

BS 2/C-..., BS 2/R-...

Belt section

Valid for the following types:

3842 998 933, BS 2/C-100

3842 998 934, BS 2/C-250

3842 998 935, BS 2/C-H

3842 998 937, BS 2/R-300

3842 998 938, BS 2/R-700

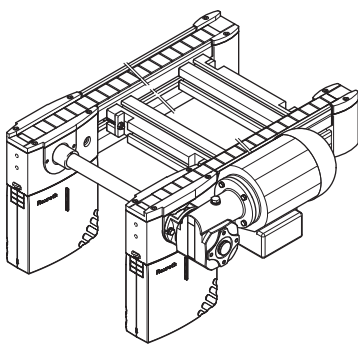
3842 998 939, BS 2/R-H

3842 998 941, BS 2/R-V+ 1200

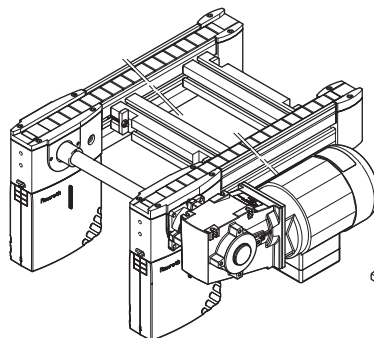
Assembly instructions
3 842 563 834/2022-08

Replaces: –
ENGLISH

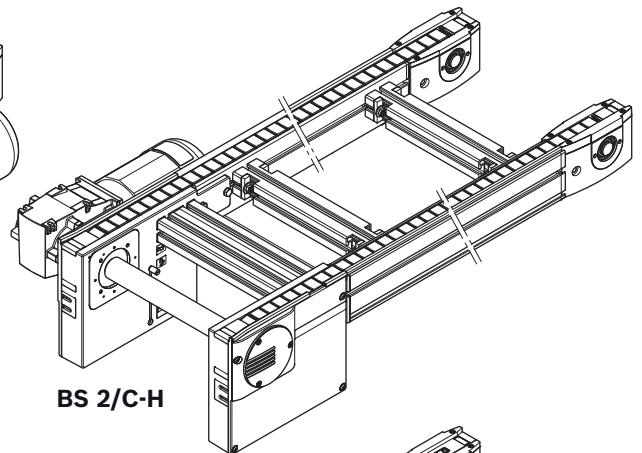
ENGLISH



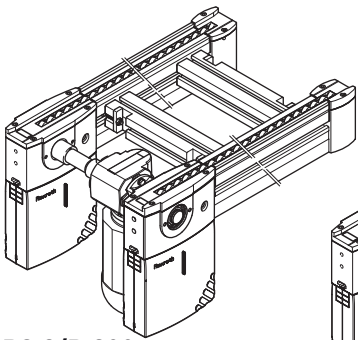
BS 2/C-100



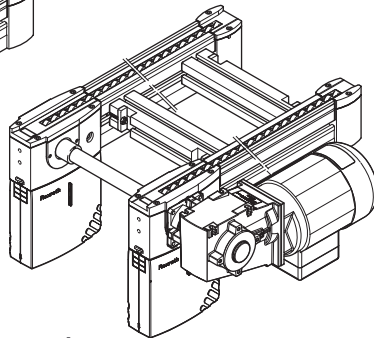
BS 2/C-250



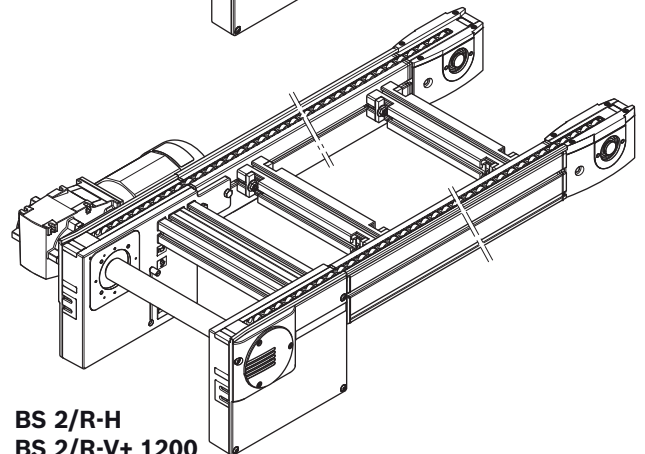
BS 2/C-H



BS 2/R-300



BS 2/R-700



BS 2/R-H
BS 2/R-V+ 1200

The information in this manual is for product description purposes only. Any information in this manual on how to use the product only constitute examples and recommendations. Catalog information is not binding. The information given does not exempt the user from the obligation of own judgment and verification. Our products are subject to natural wear and aging.

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An example configuration is shown on the title page. The delivered product may thus vary from the illustration.

The original assembly instructions are in German.

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They come in a hard copy or a PDF file that can be downloaded from the media directory:
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DE	3 842 563 833	BS 2/C-..., BS 2/R-... Bandstrecke	Deutsch
EN	3 842 563 834	BS 2/C-..., BS 2/R-... Belt sections	English
FR	3 842 563 835	BS 2/C-..., BS 2/R-... Section à bande	Français
IT	3 842 563 836	BS 2/C-..., BS 2/R-... Tratto a nastro	Italiano
ES	3 842 563 837	BS 2/C-..., BS 2/R-... Tramo de cinta	Español
PT	3 842 563 838	BS 2/C-..., BS 2/R-... Via de esteira	Português
ZH	3 842 563 839	BS 2/C-..., BS 2/R-... 皮带输送段	中文
CS	MTCS 563 833	1) BS 2/C-..., BS 2/R-... Dopravníková trať	Česky
PL	MTPL 563 833	1) BS 2/C-..., BS 2/R-... Przenośnik	Polski
HU	MTHU 563 833	1) BS 2/C-..., BS 2/R-... Szalagszakasz	Magyar
RO	MTRO 563 833	1) BS 2/C-..., BS 2/R-... Tronson de bandă	Română
		1) Only as PDF / Not available in print.	

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1 About this documentation

1.1 Validity of the documentation

This documentation applies to the following products:

- 3 842 998 933, BS 2/C-100
- 3 842 998 934, BS 2/C-250
- 3 842 998 935, BS 2/C-H
- 3 842 998 937, BS 2/R-300
- 3 842 998 938, BS 2/R-700
- 3 842 998 939, BS 2/R-H
- 3 842 998 941, BS 2/R-V+ 1200

This documentation is intended for fitters, operators, service engineers and system owners.

This documentation contains important information relating to the safe and proper assembly, transportation, commissioning, operation, use, maintenance and disassembly of the product, and on how to rectify simple faults yourself.

- Read this documentation completely and in particular section 2 "Safety instructions" and section 3 "General notes on property and product damage", before working with the belt section.

1.2 Required and supplementary documentation

- Only commission the product if the documentation marked with the book symbol  is available and you have understood and followed the instructions in it.

Table 1: Required and supplementary documentation

Title	Document number	Document type
 Employee safety training	3 842 527 147	
 Declaration of incorporation	3 842 358 415	
MTpro ¹⁾	3 842 539 057	With spare parts list

¹⁾ Download at: www.boschrexroth.com/mtpro

²⁾ All documents are also available for download from the media directory:

www.boschrexroth.com/mediadirectory

1.3 Presentation of information

Standardized safety instructions, symbols, terms and abbreviations are used so that you can use this documentation to work quickly and safely with your product. These are explained in the following sections to help you understand them better.

1.3.1 Safety instructions

This document contains safety instructions in chapter 2.6 "Product-specific safety instructions" and chapter 3 "General notes on property and product damage", as well as before any sequence of actions or any required action which involves a risk of personal injury or property damage. Be sure to observe all safety precautions.

Safety instructions are set out as follows:



SIGNAL WORD

Type and source of danger!

Consequences of non-compliance

- ▶ Measures to prevent danger
- ▶ ...

- **Warning sign:** Points out the danger
- **Signal word:** Indicates the severity of the danger
- **Type and source of danger:** Indicates the type and source of the danger
- **Consequences:** Describes the consequences of non-compliance
- **Prevention:** States how the danger can be avoided

Table 2: Risk classes according to ANSI Z535.6-2006

Warning sign, signal word	Meaning
 DANGER	Indicates a hazardous situation that will result in serious injury or death if not avoided.
 WARNING	Indicates a hazardous situation that may result in serious injury or death if not avoided.
 CAUTION	Indicates a hazardous situation that may result in minor to moderate injury if not avoided.
NOTICE	Property damage: The product or the surrounding area could get damaged.

1.3.2 Symbols

The following symbols indicate important information that is not safety-relevant but increases the comprehensibility of the documentation.

Table 3: Meaning of the symbols

Symbol	Meaning
	If this information is not observed, the product cannot be used and/or operated as designed.
▶	Single, independent action
1. 2. 3.	Numbered steps: The numbers indicate that the action steps are subsequent.

1.3.3 Designations

This document uses the following designations:

Table 4: Designations

Designation	Meaning
BS 2/C-100	BS 2/...: Belt section from the Rexroth TS <i>2plus</i> transfer system
BS 2/C-250	.../C: Conveyor medium flat top chain
BS 2/C-H	...-100, ...-250: Permissible load, sum of loads [kg]
	...-H: Heavy-duty version, permissible load, sum of loads 400 kg
BS 2/R-300	BS 2/...: Belt section from the Rexroth TS <i>2plus</i> transfer system
BS 2/R-700	.../R: Conveyor medium accumulation roller chain
BS 2/R-H	...-300, ...-700: Permissible load, sum of loads [kg]
BS 2/R-V+ 1200	...-H: Heavy-duty version, permissible load, sum of loads 1200 kg
	...-V+: Conveyor medium accumulation roller chain <i>Vplus</i> , permissible load, sum of loads 1200 kg
	...1200: permissible load, sum of loads 1200 kg

1.3.4 Abbreviations

This document uses the following abbreviations:

Table 5: Abbreviations

Abbreviation	Meaning
Chain	Conveyor chain with conveyor medium: • Flat top chain (.../C-...) • Accumulation roller chain (.../R-...) • Accumulation roller chain <i>Vplus</i> (.../R-V-...)
KT	Chain type accumulation roller chain with: • PA accumulation rollers (KT = 1) • Steel accumulation rollers (KT = 2) • PA accumulation rollers and small parts protection (KT = 3) • Steel accumulation rollers and small parts protection (KT = 4)

2 Safety instructions

2.1 About this chapter

The product has been manufactured in accordance with the generally accepted rules of current technology. Nevertheless, there is a risk of personal injury and property damage if you do not read this chapter and follow the safety instructions in this document.

- ▶ Read this documentation carefully and completely before you start working with the product.
- ▶ Keep the documentation accessible to all users at all times.
- ▶ Always include them when giving the product to a third party.

2.2 Intended use

The product is a partly completed machinery.

You may use the product as follows:

- For installation in a Rexroth TS *2plus* transfer system
- For transporting Rexroth WT 2 workpiece pallets
- Maximum load/section load: See technical data on page 83.
- For ambient conditions, see page 83.

This product is intended only for professional use and not for private use. The intended use also includes having read and understood these instructions, especially chapter 2 "Safety instructions".

2.3 Improper use

Any use other than that described in the section "Intended use" is considered improper and is not permitted.

Bosch Rexroth AG is not liable for any damage resulting from improper use.

The user alone bears any risks associated with improper use.

The following foreseeable misuses also constitute improper use:

- Transporting goods other than those specified.
- Transporting personnel on the product or the transported material.
- Personnel climbing on the product
 - The product is not accessible.
- Using the product without securing against tipping.
- Private use.

2.4 Personnel qualifications

The activities described in this document require basic knowledge of mechanical, electrical and pneumatic systems, as well as familiarity with the corresponding technical terms. Additional knowledge regarding the use of lifting gear and corresponding slings is required for transporting and handling the product.

To ensure safe use, these activities should therefore only be performed by qualified personnel or by an instructed person acting under the direction of such a person.

"Qualified personnel" refers to those who can recognize potential hazards and take appropriate safety measures based on their technical training, knowledge, experience, and understanding of the relevant regulations pertaining to the work being performed. Qualified personnel must comply with the relevant technical regulations and have the necessary expertise.

In the case of pneumatic products, for example, expertise means:

- The ability to read and fully understand pneumatic diagrams.
- Thorough understanding of the interactions between safety equipment in particular.
- Understanding the function and design of pneumatic components.



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2.5 General safety instructions

- Observe the applicable accident prevention and environmental protection regulations.
- Observe the safety rules and regulations of the country in which the product is being used.
- Only use Rexroth products that are in proper working order.
- Heed all the notices on the product.
- Persons who assemble, operate, disassemble or maintain Rexroth products should not be under the influence of alcohol, drugs or medication that may affect their ability to respond.

- Use only original accessories and spare parts from Rexroth in order to prevent hazards to people due to unsuitable spare parts.
- Observe the technical data and ambient conditions specified in the product documentation.
- If unsuitable products are installed or used in safety-relevant applications, unexpected operating conditions may occur in the application that could result in injury or property damage. Products should only be used in safety-relevant applications that are expressly specified and approved in the product documentation, such as in explosion protection areas or in safety-related parts of a controller (functional safety).
- Only start up the product if it has been determined that the end product (for example, a machine or system) into which the Rexroth products have been installed complies with national provisions, safety regulations and application standards.

2.6 Product-specific safety instructions

The following safety information applies to sections 6 to 14.

General

- Do not attempt to modify the product.
- Do not expose the product to any mechanical loads under any circumstances. Never use the product as a handhold or step. Do not place any objects on the product.

During transport During assembly

- Always secure the product against tipping over.
- Observe the transport instructions on the packaging.
- Inspect the product for obvious transport damage.
- Lay cables and lines so that they cannot be damaged and no one can trip over them.
- Make sure the system component you are working on is depressurized and de-energized before assembling the product or inserting or removing plugs.
- Ensure that the system component cannot be switched back on.
- Before commissioning, make sure that all seals and plugs for the plug connectors are correctly installed and not damaged to prevent liquids and foreign bodies from entering the product.

During commissioning

- Allow the product to acclimatize for a few hours prior to commissioning in order to prevent water condensation from forming in the housing.
- Make sure that all electrical and pneumatic connections are either in use or covered.
- Check the safety requirements according to DIN EN 619.
- Only commission a product that has been completely installed.
- Make sure that all the safety equipment which forms part of the product is present, has been properly installed, and is fully functional. Do not move, bypass or disable any safety equipment.
- Do not reach into moving parts.
- Check the product for malfunctions.

During operation

- Make sure that only authorized personnel perform the following tasks within the scope of the product's intended use:
 - Starting or operating the system or interfering with its normal operation.
 - Operating component or part adjusters.
- Only allow people to be in the immediate vicinity of the product when it is operating if they are authorized by the owner to be there. This also applies when the product is idle.
- Make sure that:
 - There are no obstacles preventing access to the EMERGENCY STOP controls.
 - All delivery points, workstations and passages are kept clear.

**EMERGENCY STOP,
malfunction**
During servicing and repair

During disposal

- Do not use EMERGENCY STOP controls for routine stopping.
- Regularly check the EMERGENCY STOP controls to ensure that they are functioning properly.
- Following an EMERGENCY STOP or in the event of a fault or other irregularity, turn the product off and secure it against being switched back on.
- Do not reach into moving parts.
- An idle system is not necessarily a safe system, as stored energy can be released unintentionally or through improper maintenance procedures.
- After an EMERGENCY STOP or a malfunction, only switch the system back on once you have established and rectified the cause of the fault.
- Make sure that access to maintenance and inspection points is kept unobstructed.
- Perform the prescribed maintenance use at the intervals specified in chapter 10.3 "Maintenance".
- Make sure that no line connectors, connections or components are disconnected as long as the system is supplied with pressure and voltage. Secure the system against being switched back on.
- Dispose of the product in accordance with the regulations in your country.

2.7 Personal protective equipment

- Appropriate protective clothing should be worn when handling/using the product (e.g. safety shoes, close-fitting clothing, a hair net for long, loose hair). As the system owner or operator, you are personally responsible for ensuring the use of appropriate protective equipment when the product is being used. All component parts of the personal protective equipment must be free of damage.

