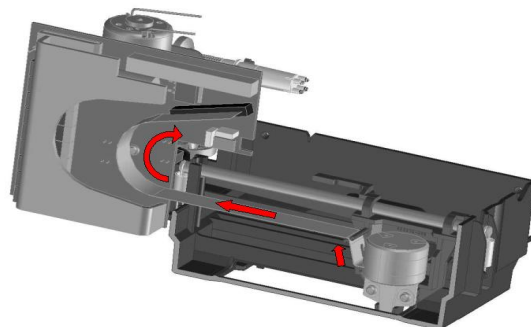
- 3. Replace the needle head**



When re-assembling, ensure that the printer head cable follows the correct path.

Note

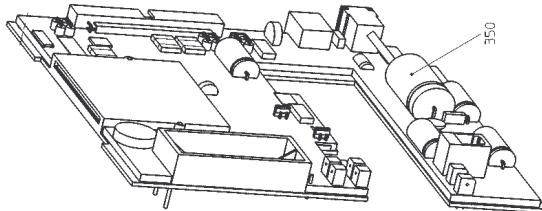
Fig. 26: Print cable run



Source: SD-PKG-888950-000

7.3.4 Replacing control board 880 cpte.

Fig. 27: Ersatzteil_886100-000



Source: ZN_882000_000_B_2

1. Remove the housing

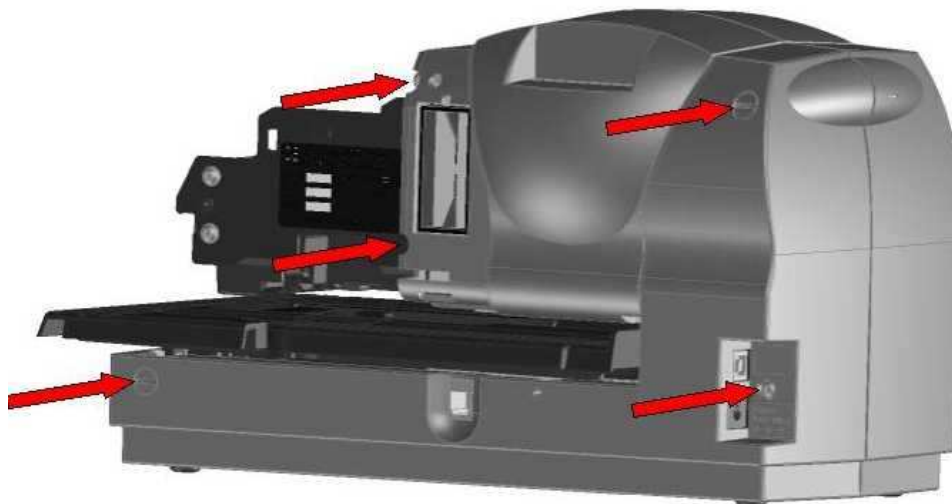
Remove the screw-head covers (3x).

(The covers can be turned to remove them, like a screw)

Remove the screws for rear part of housing (5x).

(Section 6.4, 880100-000)