2.8 Owner responsibilities

- Before the initial commissioning or re-commissioning of a conveyor system, carry out a risk assessment in accordance with DIN EN ISO 12100.
- Before initial commissioning, make sure there are no protruding or sharp-edged parts that may be a hazard to personnel working or moving in the area.
- Provide safety-related instructions to the operating personnel before initial commissioning or re-commissioning, and then at regular intervals.

3 General notes on property and product damage

The warranty only applies to the delivered configuration.

During operation

- The warranty is void in the event of incorrect assembly, commissioning and operation, as well as improper use and/or improper handling.
- The following safety information applies to sections 6 to 14.
- Ensure that the conveyor chain is lubricated sufficiently, see page 43.
 - Keep a maintenance schedule.
 - Keep degreasers or aggressive cleaning agents away from the conveyor chain.

- During servicing and repair**
- Deformations such as bending and/or twisting of the chain, e.g., by tilting the chain reel during installation, can result in conveyor chain failure and even crashing.
 - Make sure the chain remains straight and can leave the chain reel smoothly during installation.
 - Make sure the chain reel cannot fall over during installation.
 - If the chain reel has fallen over during installation and the chain is deformed: Use the disassembly tool to remove the affected area, with a generous margin on either end.
- During cleaning**
- Prevent cleaning agents from getting into the system.
 - Never use solvents or corrosive cleaning agents.
 - Do not use a pressure washer for cleaning.

4 Scope of delivery

The scope of delivery includes the following:

- 1 belt section BS 2/...
- 1 assembly instructions for "BS 2/C-..., BS 2/R-..., belt section".

Necessary accessories such as supports, fastening set for the connection to other belt sections or the floor must be ordered separately, see sales catalog TS *2plus*.

4.1 Condition on delivery

- Mounted on pallet
- BS 2/C-100, BS 2/R-300, BS 2/R-300 - DE 2, BS 4/R-300:
Mounted on pallet, motor supplied separately.

5 About this product

5.1 Specifications

5.1.1 Using belt section BS 2/...

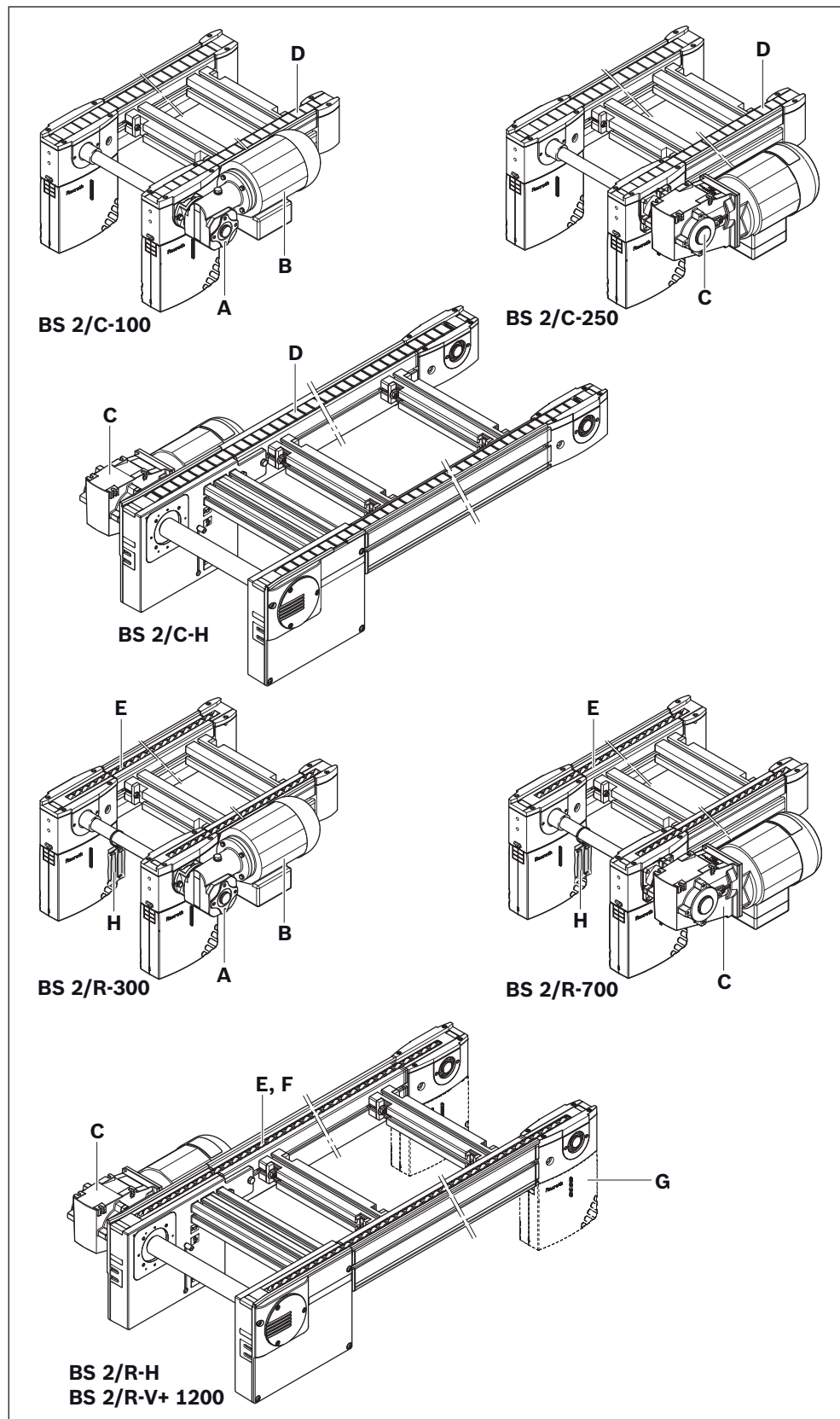
- Longitudinal conveying of the WT 2 workpiece pallet on conveyor sections of up to 6000 mm.
- Transverse conveying of the WT 2 workpiece pallet between parallel conveyor sections (in connection with two HQ 2 lift transverse units).

5.1.2 Design of belt section BS 2/...

- Ready-to-use conveyor section.
- Section load: see Technical Data on page 83.
- Conveyor medium:
 - BS 2/C-... : Plastic flat-top chain.
 - BS 2/R-... : Accumulation roller chain.
 - BS 2/R-V-... : Accumulation roller chain *Vplus*.
- Depending on the version, motor mounting on the right-hand side (MA = R), left-hand side (MA = L) or in the center (MA = M).
- Cable/plug or terminal box motor connection.

5.2 Product description

- A:** Gear
B: Motor
C: Gear motor
D: Flat top chain
E: Accumulation roller chain
F: Accumulation roller chain *Vplus*
G: Only for: BS 2/R-H, reversible
H: Acceleration element for:
 • BS 2/R-300, ...-700
 • BS 2/R-300 - DE 2
 • BS 4/R-300, ...-700
 To safely overcome the conveyor trench without accumulation operation.
 Only for $l_{WT} = 160$,
 $l_{WT} = 240$.



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Fig. 1: Belt sections BS 2/C-..., BS 2/R-...

- A:** Material number
(order number)
- B:** Designation
- C:** Information on the version
and dimensions

5.3 Identification of the product

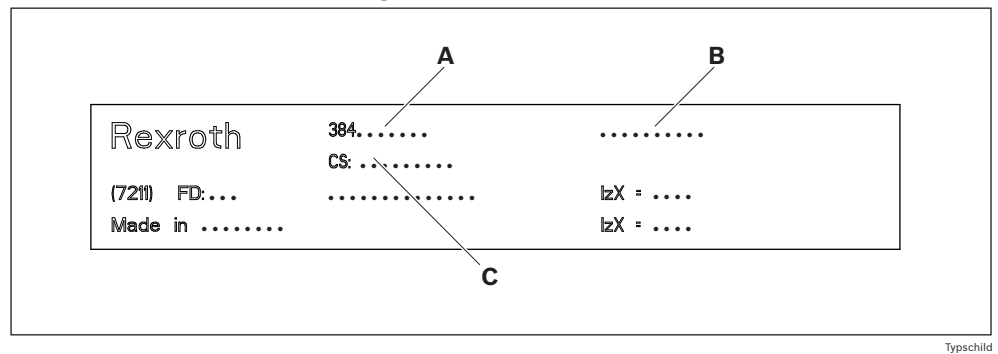


Fig. 2: Nameplate

6 Transport and storage

- Observe the transport instructions on the packaging.
- Transport weight: see delivery documents.
- Secure the product against tipping over!
- Always maintain ambient conditions during loading and transport, see page 83.

6.1 Transporting the product

WARNING

Suspended loads may fall!

- ▶ Falling objects can result in severe injury (or even death).
- ▶ Use only slings with sufficiently high bearing loads (for product weight, see delivery documents).
- ▶ Make sure the lifting gear is correctly fastened before lifting the product!
- ▶ Secure the product against tipping over when lifting!
- ▶ Make sure that no one but the operator is in the danger zone during lifting and lowering!

6.2 Storing the product

- Only set the product down on a flat, stable surface.
- Protect the product from mechanical stress.
- Protect the product from environmental influences, such as dirt and moisture.
- Observe the ambient conditions, see page 83.
- Support the product so that there is no load on motors that are installed in a suspended position.

7 Assembly

7.1 Unpacking

- ▶ Lift the product out of its packaging.
- ▶ Dispose of the packaging material in accordance with the applicable regulations in your country.

7.2 Installation requirements

- ▶ During installation, be sure to maintain the ambient conditions specified in the technical data (see page 83).

7.2.1 Installation position

- ▶ Install the product level and plumb, at right angles, and axially parallel. This ensures proper functioning and prevents premature wear.

7.3 Required tools

- ▶ Hex wrench (open-end):
SW8, SW10, SW13, SW19, SW24.
- ▶ Hex socket wrench: SW4.
- ▶ Spirit level
- ▶ Combination pliers
- ▶ Flat smooth file

7.4 Required accessories

- Leg set for holding up the belt section.
Please note: Support the belt section in the immediate vicinity of the drive and return unit. The maximum distance permitted between two leg sets is 2000 mm.
 - For BS 2/C-100, BS 2/C-250, BS 2/R-300, BS 4/R-300, BS 2/R-700, BS 4/R-700:
SZ 2, **3 842 996 320**
SZ 2/U, **3 842 996 322**
SZ 2/T, **3 842 996 324**
 - For BS 2/C-H, BS 2/R-H, BS 2/R-V:
SZ 2-H, **3 842 996 321**
SZ 2/U-H, **3 842 996 323**
SZ 2/T-H, **3 842 996 325**
 - For fastening the leg sets on the ground, you need the following for each connection:
 - 1x foundation bracket, **3 842 146 815**
 - 1x dowel, **3 842 526 560**
 - 2x T-bolt, **3 842 528 718**
 - 2x flange nut, **3 842 345 081**
- Connection kit for transverse conveying, for utilization of the belt section in lateral transverse conveying (drive head-at-section).
 - BS 2/C-100, BS 2/C-250, BS 2/R-300, BS 4/R-300, BS 2/R-700, BS 4/R-700 with:
ST 2/B, ST 2/B-100, ST 2/C-100, ST 2/R-100, **3 842 528 192**
 - BS 2/C-400, BS 2/C-700, BS 2/R-1200, BS 2/R-2200 with:
ST 2/B, ST 2/B-100, ST 2/C-100, ST 2/R-100, **3 842 518 828**
 - BS 2/C-H, BS 2/R-H, BS 2/R-V with:
ST 2/C-H, ST 2/R-H, ST 2/R-V, **3 842 528 192**
- Connection kit for longitudinal conveyor (drive head at return unit)
 - BS 2/C-100, BS 2/C-250, BS 2/R-300, BS 4/R-300, BS 2/R-700, BS 4/R-700 with:
BS 2/C-100, BS 2/C-250, BS 2/R-300, BS 4/R-300, BS 2/R-700, BS 4/R-700, **3 842 529 881**
 - BS 2/C-400, BS 2/C-700, BS 2/R-1200, BS 2/R-2200
BS 2/C-H, BS 2/R-H, BS 2/R-V with:
BS 2/C-100, BS 2/C-250, BS 2/R-300, BS 4/R-300, BS 2/R-700, BS 4/R-700
BS 2/C-400, BS 2/C-700, BS 2/R-1200, BS 2/R-2200
BS 2/C-H, BS 2/R-H, BS 2/R-V, **3 842 530 871**

7.5
Symbols used

	Connection with T-bolt and flange nut. Make sure the T-bolt is in the correct position when inserting it into the slot and tightening it. The notch at the head of the screw indicates the orientation of the T-bolt. 1 = T-bolt insertion position in the slot. 2 = T-bolt clamping position in the slot. Tightening torque: 25 Nm
 M _D = 20Nm	Hex wrench SW = wrench size ... mm M_D = required tightening torque ... Nm
 M _D = 8Nm	Hex socket wrench SW = wrench size ... mm M_D = required tightening torque ... Nm
	Screwdrivers for cross-head screws PZ ... = Pozidriv screw driver, size ... PH ... = Phillips screw driver, size ...
	Lubricate/lubricate with specific grease lubricant: - gleitmo 585 K: gleitmo 585 K, www.fuchs-lubritech.com - Anti-Seize: Food Grade Anti-Seize/Loctite 8014, www.henkel.com
	Lubricate/lubricate with specific mineral oil: - GHD: Structovis GHD, www.klueber.com - V 68: Mineral oil with a viscosity of 68
	Secure the screws with: - Loctite 243: Medium strength (detachable), www.loctite.de - Loctite 601: High-strength screw retention (non-detachable), www.loctite.de
	The marked parts are not required for the described assembly. Dispose of the parts or use them for other purposes.
	Graphical depiction of the installation steps. The numbers correspond to the sequence of installation steps, in accordance with the instructions in the accompanying text.
	Graphical depiction of the designation of components. The letters denote the components mentioned in the accompanying text.
	Detail view from a different direction, for example, the back or the bottom side of the product.

7.6 Assembling the product

7.6.1 Installing the belt section on leg sets

1. Install the belt section on 2 to 4 leg sets.



Please note:

- Install one leg set each in the immediate vicinity of the drive and return unit.
- Install the leg sets under each of the cross connectors of the belt section.
- Max. distance between 2 leg sets: 2000 mm.