Fig. 28: Austausch-Steuerkarte-Bild01

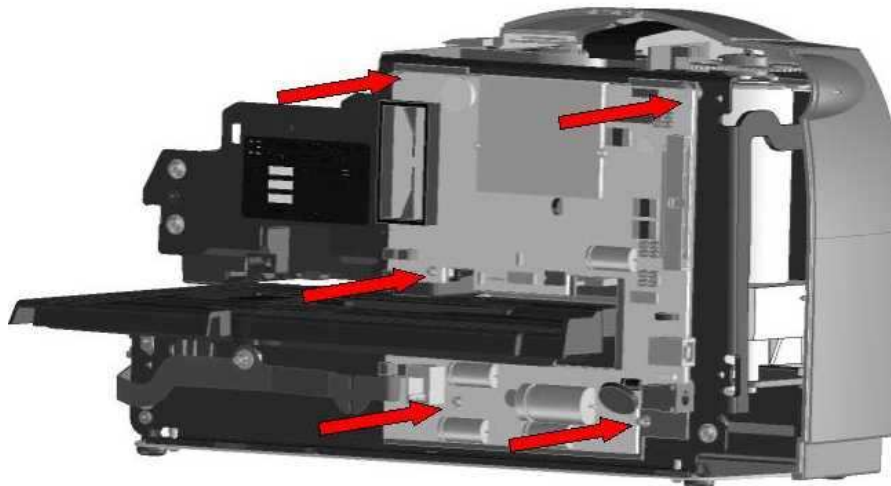


Source: SD-880000-000

2. Disconnect the cable

3. Undo control board fasteners

Fig. 29: Austausch-Steuerkarte-Bild02

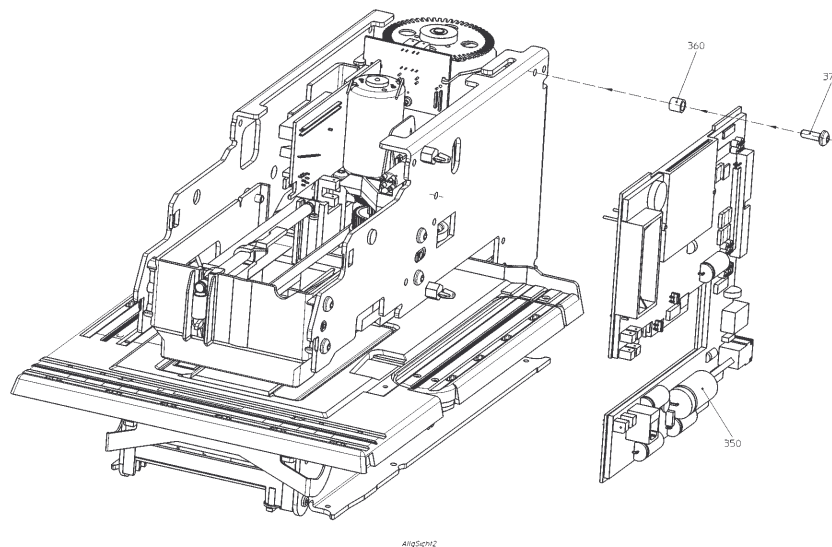


Source: SD-880000-000

4. Remove and replace control board

Section 6.5 882000-000

Fig. 30: Austausch-Steuerkarte-Bild02



Source: ZN_882000_000_B_2

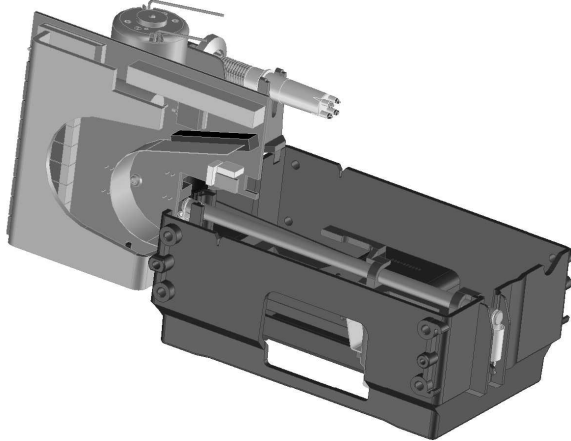


Warning

When removing the control board, there is a risk of deforming the table tripping mechanism.
If necessary, you must readjust it after changing the board.

7.3.5 Replacing the upper part

Fig. 31: Ersatzteil_883010-000_OBERTEIL KPL.

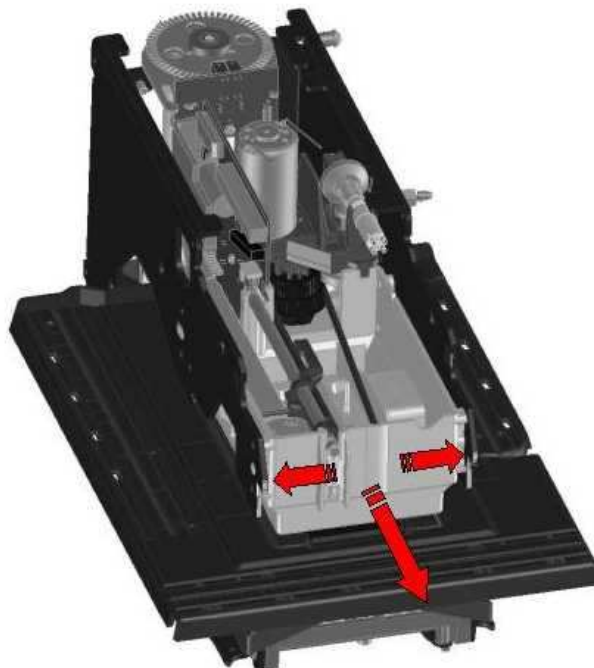


Source: SD-PKG-888950-000

See points 1 to 4 of [Section 7.3.4 Replacing control board 880 cpte.](#)