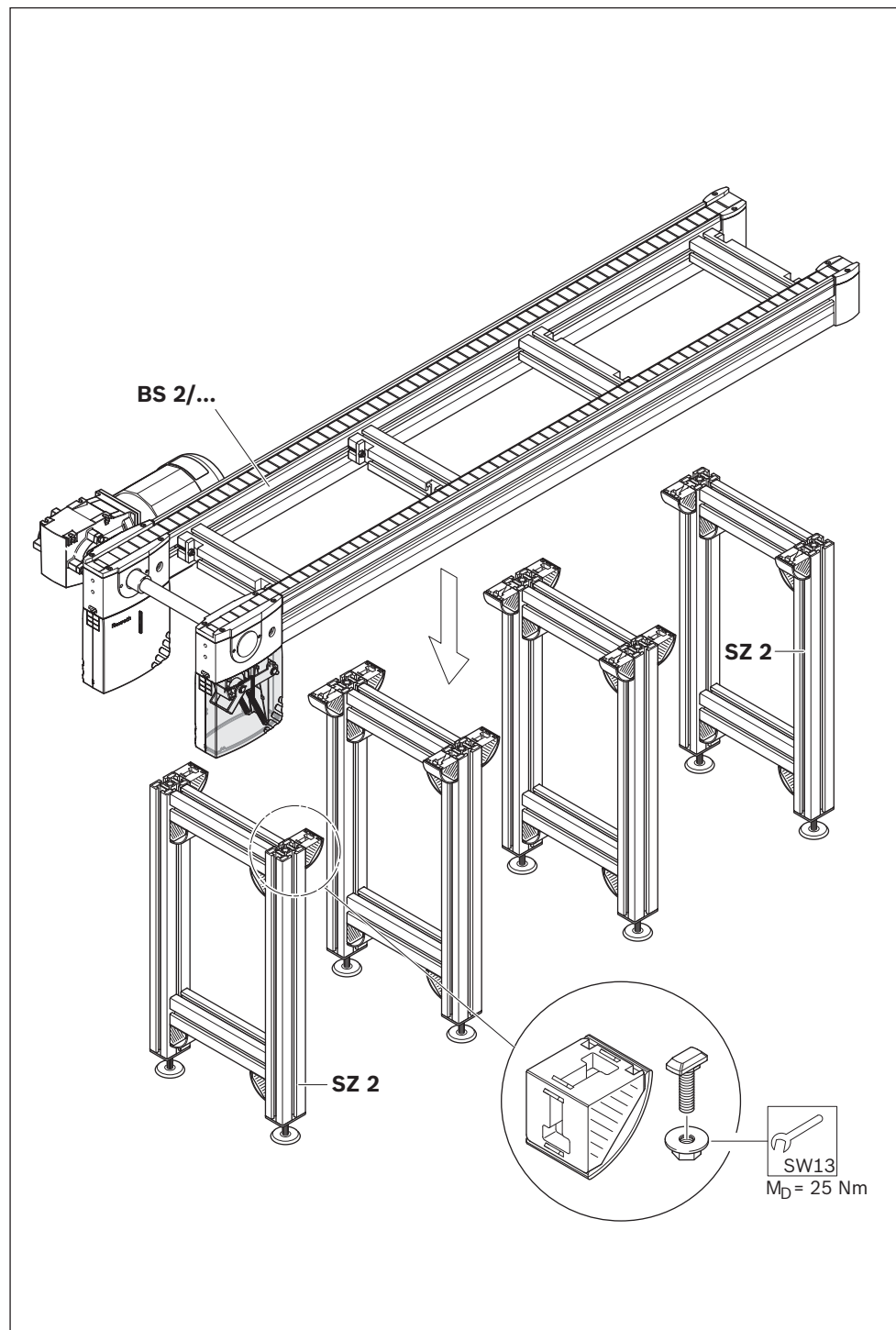
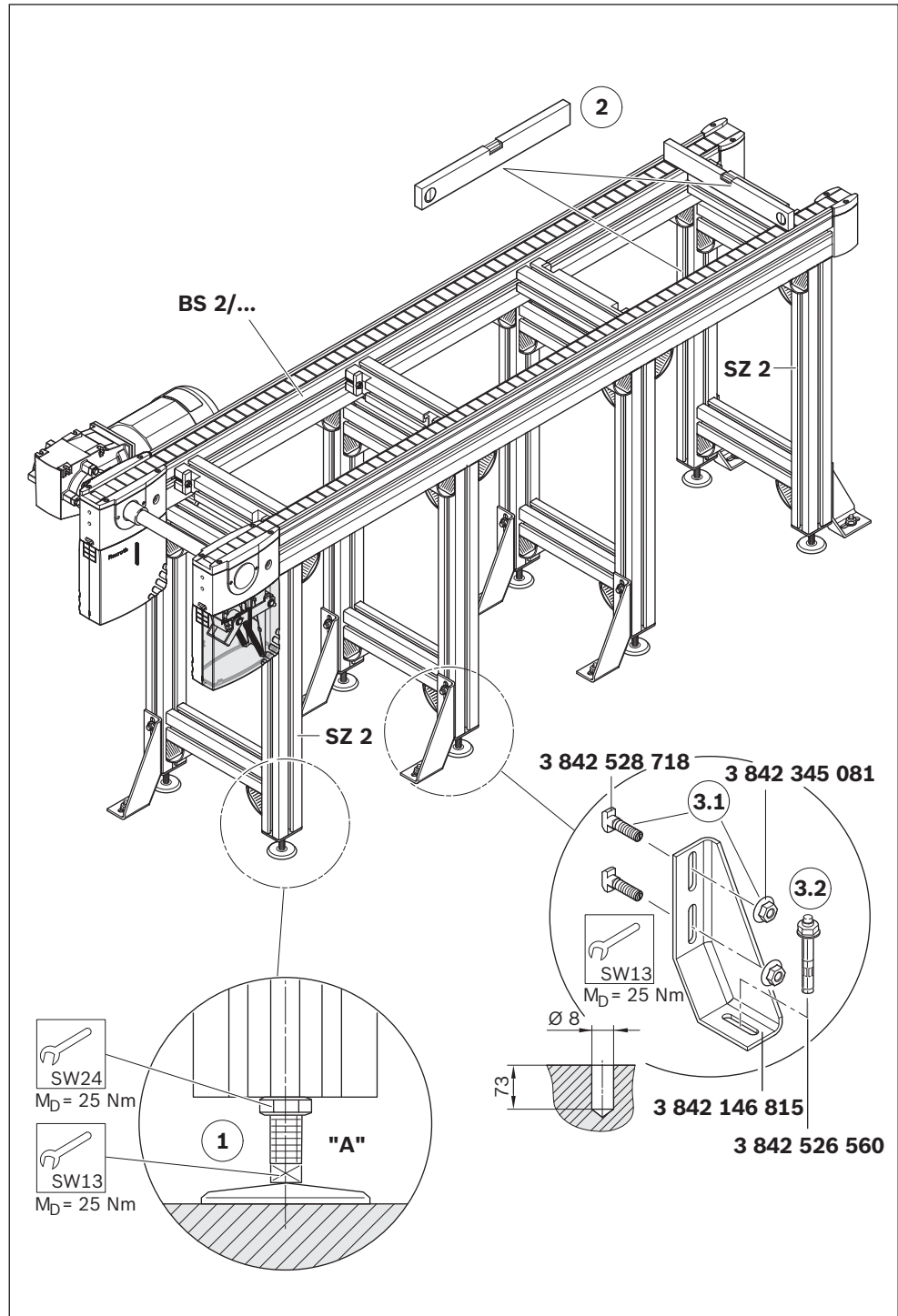


Fig. 3: Installing the belt section on leg sets (1/2)

563 833-02

2. Align the belt section flush, horizontally and by height.
3. Screw the belt section to the floor.
For each connection, you will need:
 - 1x foundation bracket, **3 842 146 815**
 - 1x dowel, **3 842 526 560**
 - 2x T-bolt, **3 842 528 718**
 - 2x flange nut, **3 842 345 081**



563 833-03

Fig. 4: Installing the belt section on leg sets (2/2)

7.6.2 Modifying the mounting position of the motor-gear combination or the gear motor

1. Remove the screws (A / B).
2. Pivot the motor-gear combination or the gear motor around the drive axis in 90° intervals.
3. Install the screws (A / B).

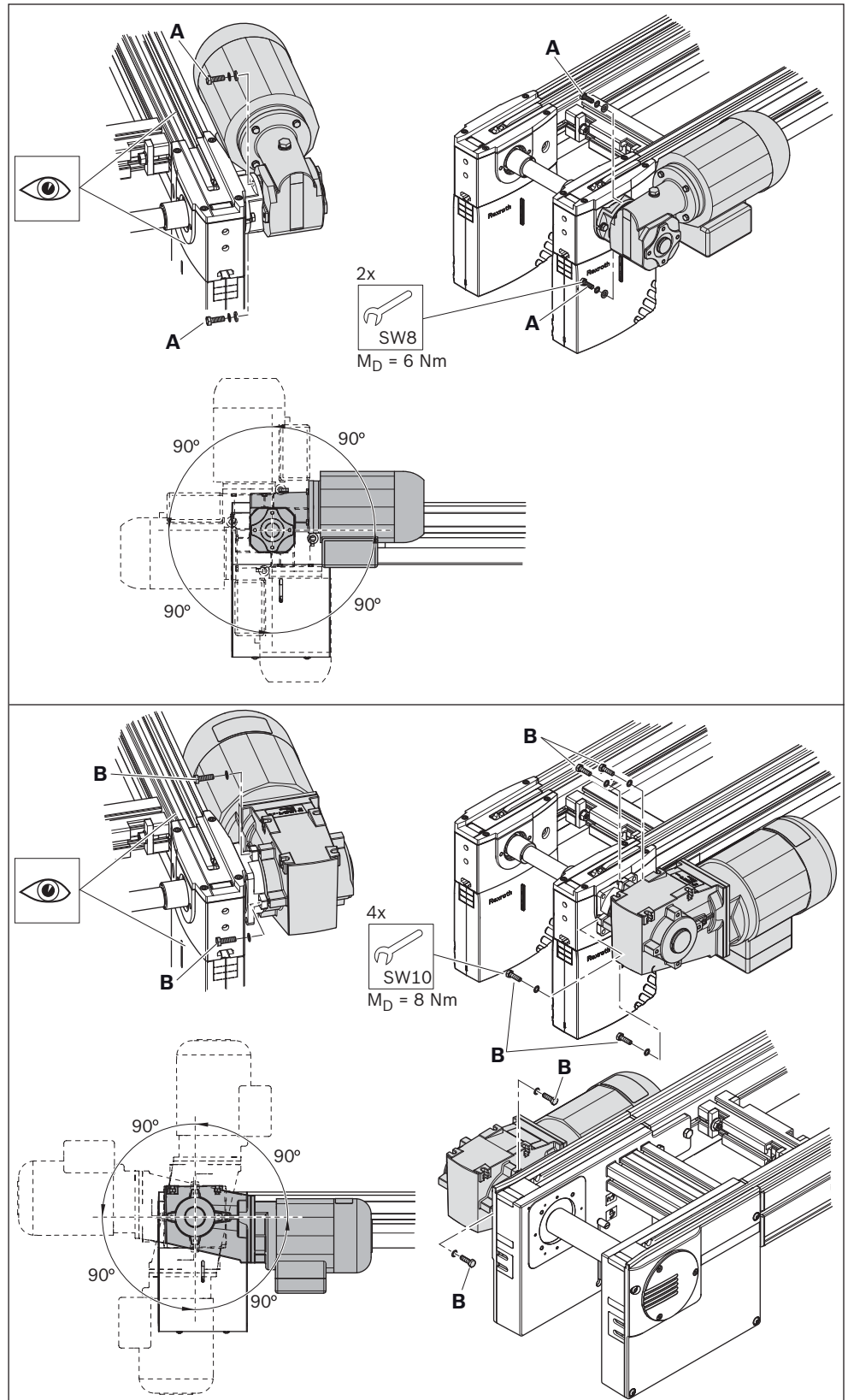


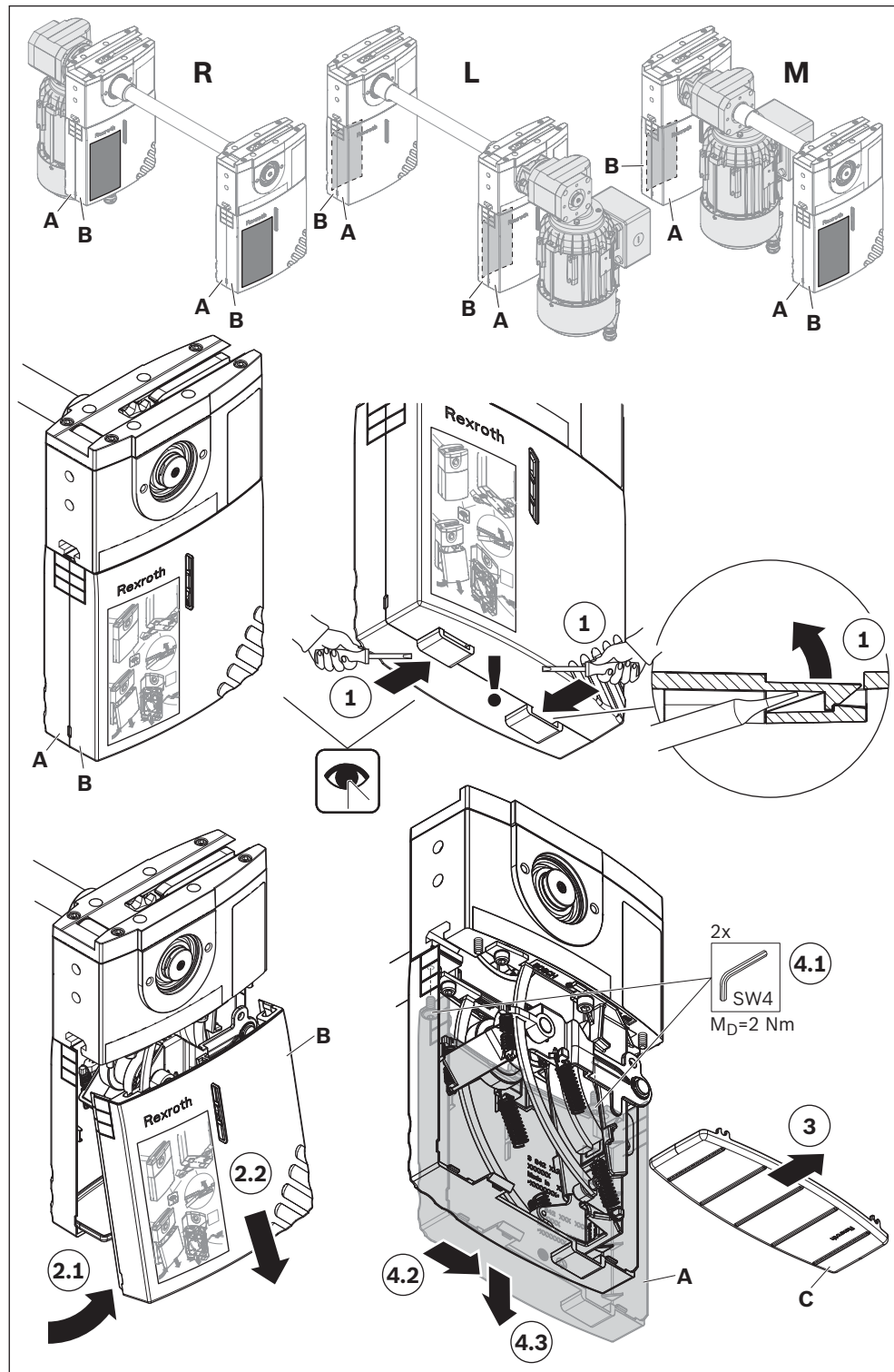
Fig. 5: Swiveling the motor-gear combination or gear motor around the drive axle

358 723-75

7.6.3 BS 2/C-100, ...-250, BS 2/R-300, ...-700: Disassembling the protective case

1. Open the latches using two slotted screwdrivers.
2. Remove the front half of the protective case.
3. Remove the drip tray.
4. If necessary, remove the other part of the protective case.

Mount the protective case in reverse order.



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Fig. 6: BS 2/C-100, ...-250, BS 2/R-300, ...-700: Disassembling the protective case

7.6.4 BS 2/C-100, ...-250, BS 2/R-300, ...-700, BS 4/R-300, ...-700: Installing the belt section between two sections

Required accessories:

- Connection kit
3 842 528 192 (1x)



Please note:

- Support the belt section if necessary with section supports (see page 19).

1. Disassemble the outer protective case halves.
2. At all halves of the protective case, break out a gap for the connection kit at the perforated location (X) according to your application case.
3. Smooth the resulting burr.
4. Install the connection kit (4x).
5. Mount the outer halves of the protective case.