5. **Removing housing (front part)**
([Section 6.4 880100-000](#))
6. **Undo retaining screws for upper part**
8 screws
[Section 6.5 882000-000](#)
7. **Press side plates slightly apart and withdraw upper part**

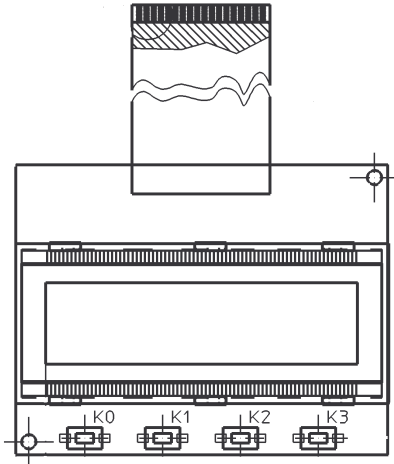
Fig. 32: Austausch-Oberteil-Bild02



Source: SD-PKG-888950-000

7.3.8 Replacing the LC-display

Fig. 34: Ersatzteil_790122-000_LC-Display

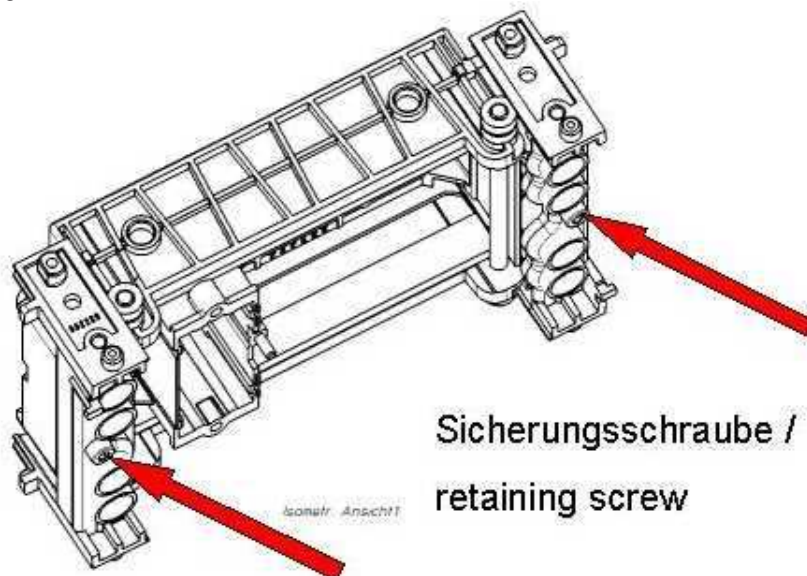


Source: ZN_790122-000_B_1

- 1. Remove the housing**
[Section 6.4 880100-000](#)
- 2. Replace the display**
[Section 6.10 887250-000](#)

7.3.9 Replacing the print unit

Fig. 35: Ersatzteil_882410_000



Source: ZN_882410_000_B

**Warning**

The print unit can only be replaced as a complete sub-assembly.

The safety screws are to be fitted at assembly and removed again when the side plates have been installed.

(165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED
Section 6.5 882000-000 Position numbers 400 and 410

Illustrations for changing the print unit are given in:

Section 6.4 880100-000

and

Section 6.5 882000-000

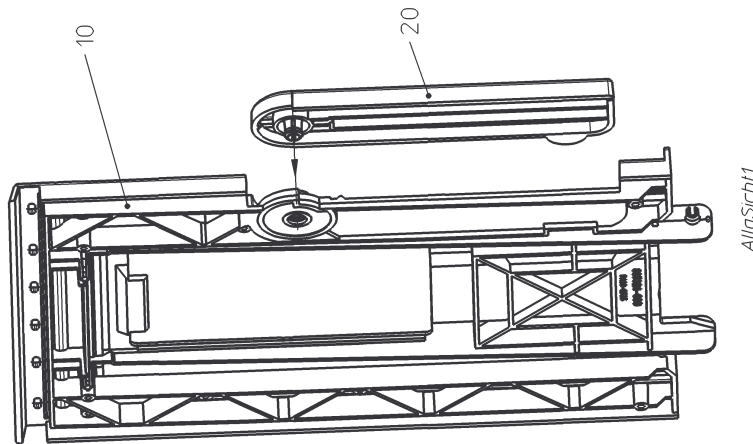
**Note**

After replacing the print unit, the following adjustments must be checked:

- Document gap
- Table tripping
- Print rollers

7.3.10 Replacing the table

Fig. 36: Ersatzteil_887320-000_Tisch_kpl



Source: ZN_887320_000_A_1

Illustrations for changing the table (Pos. 10) are given in:
[Section 6.4 880100-000](#)
and
[Section 6.5 882000-000](#)



Warning

When replacing the table, the safety screws for the print unit must be fitted.
See [Section 7.3.9 Replacing the print unit](#).

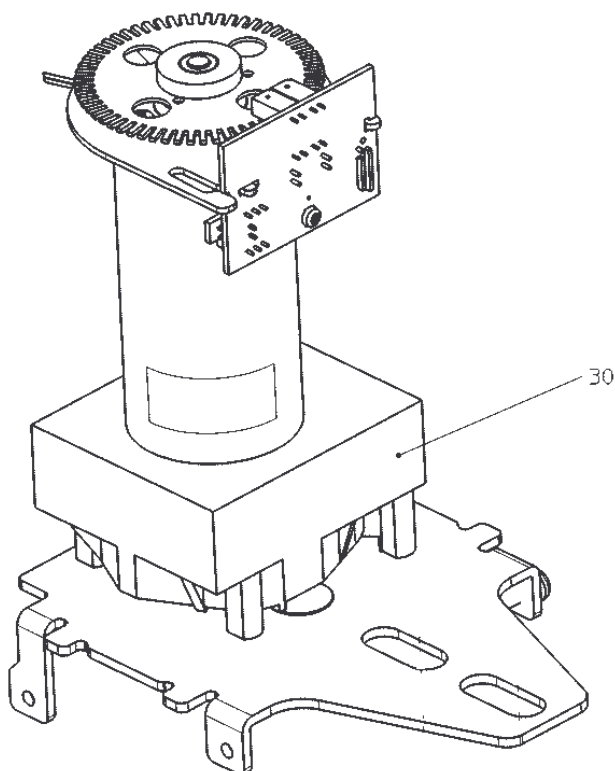
The safety screws are to be fitted when dismantling and removed again when the side plates have been installed
(165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED
[Section 6.5 882000-000 Position numbers 400 and 410](#)

7.3.11 Replacing the pivoted arm

The pivoted arm (Pos 20) is retained by a snap element and can be levered out and pressed in again when it is swung out.

7.3.12 Replacing the drive cpte., timer

Fig. 37: Ersatzteil_882300-210



Source: ZN_882000_000_B_1

**Warning**

When replacing the drive cpte., timer, the safety screws for the print unit must be fitted. see Section 7.3.9 Replacing the print unit.

The safety screws are to be fitted when dismantling and removed again when the side plates have been installed
(165120-000 SKT. HD CAP SCREW M4 x35 DIN 912 BLUED
Section 6.5 882000-000 Position numbers 400 and 410

Illustrations for changing the drive cpte., timer are given in:

[Section 6.4 880100-000](#)

and

[Section 6.5 882000-000](#)

**Note**

After replacing the drive cpte., timer, the following adjustments must be checked:

- Document gap
- Table tripping
- Print rollers

7.4 Function testing

On completion of servicing work, a functional test must be carried out before the machine is returned to the customer.

Functional testing must be carried out by trained, specialist personnel!

The procedure for a functional test is specified in the Test Report in [Section 12 Appendix](#).

8 Care and Maintenance

REINER Model 880 Electric Stamps are designed so that in normal operation a minimum of maintenance is required.

No preventive maintenance is required.

8.1 Care of the machine

For cleaning the housing, we recommend use of a mild cleaning agent, methylated spirit ([Order No. 8070400-040](#)) or plastic cleaner ([Order No. 350994-001](#)). The cleaning agents mentioned are available from specialist dealers, or can be purchased from REINER.

**Warning**

Never use aggressive cleaning agents or solvents.

Do not use paper handkerchiefs.

Do not use cleaning agents or oil inside the housing.

9 Troubleshooting

Faults can be classified into those which are **accompanied by** an error message and those **without** an error message.

9.1 Faults with an error message⁵

9.1.1 Messages

| Display | Cause | Remedy |
|------------------------------------|---|---|
| Empty batteries Please exchange | Battery voltage too low | Press OK button, (message appears only once a day) |
| Battery box is empty | Battery compartment is empty | |
| Please wait | Reference run Mo-DKA, when cover has been replaced | Wait ca. 1s until reference run Mo-DKA has finished |
| Insert Chipcard | No chipcard in chipcard reader | Insert chipcard into reader slot |
| Chipcard Line 2 ignored | The chipcard has a second line. This cannot be processed by the 880. | Press OK button. Line 1 will be shown in display, ma- chine is ready to stamp. |
| After Test (49), Reset Mo- DKA | Ending of sensor test on 880: (results from either pressing the «Back» button or from closing the sensor test on the PC = 880 PC Setup Module) | Press OK button. A reference run Mo-DKA will be carried out |

9.1.2 Warnings

| Display | Cause | Remedy |
|------------------------------|--|--|
| Warning 01 | FLASH has been overwritten with de- fault settings. | Press OK button |
| Warning 02 | Impression number set is invalid. | Press Menu button Enter valid impression number in menu |
| Warning 04 | Flash memory write operation not suc- cessful (EEPROM error) | Press OK button. |
| Warning 05 Wrong typeface | Wrong typeface configured. | Press OK button. Error message disappears and previ- ous display reappears. |

⁵ Source: PC 889035-000- B

| Display | Cause | Remedy |
|---------------------------------------|--|---|
| Warning 06 Wrong character spacing | Too large a character spacing has been configured. | Press OK button. Error message disappears and previous display reappears. |
| Warning 07 Wrong start pos. | Too large a text-block spacing or wrong stamping start position has been configured. | Press OK button. Error message disappears and previous display reappears. |
| Warning 08 Impression too wide | Impression exceeds max. print width of 60mm. | Press OK button. Error message disappears and previous display reappears. |
| Warning 10 Print operation | No print-module cycle present at photocell L-DKT due to: - blockade of print module - photocell L-DKP defective - motor Mo-DKA defective - Ink ribbon defective or does not run freely | Press OK button. Error message disappears. A reference run Mo-DKA will be attempted. |
| Warning 11 Step >=10 | Numberer 1: Step is ten or more whereas numberer impression is single digit. | Press OK button. Then reset step to less than 10 in menu. |
| Warning 12 Step >=10 | Numberer 2: Step is ten or more whereas numberer impression is single digit. | Press OK button. Then reset step to less than 10 in menu. |
| Warning 15 Change chip-card | Reiner identification not present on chipcard. | Insert chipcard correctly or use a valid chipcard. |
| Warning 16 No REINER PIN | Reiner PIN number not present on chipcard. | Remove chipcard and insert a Reiner chipcard in reader slot. |
| Warning 17 Key error | Key number on chipcard does not agree with setting. | Remove chipcard and change its key number, or change machine setting, and re-insert chipcard in reader slot |
| Warning 18 Data not OK | Chipcard data exceed maximum print zone | Remove chipcard and change impression design |
| Warning 21 | Chipcard has impression number | Write impression number 0 on chip- |

| Display | Cause | Remedy |
|---------------------------------|--|---|
| Prog.no. > 0 not OK | greater than 0 | card. |
| Warning 24 Chipcard is empty | Chipcard is empty and impression no. is 0 (when impression no. is 0, this card is accepted as key) | Remove chipcard and change impression design. |
| Warning 31 Replace cover | Cover has been removed. | Replace cover |