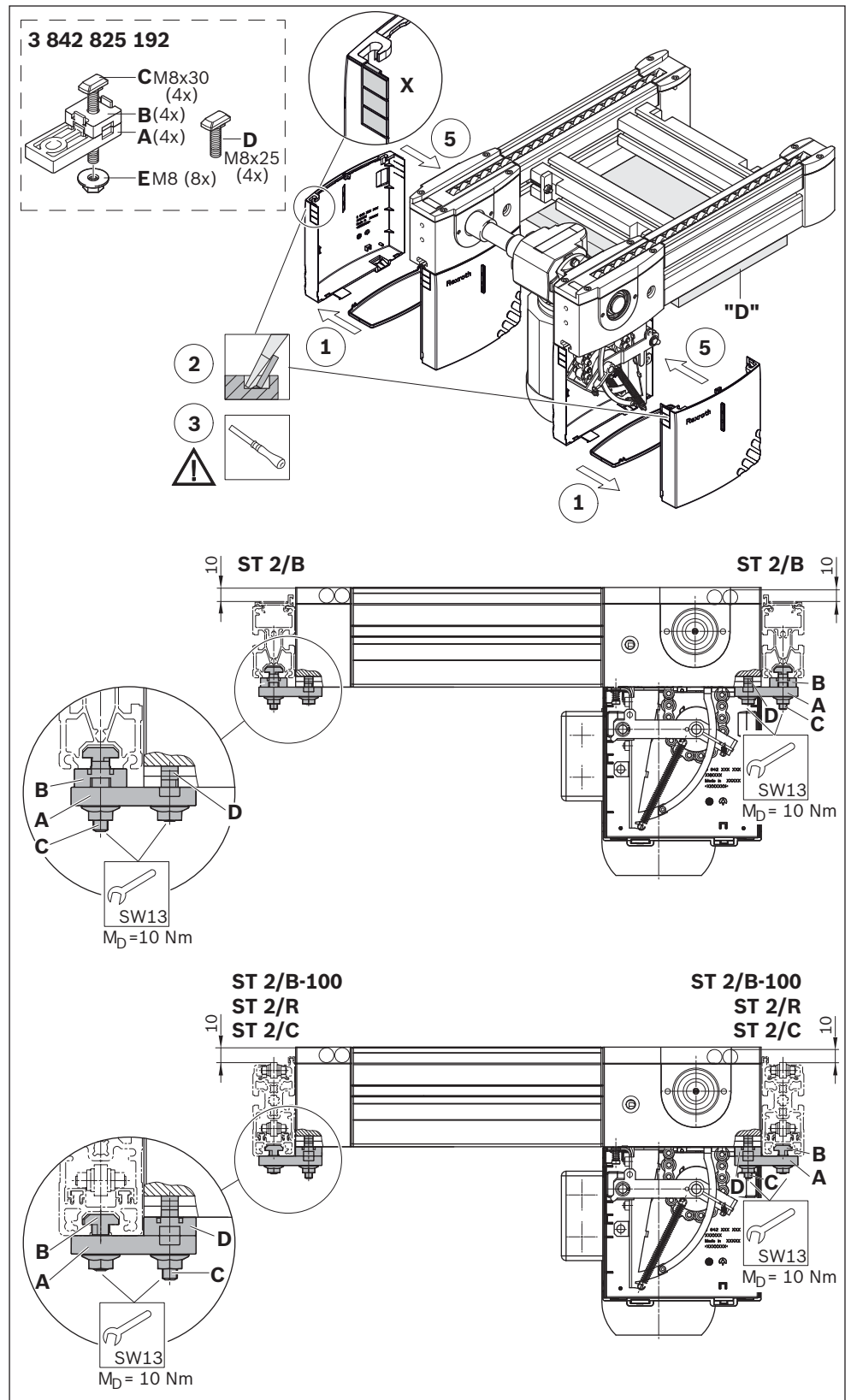


Fig. 7: BS 2/C-100, ... : Installing the belt section between two sections

7.6.5 BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200: Installing the belt section between two sections

Required accessories:

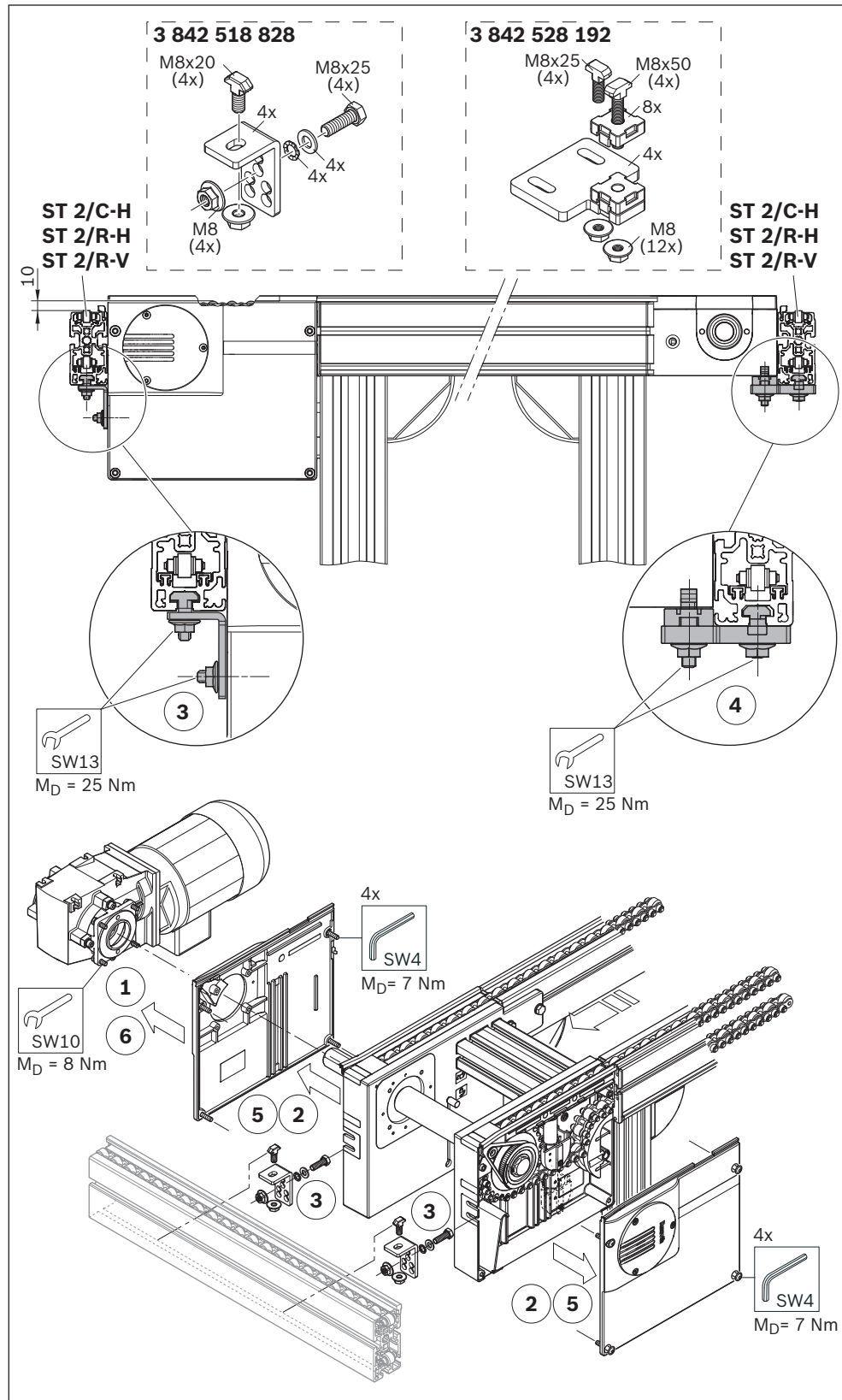
- Connection kit
3 842 518 828 (0.5x)
- Connection kit
3 842 530 868 (0.5x)



Please note:

- Support the belt section if necessary with section supports (see page 19).

1. Remove the gear motor.
2. Remove the side cover plates.
3. Install the connection kit **3 842 518 828** (2x).
4. Install the connection kit **3 842 530 868** (2x).
5. Mount the side cover plates.
6. Mount the gear motor.



563 833-05

Fig. 8: BS 2/C-H, ... : Installing the belt section between two sections

7.6.6 BS 2/R-H, BS 2/R-V+ 1200, reversible: Installing the belt section between two sections

Required accessories:

- Connection kit
3 842 518 828 (0.5x)
- Connection kit
3 842 528 192 (0.5x)

1. Remove the gear motor.
2. Remove the side cover plates.
3. Install the connection kit **3 842 518 828** (2x).
4. Disassemble the outer protective case halves.
5. At all halves of the protective case, break out a gap for the connection kit at the perforated location (X) according to your application case.
6. Smooth the resulting burr.
7. Install the connection kit **3 842 528 192** (2x).
8. Mount the outer halves of the protective case.
9. Mount the side cover plates.
10. Mount the gear motor.

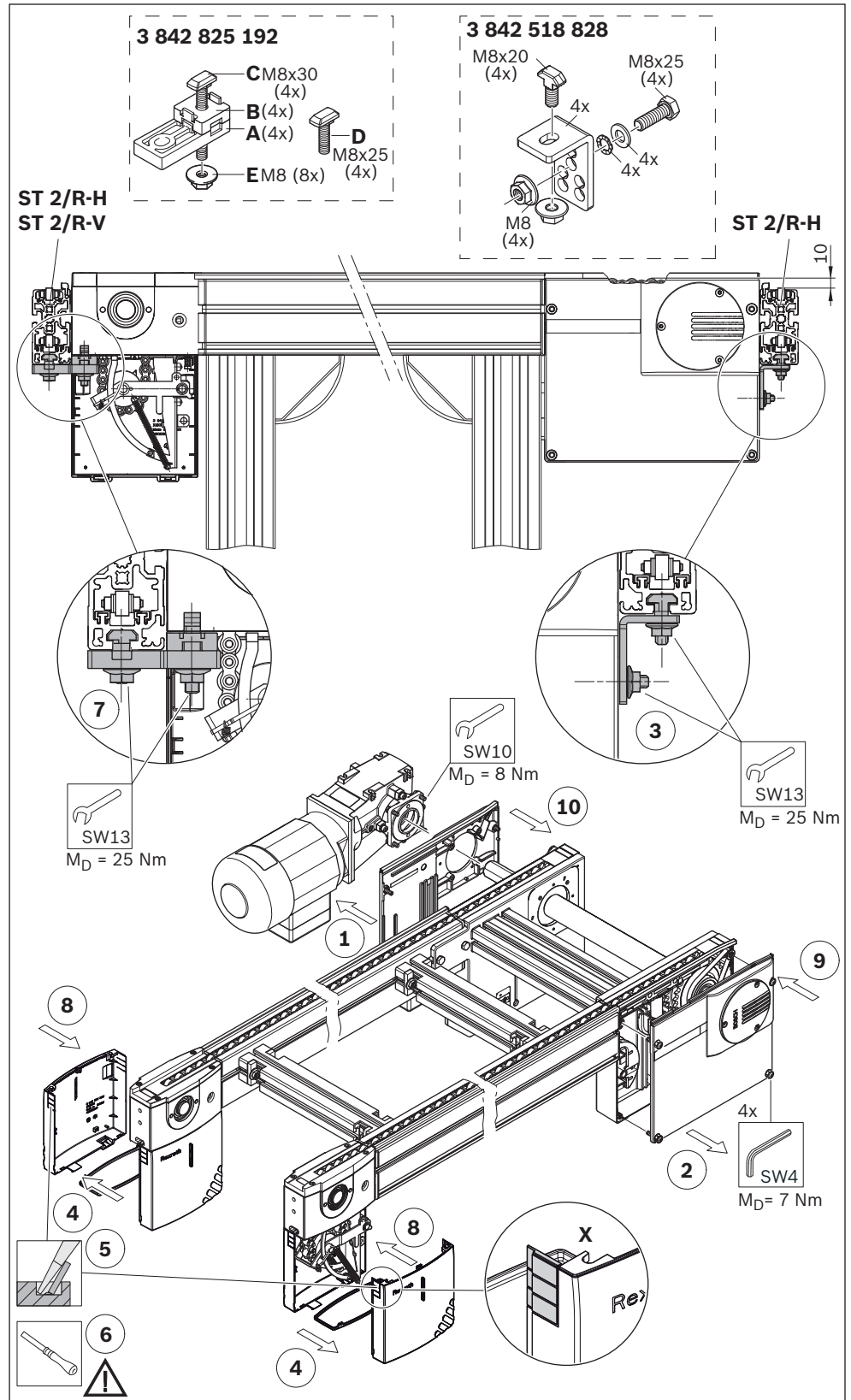


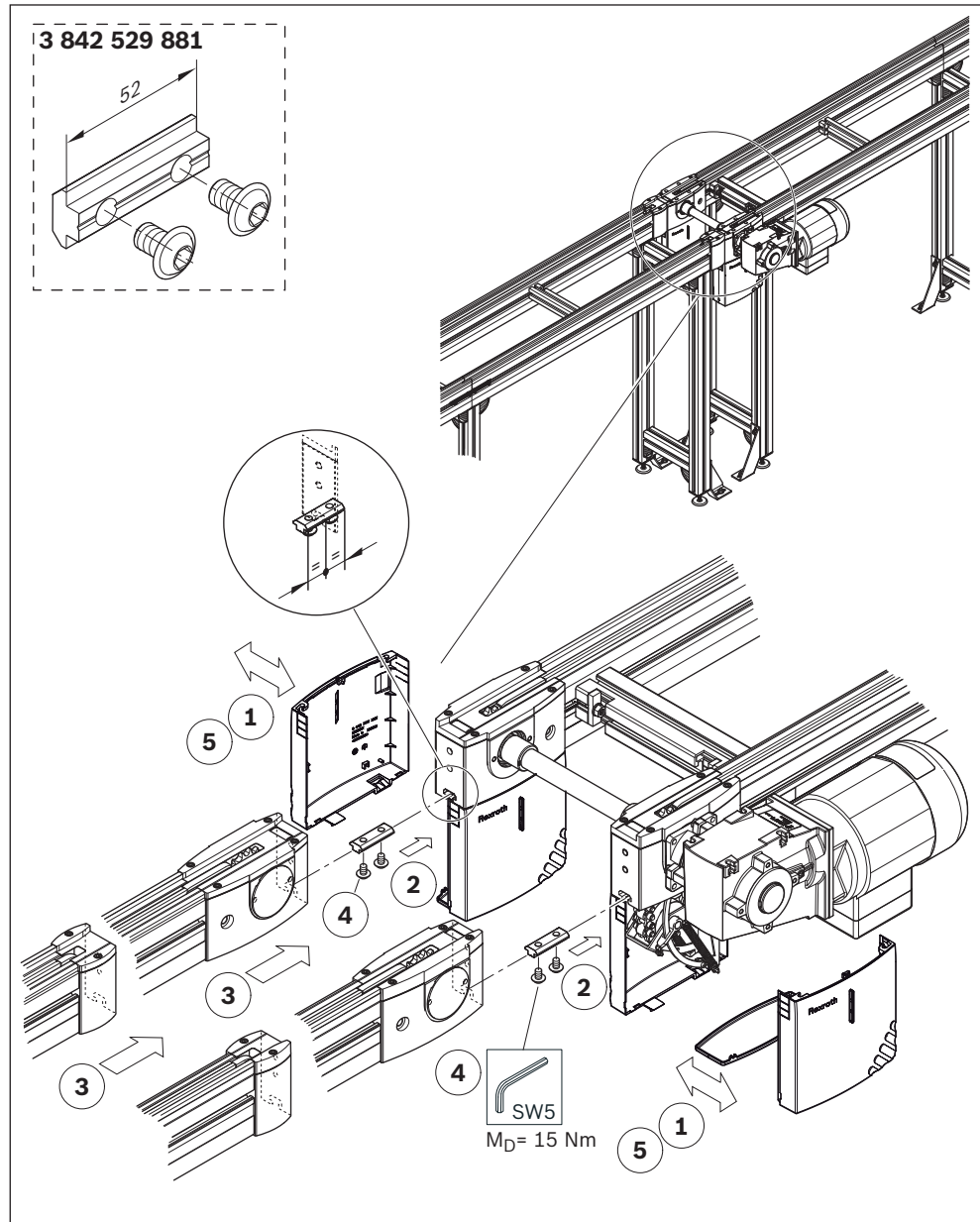
Fig. 9: BS 2/R-H, BS 2/R-V+ 1200, reversible: Installing the belt section between two sections

7.6.7 BS 2/C-100, ...-250, BS 2/R-300, ...-700, BS 4/R-300, ...-700: Assembling two belt sections drive head-to-return unit

Required accessories:

- Connection kit
3 842 529 881 (1x)

1. Disassemble the outer protective case halves.
2. Slide the connection kit into the T-groove at the drive head.
3. Align the return unit of the adjacent belt section and position it without a gap at the height of the drive head.
4. Install the connection kit centrally between drive head and return unit.
5. Mount the outer halves of the protective case.



563 833-72

Fig. 10: BS 2/C-100, ... : Assembling two belt sections drive head-to-return unit

7.6.8 BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200:

Assembling two belt sections drive head-to-return unit

Required accessories:

- Connection kit
3 842 530 871 (1x)

1. Remove the gear motor.
2. Remove the side cover plates.
3. Install the connection kit at the drive head.
4. Align the return unit of the adjacent belt section and position it without a gap at the height of the drive head.
Mount the connection kit to the return unit.
5. Mount the side cover plates.
6. Mount the gear motor.