9.1.3 Machine faults

| Display | Cause | Remedy |
|------------------|--|---|
| Device error 59 | 32kHz quartz has NOT started | Replace control board (Section 7.3.4 Replacing control board 880 cpte.) |
| Device error 73 | Print operation Mo- DKA: photocell L-DKP not reached | - Check cycle station Mo-DKA, if defective replace upper part (Section 7.3.5 Replacing the upper part) - Check photocell L-DKP, if defective replace needle driver (Section 7.3.6 Replacing the needle driver 880) |
| Device error 77 | Print operation Mo- DKA: Mo- DKA has not reached initial position | -Check Mo-DKA cycle station -Check crank -Check L-DKP on needle driver If a defect is found, replace the relevant component or sub-assembly. |
| Device error 59 | 32kHz quartz has NOT started | Replace control board (Section 7.3.4 Replacing control board 880 cpte.) |
| Device error 118 | Mo-DWA position P3 not reached | Check cycle station Mo-DWA Check photocell L-DWP |
| Device error 119 | Mo-DKA position L-DKP not reached | Check photocell L-DKP |

| Display | Cause | Remedy |
|------------------|---|--|
| Device error 120 | Mo-DWA position P10 not reached | Check cycle station Mo-DWA |
| Device error 121 | Stamping not finished correctly (Mo-DWA) | Check cycle station Mo-DWA |
| Device error 122 | L-DWP defective | Replace control board |
| Device error 123 | L-DW1 defective | Replace drive cpte., timer (Section 7.3.12 Replacing the drive cpte., timer) |
| Device error 124 | L-DW2 defective | |
| Device error 124 | Cycle disc is loose on motor shaft | Replace drive cpte., timer |
| | | Secure cycle disc with superglue |
| Device error 125 | Reference run Mo-DKA L-DKP not reached | Check cycle station Mo-DWA Check photocell L-DWP |
| Device error 126 | Reference run Mo-DKA Mo-DKA not reached | Check cycle station Mo-DWA |

9.2 Faults without an error message

9.2.1 No display during commissioning

If the machine does not show a display, please carry out the steps described below.
Do not carry out a RESET!

1. Remove the batteries and then replace them. Check that they are correctly poled!
2. Disconnect the mains plug.
3. Leave the machine for at least five seconds without a power supply.
4. Reconnect the mains cable.

If there is still no display, repeat steps 2 and 3.

If this is still not successful, replace the display and carry out a firmware update (check current firmware release with REINER).

9.2.2 Ink-ribbon mask is loose:

The ink-ribbon mask can be secured with commercially-available fabric tape, as indicated in the drawing, or the complete cover must be replaced.
(see [Section 6.11 887220-010](#)).

9.2.3 No table tripping

1. Check the active settings for tripping
(see [880 Operating Instructions](#)).
2. If the table does not initiate printing from all positions, readjustment of table tripping may be necessary.
(See [Section 7.2.5 Adjustment of table tripping](#)).

10 Further Documentation

| | | |
|-------------------------------------|-----------|-------------|
| Operating Instructions 880, German | Order No. | 888 900-000 |
| Operating Instructions 880, English | Order No. | 888 900-001 |
| Operating Instructions 880, French | Order No. | 888 900-002 |
| Operating Instructions 880, Spanish | Order No. | 888 900-003 |
| Operating Instructions 880, Italian | Order No. | 888 900-004 |
| | | |
| Brief Instructions 880, German | Order No. | 888 910-000 |
| Brief Instructions 880, English | Order No. | 888 910-001 |
| Brief Instructions 880, French | Order No. | 888 910-002 |
| Brief Instructions 880, Spanish | Order No. | 888 910-003 |
| Brief Instructions 880, Italian | Order No. | 888 910-004 |
| | | |
| 880 PC Setup Module (D / GB) | Order No. | 889 920-000 |
| | | |
| 880 PC Update (D / GB) | Order No. | 889 910-000 |

11 Spare Parts Lists

The spare parts lists for the 880 are to be found, in so far as they are needed, in [Section 6 Construction](#) together with the description of the relevant sub-assembly.

12 Appendix



TELEFAX REPLY
+49 - 7723 / 657-200

ERNST REINER GMBH & CO.KG
Frau Martina Eschle

P. O. Box 1351

D-78115 Furtwangen

For the Electric Stamp(s) Model(s):

880

880-050

880-__

Serial No.:

we require the following spare parts:

Customer no.:

| Quantity | Part number | Part name |
|----------|-------------|-----------|
| | - | |
| | - | |
| | - | |
| | - | |
| | - | |
| | - | |
| | - | |
| | - | |
| | - | |

Space for further information

.....
.....
.....

Company

Telephone

Name

Fax

Department/Recipient of goods

Street/P.O. Box No.

Post code / Town or city

.....