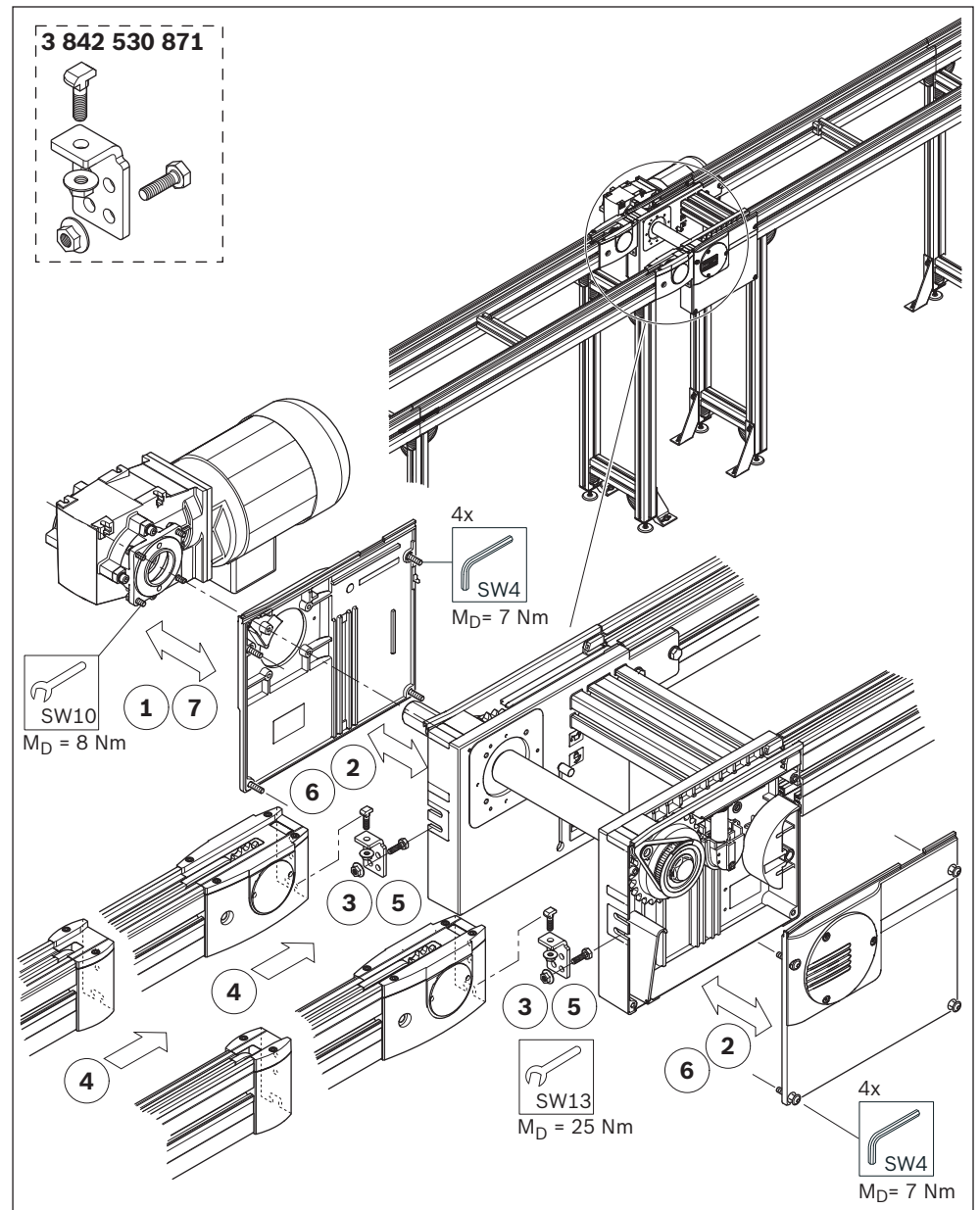


Fig. 11: BS 2/C-H, ... : Assembling two belt sections drive head-to-return unit

7.6.9 Scanning the chain length with sensor: BS 2/C-100, ...-250, BS 2/R-300, ...-700

You can see the elongation of the chain through the slot (A) in the protective case. The lever (B) of the chain tensioner moves from the top (new/shortened chain) downwards (elongated chain) as the chain length increases. If the lever is no longer visible in the slot, the chain must be shortened.

Alternatively, install a sensor (E, **3 842 551 761** / $\varnothing 8$ mm, max. length incl. bending radius of the cable: 45 mm) in the attachment tab.

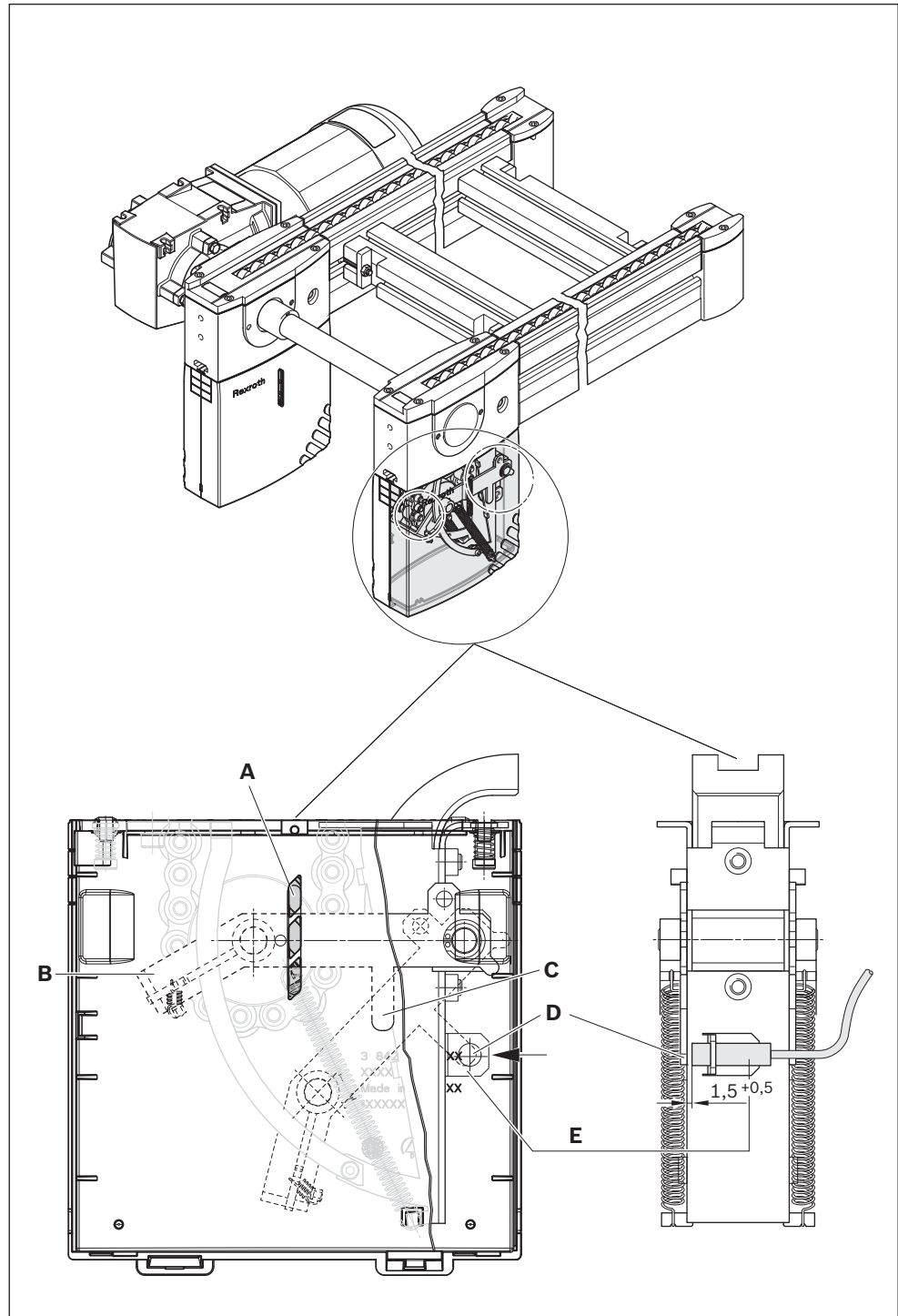
Switching distance
 1.5 ± 0.5 mm

The vane (C) damps the sensor when the maximum permissible chain length is reached.



Please note:

- Be sure to comply with the switching distance; otherwise, the sensor will be mechanically destroyed
- For control, lead the cable out through the cutout in the protective case.



563 833-07

Fig. 12: Scanning the chain length with sensor, “small” drive head

7.6.10 Scanning the chain length with sensor: BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200

You can see the length of the chain at the level of the tensioning lever (X) of the chain tensioner. The tensioning lever (X) moves from the top (new/shortened chain) downwards (elongated chain) as the chain length increases. When the tensioning lever (X) is in the lowest position, the chain must be shortened.

Alternatively, mount a sensor to indicate the lowest position of the clamping lever (X).

- Sensor support SH 2/UV, **3 842 557 600 1)**
- Sensor **3 842 549 813 2)** / **3 842 557 633 2)**

- 1) Scope of delivery
2) Not included in the scope of delivery!

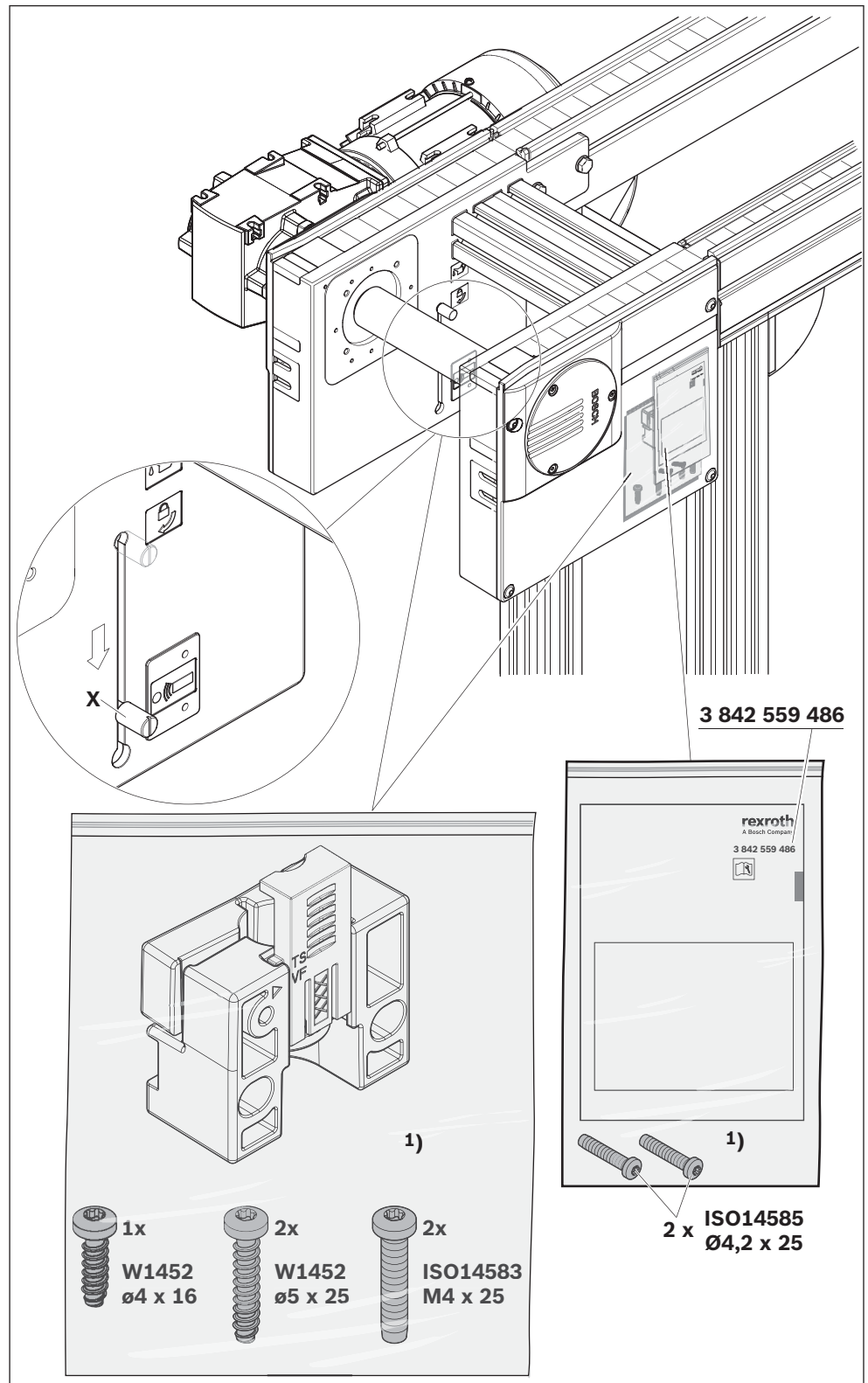


Fig. 13: Scanning the chain length with sensor, “large” drive head (1/2)

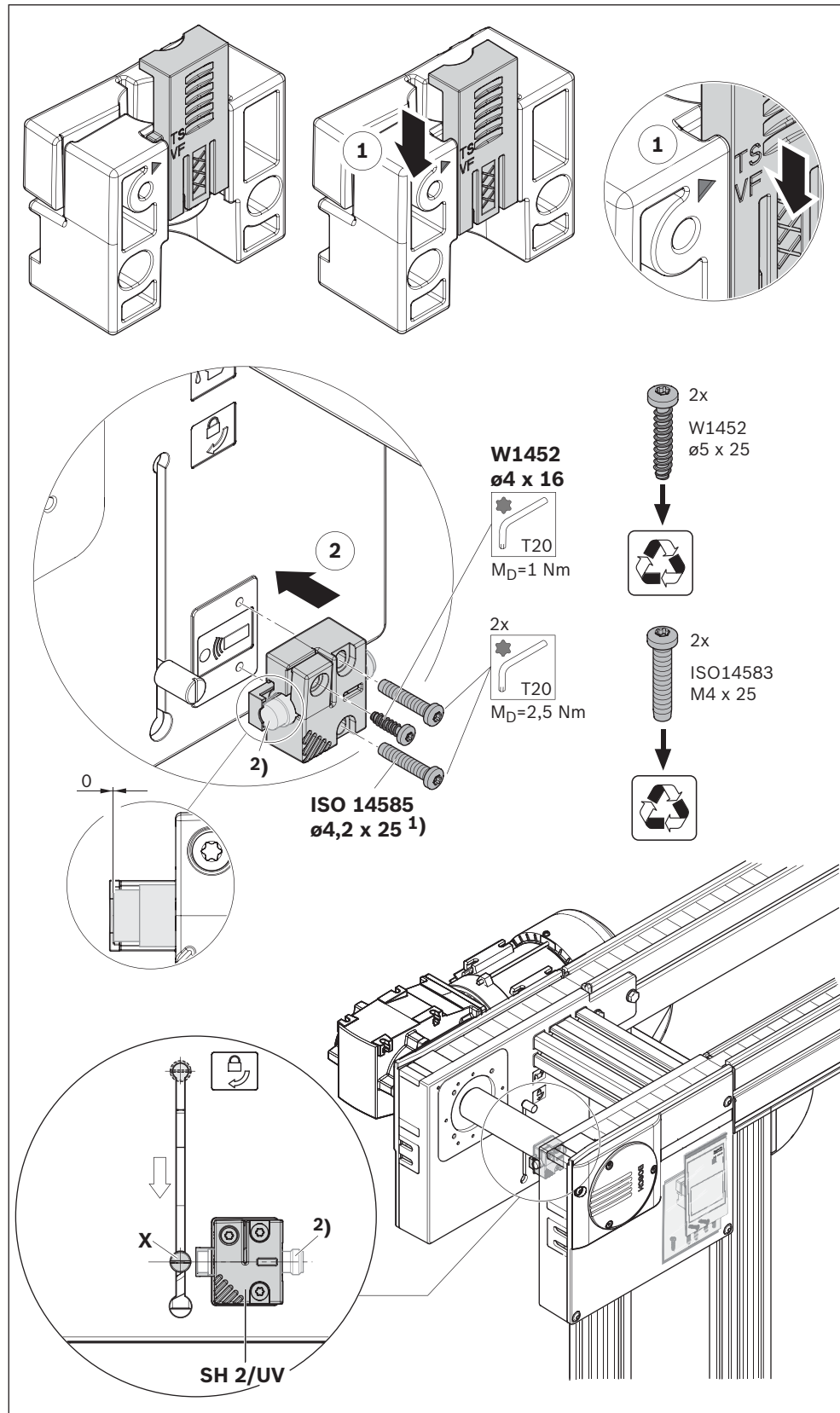
1. Adjust the stop of the sensor support.
2. Install the sensor support with the provided screws.

- 1) Scope of delivery
2) Not included in the scope of delivery!



Please note:

Fully slide the sensor into the sensor support.



358 736-109

Fig. 14: Scanning the chain length with sensor, "large" drive head (2/2)

7.6.11 BS 2/R-300, ...-700:

Assembling the acceleration element (only for $l_{WT} = 160/240$)



Please note:

Perform the steps on both sides in parallel.

1. Remove the gear motor.
2. Remove the outer protective case halves.
3. Using a wrench, turn the drive shaft in the conveying direction until the chain lock appears on the chain tensioner.



You can recognize the chain lock of the accumulation roller chain by the galvanized tab (2).

4. Pull the chain tensioner up (3) and fix it in its end position with a pin or screwdriver.

3) BS..., reversible: unlock the chain tensioner by lifting the "latch" (Fig. 14, item 4).

5. Open the chain at the chain lock.
6. Remove the drive head covers.
7. Pull the chain back until the sliding piece in the drive head is exposed.
8. Replace the sliding piece with the supplied sliding piece **3 842 564 978** (without Rexroth marking).

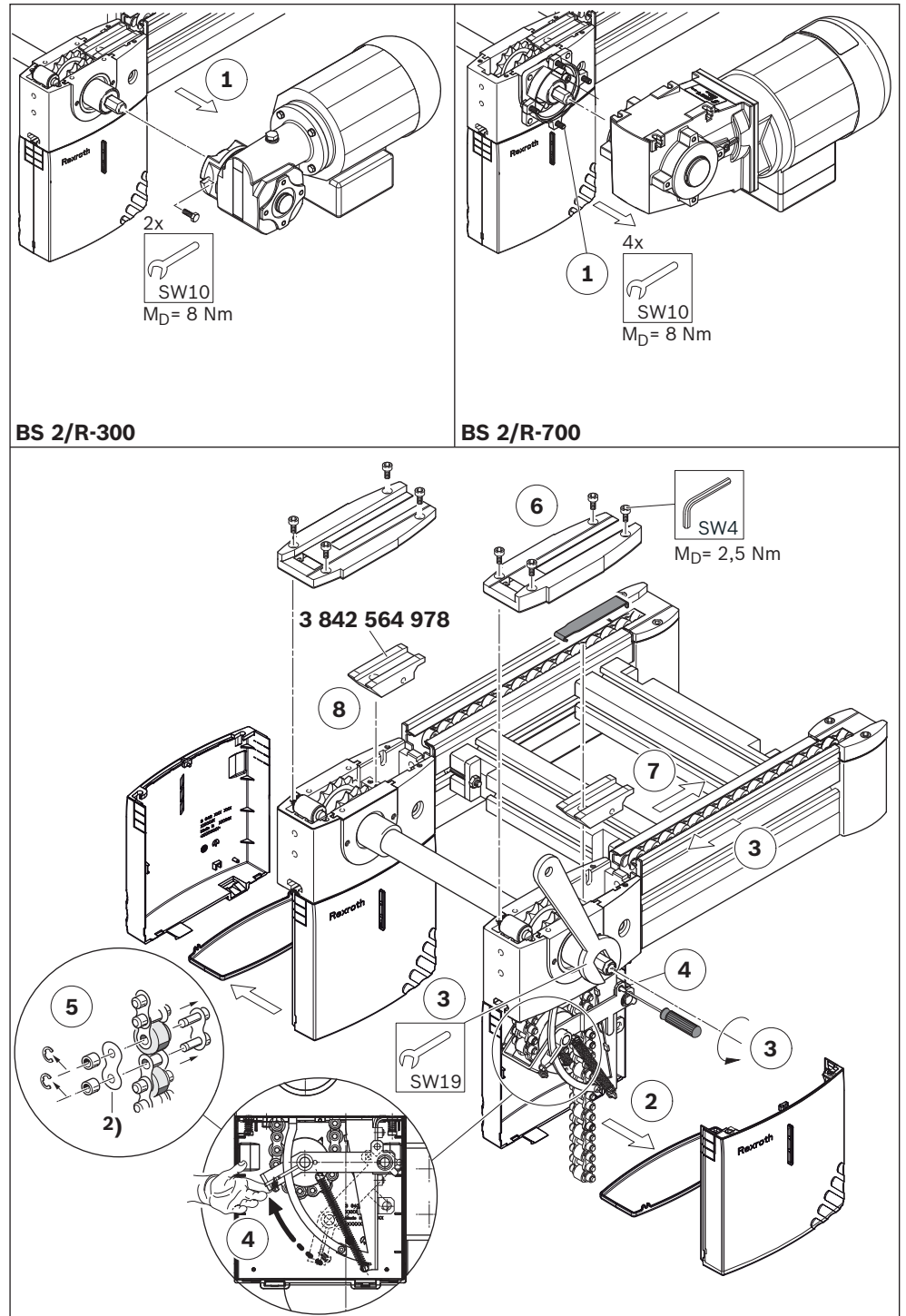
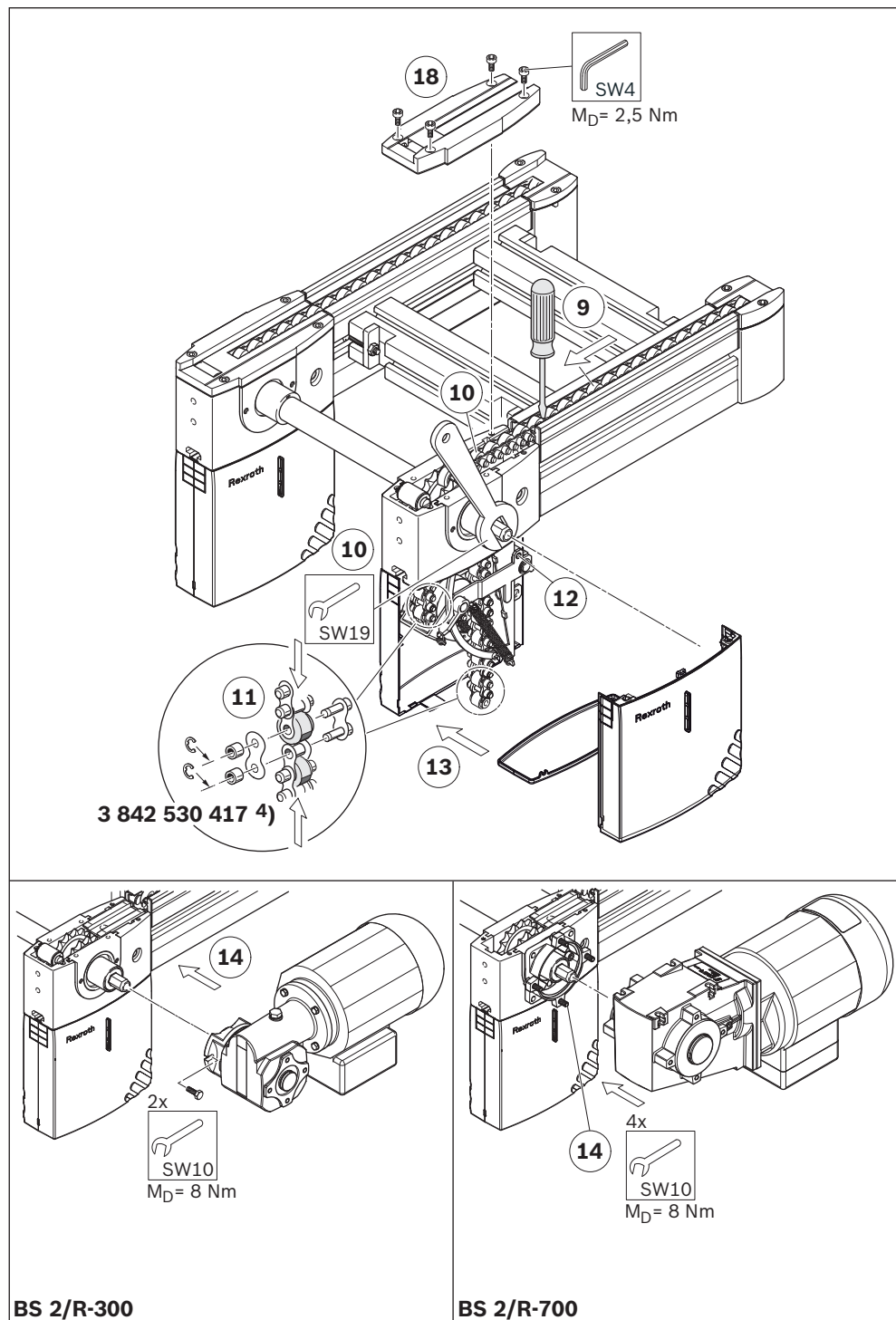


Fig. 15: Assembling the acceleration element (1/2)

9. Drag the chain in the top guide profile to the drive head.
10. Place the chain on the drive wheel.
Rotate the drive wheels in the conveying direction until the chain appears on the chain tensioner.
11. Close the chain.
- 4) Chain lock:
– for accumulation roller chain:
3 842 530 417
12. Loosen the mount of the chain tensioner.
Check the tension of the chain.
13. Mount the outer halves of the protective case.
14. Install the gear motor.

**Please note:**

- Avoid accumulation above the acceleration element. Accumulation above the acceleration element causes severe roller wear and shortens the service life of the chain.



563 833-10

Fig. 16: Assembling the acceleration element (2/2)

7.6.12 Electrical connection of the product

WARNING

High electrical voltage!

- ▶ Risk of severe injury or death from electric shock.
- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

- Choose control and sensor elements in accordance with EN ISO 13849. Factor in the load being transported and the transport speed.
- Electrical work may only be carried out by qualified personnel! (e.g. connecting the motor)
- Comply with the standard DIN EN 60204 (previously: VDE regulation VDE 0100) for Germany, or the corresponding regulations in the country of use.

Motor connection

- Observe the available line voltage!
- Observe the electrical power requirement shown on the motor nameplate, see Fig. 16 on page 34.
- Connect the motor in either a wye or a delta configuration in accordance with the wiring diagrams, see Fig. 17 on page 34, and the wiring diagram in the terminal box.
- The motor is fitted with a bimetal temperature monitoring switch (potential-free thermal contact, 230 V AC, 300 mA). Wire the motor so that it is de-energized when the switch is triggered.
- Insert the cable so that it cannot get damaged during operation.
- Optional motor connection with plug (AT = S), see Fig. 18 on page 34. Observe the pre-fuse!

Checking the rotational direction of the motor

- Let the system run for no more than 2 secs., then ensure the correct rotational direction of the motor.
- Switch any two wires (U1, V1 or W1, see Fig. 19 on page 35) to change the motor's rotational direction.



Please note:

For motors that come with a fitted plug, correct the rotational direction in the control cabinet or at the socket contact (socket side). This makes replacement easier.

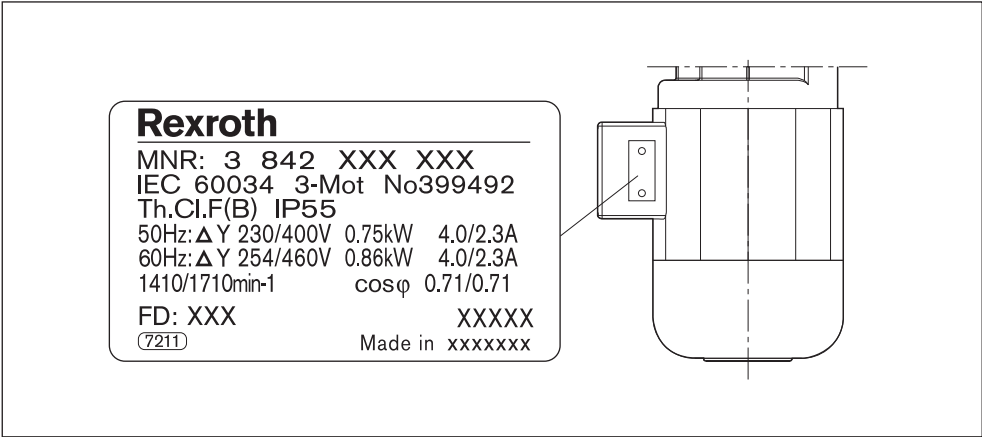


Fig. 17: Motor nameplate (example)