Spare Parts Service

Service Report

Report No.:

ERNST REINER GMBH & CO.KG
Quality Assurance Department

P. O. Box 1351

D-78115 Furtwangen

We have serviced and repaired the
Electric Stamp Model:

880

Serial No.:

Date

Customer no.: 3

Machine statistics

| | | | | | | | | | | | | | |
|-------|--------------------------------|---|---|---|---|-------|--------------------------------------|--|--|--|--|--|--|
| Stat1 | Firmware | S | . | - | F | Stat4 | Character counter, 8-digit | | | | | | |
| Stat2 | Stats.-cleared date (DD/MM/YY) | | | | | Stat5 | Fault counter w/o DM cycles, 4-digit | | | | | | |
| Stat3 | Impression counter, 6-digit | | | | | Stat6 | Fault counter DM position, 4-digit | | | | | | |

Work carried out

Reason for error, cause of fault (must always be stated)

| | | |
|---|----------------------|-------|
| A | Repaired at customer | _____ |
| B | Repaired in workshop | _____ |
| C | Guarantee repair | _____ |
| D | Machine exchanged | _____ |
| E | Modification | _____ |
| F | Other | _____ |

Sub-assemblies and parts replaced

| Part number | Part name |
|-------------|-----------|
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |
| - | |

Company

Telephone

.....
Name

.....
Fax

.....
Street/P.O. Box No.

.....
Post code / Town or city

.....

880 Functional Test

Report

| | | | |
|---------------|-----------------|--------|--|
| Type of test: | Functional test | Date: | |
| Test object | | Tester | |

| Test of operation | | | Passed | Not carried out | Failed |
|-------------------|------|---------|--------|-----------------|--------|
| No. | Test | Comment | | | |

| | | | | | |
|----------|--|---|--------------------------|--------------------------|--------------------------|
| 1 | Test - without ink ribbon, cover, base plate, housing-rear part | | | | |
| 1.1 | Print-head cable path | <i>Cable must be guided in the print carriage!</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.2 | Distance: print head to pressure pad | <i>according to drawing (assembly dimension)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.3 | Printing plate change | <i>Check for ease of movement</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.4 | Ink-ribbon mounting | <i>Engages in side plates (ease of movement)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1.5 | Ink-ribbon transport | <i>Engagement of drive dog (turn transport wheel)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | |
|----------|---|---|--------------------------|--------------------------|--------------------------|
| 2 | Test: - without ink ribbon, cover, base plate, housing-rear part - connect machine to mains - darken L-GH1 and L-GH2. - (when first commissioning, firmware must be loaded) - with print medium (paper) | | | | |
| 2.1 | Table tripping | <i>Tripping at 4 table positions as in DRG. NO. 882000-000 (use print medium)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.2 | Depth-stop contact | <i>Insert to depth stop and trip</i> | | | |
| 2.4 | Display message | <i>Display, contrast (adjust if necessary)</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2.5 | Check buttons | <i>Operate all 4 buttons</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | |
|----------|--|---|--------------------------|--------------------------|--------------------------|
| 3 | Test: - without base plate, (with ink ribbon) - - connect machine to mains - - with print medium (paper) | | | | |
| 3.1 | Print-roller setting/ 1 document | <i>Clean impression, no smears</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.2 | Print-roller setting / 2.5 mm document stack | <i>Clean impression, no smears</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.3 | Copy printing, 4 copies (carbon paper) | <i>Impression legible on fourth copy</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3.4 | Noise when printing | <i>Hammering noise in printer drive (DWA) Cause: - print roller set too high - play too large between DWA and crank</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | |
|----------|--|---|--------------------------|--------------------------|--------------------------|
| 4 | Test: - (with ink ribbon) - - connect machine to mains - with print medium (paper) | | | | |
| 4.1 | Chipcard | <i>Print impression from the chipcard</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.2 | Printing test: 10x with table tripping | <i>- Push in print medium from all three sides - Trip at all 4 corners of the table</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.3 | Continuous operation, 100x | <i>Menu: Test functions</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4.4 | Housing switch | <i>If the cover is shaken, a warning should not appear on the display.</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | | | | | |
|----------|---|--|--------------------------|--------------------------|--------------------------|
| 5 | Test: - without ink ribbon - with transport protection | | | | |
| 5.1 | Housing free of damage, defects and dirt | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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