Installation_A

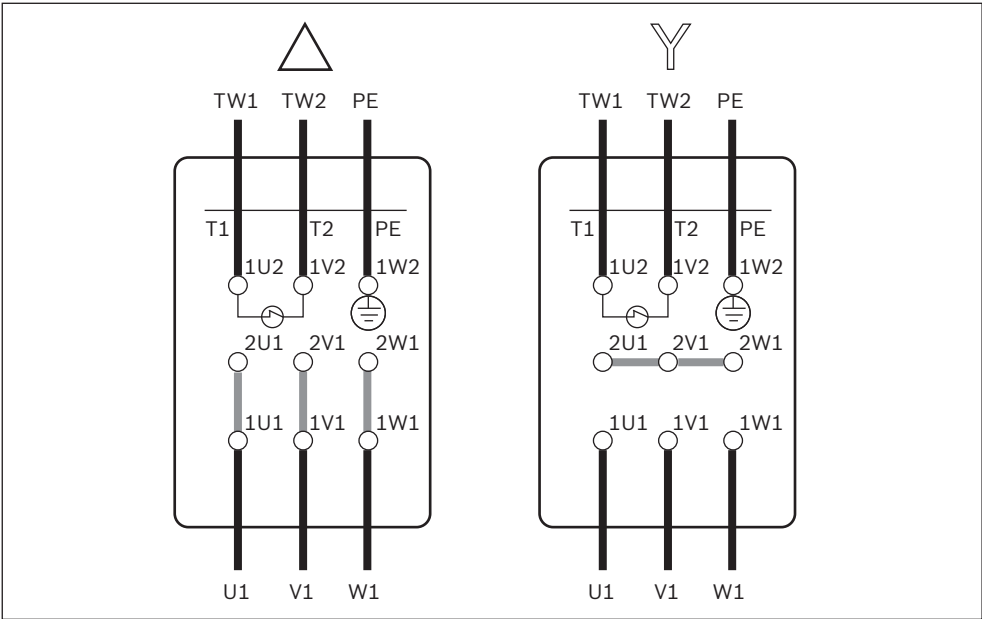


Fig. 18: Delta/ye connection diagrams

Installation_DY

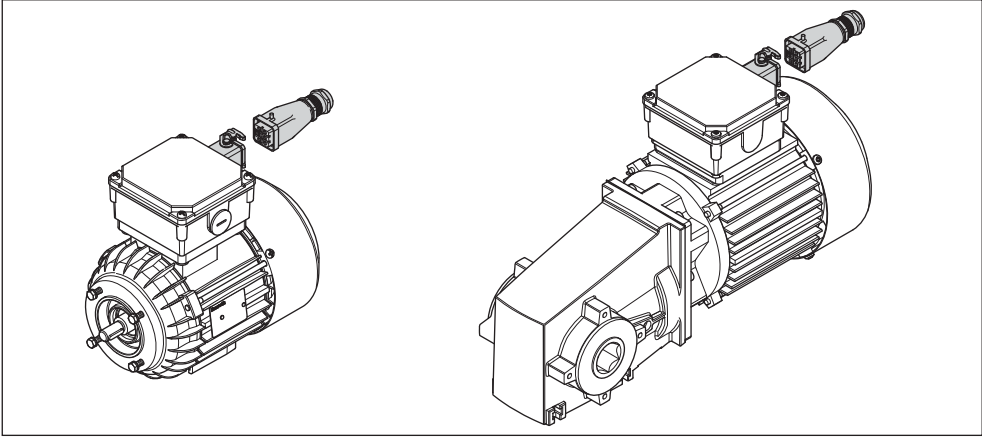
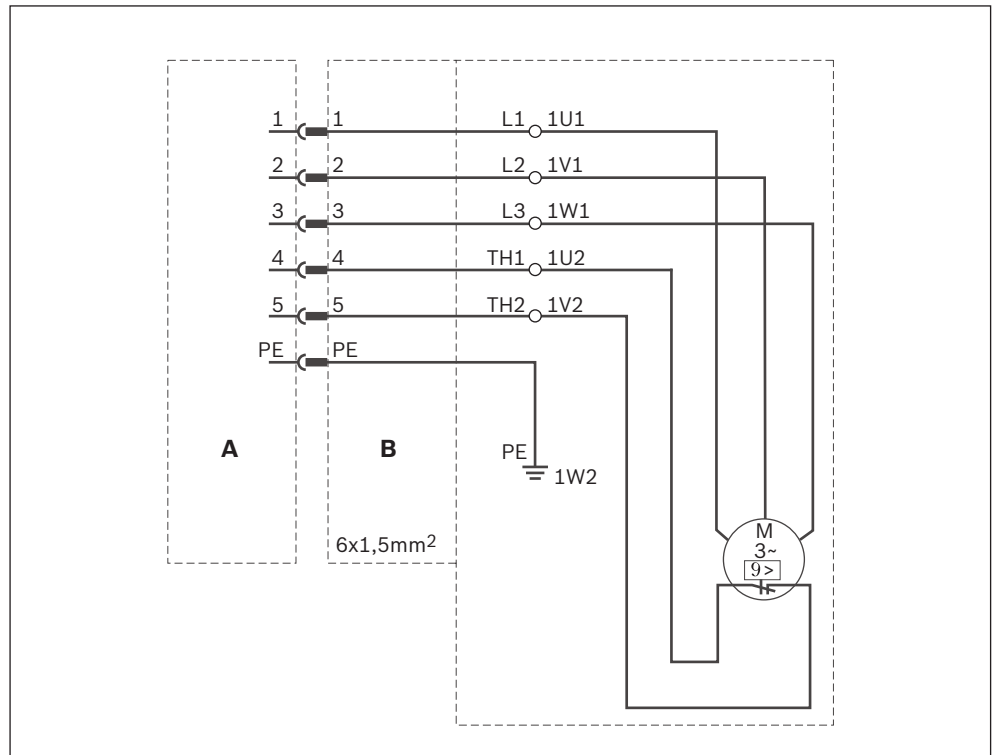


Fig. 19: Optional motor connection with plug (AT = S)

Installation_IEC



Installation_S-plan

Fig. 20: Motor connection with plug (AT = 1), circuit diagram

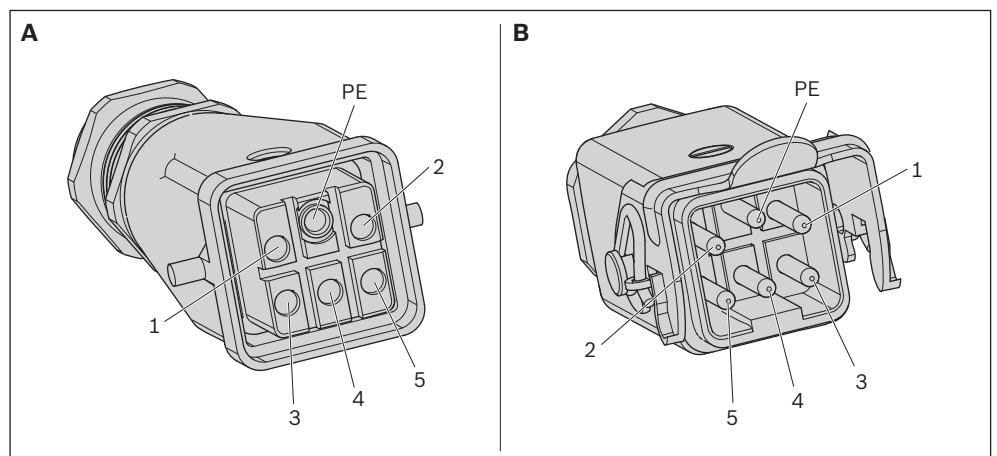
A: Connection cable side

B: Motor side

The push-in fitting consists of UL components.

Connection list

Connection terminals, motor 3~	Pin no.	Code
U1	1	L1
V1	2	L2
W1	3	L3
TW1	4	Th1
TW2	5	Th2
	PE	PE



Installation_Stecker

Fig. 21: Motor connection with plug (AT = 1), push-in fitting

A: Connection cable side

B: Motor side

8 Commissioning

8.1 Initial commissioning



CAUTION

Sudden movements, falling workpiece pallets

- ▶ Injuries caused by falling objects.
- ▶ Make sure that the product has been installed properly by qualified personnel (see page 9) before starting it up.

NOTICE

Malfunctions due to incorrect assembly and commissioning

- ▶ The product can get damaged, shortening its service life.
- ▶ Commissioning requires basic mechanical, pneumatic and electrical knowledge.
- ▶ The product should only be started up by qualified personnel (see page 9).

Failure of the conveyor chain (flat top chain / accumulation roller chain)

- ▶ Inadequate lubrication can result in conveyor chain failure or even crashing. There is a risk of damage to property.
- ▶ Lubricate the conveyor chain before commissioning, then every 1,000 h, with Structovis GHD, **0 842 904 229**, see page 43, 44.
- ▶ Lubricate the conveyor chain after downtimes > 6 months (e.g. long assembly time or temporary shutdown).

- Before the initial commissioning or re-commissioning of a conveyor system, carry out a risk assessment in accordance with DIN EN ISO 12100.
- According to EU Machinery Directive 2006/42/EC, you must equip the transfer system with EMERGENCY STOP control devices.
- The surfaces of motors and gears can reach temperatures of over 65 °C under certain load and operating conditions. In these cases, you must comply with the respective applicable accident prevention regulations (UVV) by taking appropriate constructive measures (safety guards) or by affixing/displaying appropriate warning signs!
- Make sure that all electrical and pneumatic connections are either used or covered. Make sure that all bolted connections and plug-in connections are properly seated. All relevant protective covers must be fitted.
- Only inspect and adjust continuous conveyors that are in motion or operation when the protective equipment is in place.
- Observe DIN EN ISO 13857 when you remove or replace protective equipment and/or bypass safety equipment.
- Test runs with open paneling should only be performed by a person with appropriate knowledge and experience using tip switches, and if there is no possibility of interference from other switching devices.
- Only commission the product if all safety equipment has been installed in the system and is ready for use.
- Only commission a product that has been completely installed.

Life stages of the machine according to EN 12100 Sect. 5.4 a /b (No. 1- 27), Sect. 5.4 a

- 1** Transport, assembly and installation
- 2** Commissioning
- 3** Use
- 4** Disassembly, decommissioning and disposal
- 5** Setting up
- 6** Verifying
- 7** Teaching/programming
- 8** Changeover
- 9** Startup
- 10** All operating modes
- 11** Feeding the machine
- 12** Removing product from the machine
- 13** Shutting the machine down
- 14** Shutting the machine down in the case of an emergency
- 15** Restoring operation after a bottleneck or blockage
- 16** Restarting after unscheduled shutdown
- 17** Troubleshooting and remedial action (intervention by operating personnel)
- 18** Cleaning and keeping clean
- 19** Preventive maintenance
- 20** Corrective maintenance

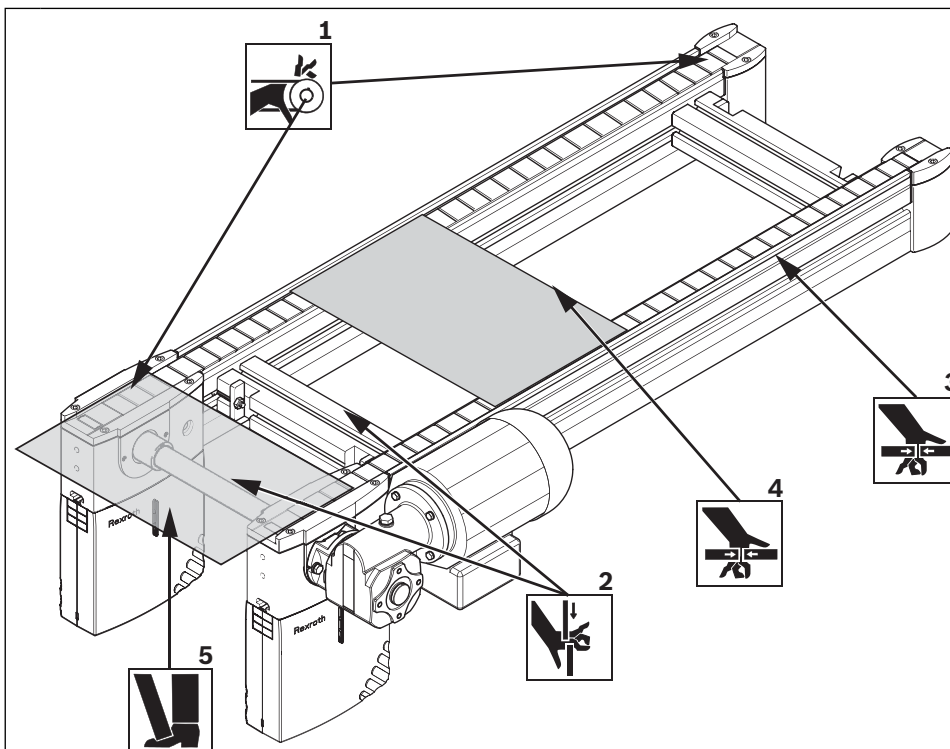
Operating states of the machine, Sect. 5.4 b

- 21** Normal operation
- 22** Modification of a property or a dimension of the material or workpiece to be processed
- 23** Failure of one (or more) of its components or supply devices
- 24** External disturbances (e.g. impact, vibration, electromagnetic interference)
- 25** Design faults or defects (e.g. software errors)
- 26** Disruption in the power supply
- 27** Ambient conditions (e.g. damaged floors)

8.2 Residual risks

Table 7: Residual risks

	Location	Situation	Hazard		Action
1	Conveyor medium pinch point	Pieces of clothing or long hair can be pulled in		Crushing, pulling out of hair	Do not reach into the system while it is running. Wear protective clothing.
2	Cross connector; gear; drive shaft: Between component and workpiece pallet	Trapping of limbs	 	Crushing, Shearing	Do not reach into the system while it is running. At workspaces, crush and shear points on roller conveyors, suspension chain conveyors or multiple belt conveyors between rollers, drive shafts, cross struts or fixed parts and moving bulk goods must be secured. Risks of crushing and shearing may be deemed avoided if the static force for stopping the load is less than 150 N.
3	Conveyor medium: between running conveyor and stationary workpiece pallet (e.g. during separation)	Trapping of limbs		Crushing	Do not reach into the system while it is running.
4	Between workpiece pallets	Trapping of limbs	 	Crushing, Shearing	Do not reach into the system while it is running. At workspaces, relative movements of loads (e.g. at accumulating conveyors) which lead to the loads approaching a distance of less than 500 mm must be avoided. (e.g. through pre-separation of the workpiece pallets) Risks of crushing may be deemed avoided if the static force for stopping the load is less than 150 N.
5	End of belt section	Crushing injury to body parts caused by falling objects		Crushing	A constructive solution is required, e.g. by means of a stopper.



8.3 Re-commissioning after a standstill

Follow the steps outlined for the initial commissioning.

9 Operation

CAUTION

Hot electric motor surfaces during operation!

- ▶ Risk of burns from touching hot surfaces above 65 °C
- ▶ Install appropriate guards.
- ▶ Let the unit cool down for at least 30 minutes before performing maintenance and/or repair work.

NOTICE

Malfunction of the belt section in reversible operation

- ▶ Operating the belt section exclusively opposite the preferred direction (workpiece pallet moves to the drive head) leads to failure of the chain tensioner or even to crash. There is a risk of damage to property.
- ▶ Comply with the preferred direction (workpiece pallet moves to drive head).
- ▶ If the overrun mode is used exclusively, change the conveying direction for one chain cycle every 1000 h to ensure the function of the chain tensioner.

Wear due to congestion on the connection belt roller

- ▶ Congestion on the connection belt roller (BS 2/C-H, ...R-H, ...R-V) leads to increased wear at the workpiece pallet. There is a risk of damage to property.
- ▶ Avoid congestion on the connection belt roller.

9.1 Information on operation

9.1.1 Wear

- Individual components are subject to unavoidable wear by their very nature. Constructive measures and the selection of materials help ensure functional safety over the full service life. However, wear is also dependent on the operating, maintenance and ambient conditions at the place of use (resistance, contamination).
- Overloading the conveyor sections can cause the conveyor medium to malfunction and lead to the premature breakdown of motors and gears.
- If pneumatically activated components are overloaded, it is not possible to guarantee their function.

9.1.2 Measures to reduce wear

The following obvious measures will reduce wear:

- Switch off the conveyor section during line downtime, e.g. during breaks, at night and on weekends.
- Do not select a higher speed for the conveyor section than that required for the corresponding function.

- Avoid contamination caused by abrasive media, reduce contamination by cleaning on a regular basis.

9.1.3 Loading the workpiece pallet

The modular units are designed and tested under the assumption that the workpiece pallets will not all have the same weight during one cycle on one conveyor section. Workpiece pallets (WT) are both loaded and unloaded. Significantly different weights may require special measures to avoid malfunctions. This applies to:

- The permitted accumulation length before stop gates.
- Damper functionality.
- Dampened stop gates.

9.1.4 Environmental factors

- Our products are resistant to many media that are commonly found in manufacturing, such as water, mineral oil, grease and detergents. Contact your Rexroth representative if you have any doubts about resistance to specific chemicals, such as test oil, doped oils, aggressive cleaning agents, solvents or brake fluid.
- Avoid prolonged contact with highly reactive acidic or alkaline materials.
- Contamination can greatly increase wear – specifically from abrasive media from the surrounding area, such as sand and silicates, e.g. from construction as well as machining processes in the transfer system (e.g. welding beads, pumice dust, glass shards, chips, waste parts, etc.). Maintenance intervals should be significantly shortened under these circumstances.
- Resistance to media and contamination does not mean that functional safety is guaranteed in every case.
 - Liquids that thicken as they evaporate and become highly viscous or adhesive (sticky) can lead to malfunctions.
 - If they get carried onto systems with rollers, media which have lubricating properties can lead to a reduction in the drive power that is transmitted via friction.
 In such instances, special care must be taken when planning the system, and the maintenance intervals must be correspondingly shortened.

10 Maintenance and repair



WARNING

High electrical voltage!

- ▶ Risk of severe injury or death from electric shock.
- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

High pneumatic pressure!

- ▶ Risk of severe injury or death.
- ▶ Switch off the compressed air supply to the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

 CAUTION**Hot electric motor surfaces during operation!**

- ▶ Risk of burns from touching hot surfaces above 65 °C
- ▶ Install appropriate guards.
- ▶ Let the unit cool down for at least 30 minutes before performing maintenance and/or repair work.

- Only inspect and adjust continuous conveyors that are in motion or operation when the protective equipment is in place.
- Observe DIN EN ISO 13857 when you remove or replace safety guards and/or bypass protective equipment.
- Test runs with open paneling should only be performed by a person with appropriate knowledge and experience using tip switches, and if there is no possibility of interference from other switching devices.

10.1 Cleaning and care

NOTICE

Failure of bearings

- ▶ Applying grease-dissolving substances to the bearing points, e.g. during cleaning, leads to bearing failure. There is a risk of damage to property, and the service life may be reduced.
- ▶ Keep degreasers or aggressive cleaning agents away from the bearings!
- ▶ Only clean the product with a damp cloth.

Failure of the conveyor chain (flat top chain / accumulation roller chain)

- ▶ Insufficient lubrication or wetting of the conveyor chain with grease-dissolving substances, e.g. during cleaning, can result in conveyor chain failure or even crashing. There is a risk of damage to property.
- ▶ Always comply with the maintenance intervals.
- ▶ Keep a maintenance schedule.
- ▶ Keep degreasers or aggressive cleaning agents away from the conveyor chain!
- ▶ Only clean the product with a damp cloth.

10.2 Inspection

10.2.1 Conveyor chain (flat top chain / accumulation roller chain)

Check the conveyor chain regularly for wear and sufficient lubrication by visual inspection.

10.3 Maintenance

10.3.1 Bearings

The bearings have lifelong lubrication and are maintenance-free under normal conditions of use.

10.3.2 Gear

The gears are maintenance-free.

10.3.3 Motor

To ensure adequate cooling of the motors, regularly remove dirt and dust deposits:

- from the surface of the motor,
- from the intake openings on the fan hood,
- from between the cooling ribs.

The cleaning intervals depend on the ambient and operating conditions.

10.3.4 Conveyor chain (flat top chain / accumulation roller chain)

The conveyor chain used in this product comes lubricated.

Lubricate the conveyor chain before the initial commissioning with Structovis GHD **0 842 904 229**, using 1–2 g oil/m of chain, then every 1,000 hrs with 2–3 g oil/m of chain.

Due to the system, the lubricant may be discharged.

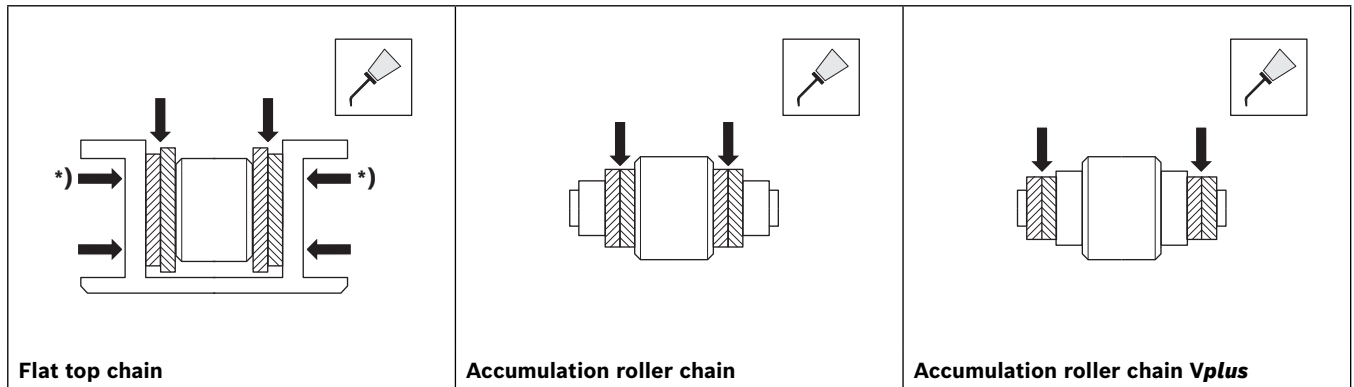


Fig. 22: Lubricating points

*) Also lubricate the flat top chain on the side (for curves and sections).

NOTE!

- It is important to adhere to the maintenance intervals as a lack of lubrication will lead to malfunctions due to chain failure or even crash the system, causing considerable property damage.
- Keep a maintenance schedule.
- The running times during the system's set-up and start-up count towards the first maintenance interval.
- If you do not know the running times during the system's set-up and start-up, lubricate the conveyor chain at the start of production.
- Lubricate the chain after downtimes > 6 months (e.g. long assembly time or temporary shutdown).
- Clean excess grease, dirt or other contaminants from the conveyor chain before lubricating. Check the conveyor chain for wear and elongation.



We recommend: the LU 2 automatic lubrication unit optimally and evenly lubricates the drive chain while in operation. See page 45.

10.3.5
Possibilities to lubricate the conveyor chain manually

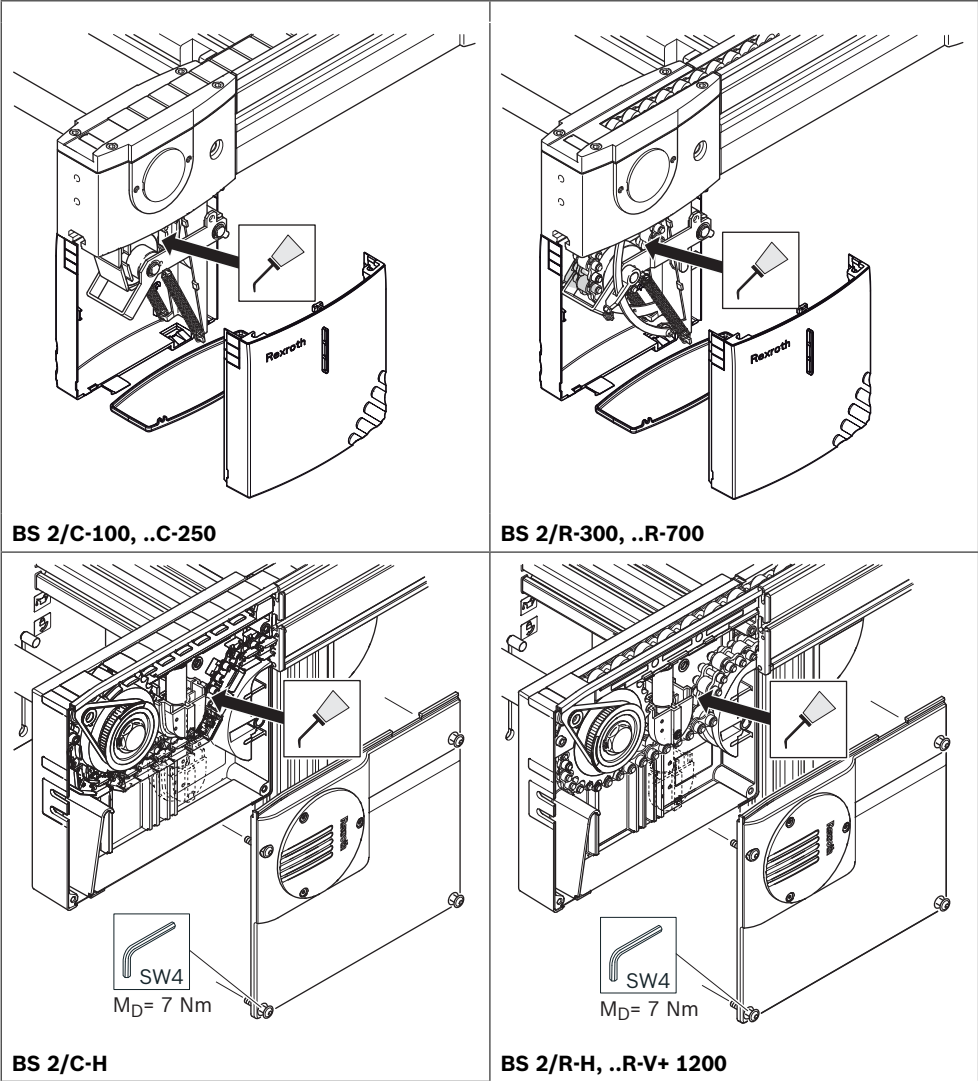


Fig. 23: Greasing the conveyor chain in the drive module

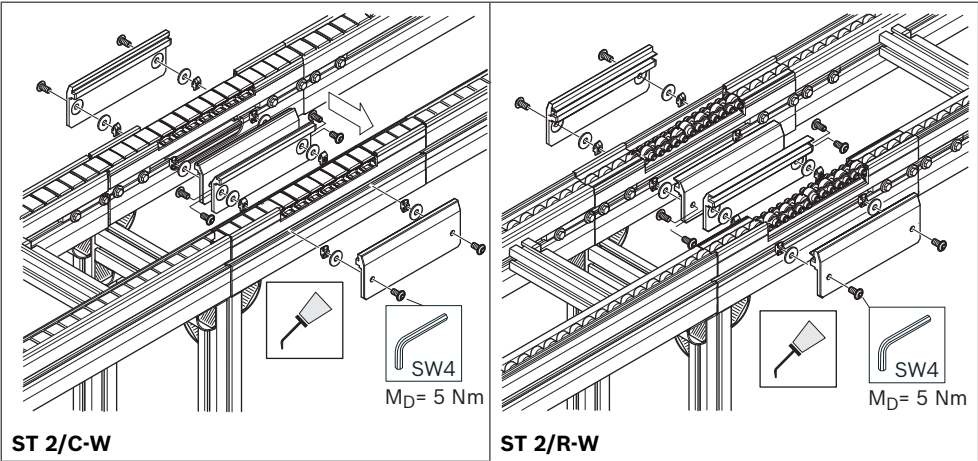


Fig. 24: Greasing the conveyor chain in the maintenance section

10.3.6 LU 2 automatic lubrication unit

The LU 2 automatic lubrication unit allows for lubrication of the chain while in operation. Lubrication of the chain is only possible at the drive module.

The automatic lubrication unit LU 2 consists of the components

- LU 2 lubrication unit, **3 842 543 482**
- LC 2 oil container, **3 842 543 469**
- Adapter set AS 2/C-100, -250, **3 842 543 483 1)**
- Adapter set AS 2/C-400, **3 842 543 484**
- Adapter set AS 2/R-300, -700, **3 842 543 485 1)**
- Adapter set AS 2/R-1200, -2200, **3 842 543 486**
- Adapter set AS 2/R-V-1200, **3 842 543 487**

1) For retrofitting older transfer systems without a lubrication hole, you also need a retrofit kit LU 2, **3 842 546 725**.

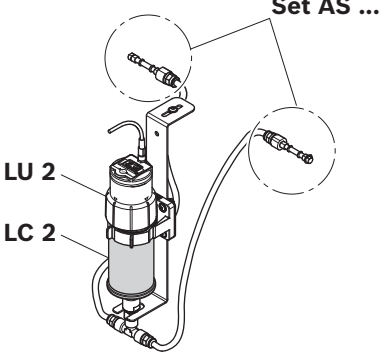
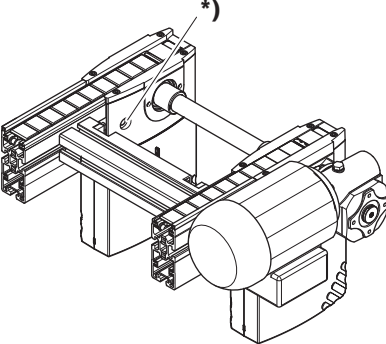
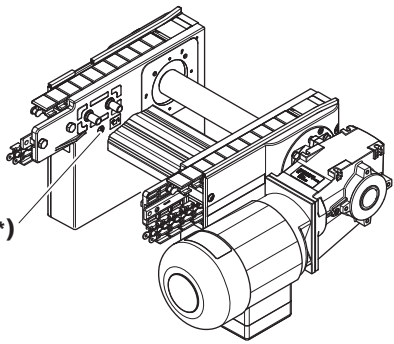
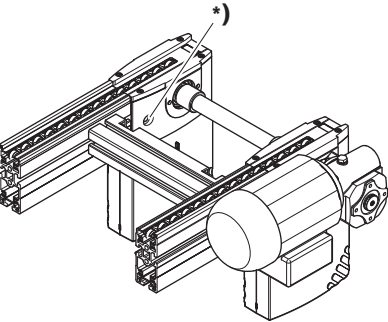
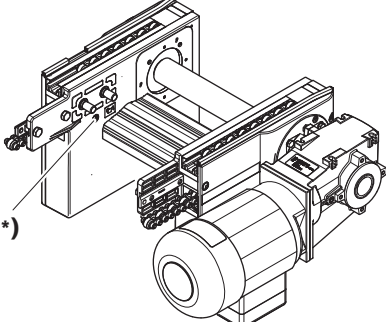
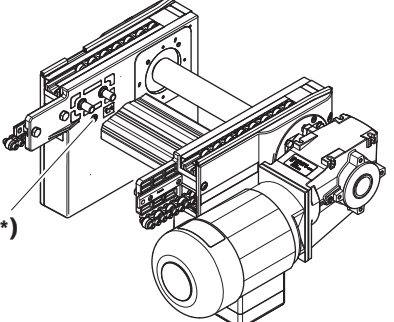
LU 2  3 842 543 482, LU 2 + 3 842 543 469, LC 2	BS 2/C-100, BS 2/C-250  + 3 842 543 483, set AS 2/C-100, -250	BS 2/C-H  + 3 842 543 484, set AS 2/C-400, -700
BS 2/R-300, BS 2/R-700  + 3 842 543 485, set AS 2/R-300, -700	BS 2/R-1200  + 3 842 543 486, set AS 2/R-1200, -2200	BS 2/R-V+ 1200  + 3 842 543 487, set AS 2/R-V

Fig. 25: LU 2 automatic lubrication unit, overview

The holes marked * are used to connect the LU 2 automatic lubrication unit.

10.4 Replacing wear parts

10.4.1 Designations

This document uses the following designations:

Table 8: Designations

Designation	Meaning
Chain	Conveyor chain with conveyor medium: - Flat top chain (.../C-...) - Accumulation roller chain (.../R-...) - Accumulation roller chain <i>Vplus</i> (.../R-V-...)
KT	Chain type accumulation roller chain with ... - PA accumulation rollers (KT = 1) - Steel accumulation rollers (KT = 2) - PA accumulation rollers and small parts protection (KT = 3) - Steel accumulation rollers and small parts protection (KT = 4)

10.4.2 Required tools

- Hex wrench (open-end):
SW8, SW10, SW13, SW19, SW27.
- Hex socket wrench:
SW4.
- Two slotted screwdrivers
- Spirit level
- Combination pliers

10.4.3 Required accessories

- For flat top chain:
 - Disassembly tool: **3 842 010 510**
 - Chain lock: **3 842 535 333**
- For accumulation roller chain:
 - Disassembly tool: **3 842 010 511**
 - Chain lock: **3 842 530 417**
- For accumulation roller chain *Vplus*:
 - Disassembly tool: **3 842 539 357**
 - Chain lock: **3 842 538 872**

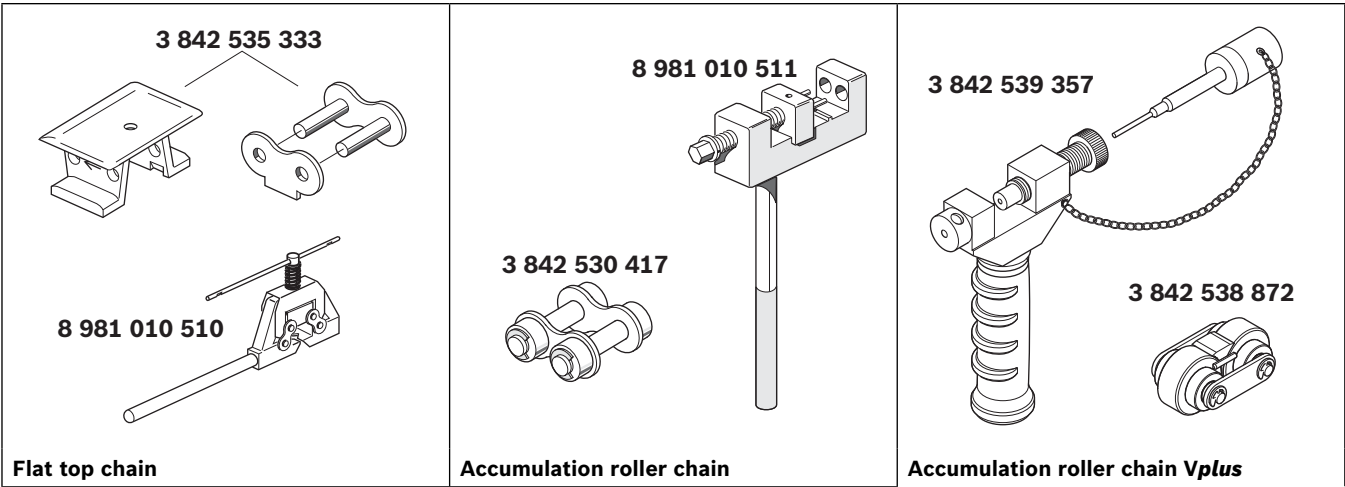


Fig. 26: Required accessories

10.4.4 BS 2/C-100, ...-250, BS 2/R-300, ...-700: Disassembling the protective case

1. Open the latches using two slotted screwdrivers.
2. Remove the front half of the protective case.
3. Remove the drip tray.
4. If necessary, remove the back half of the protective case.

Mount the protective case in reverse order.

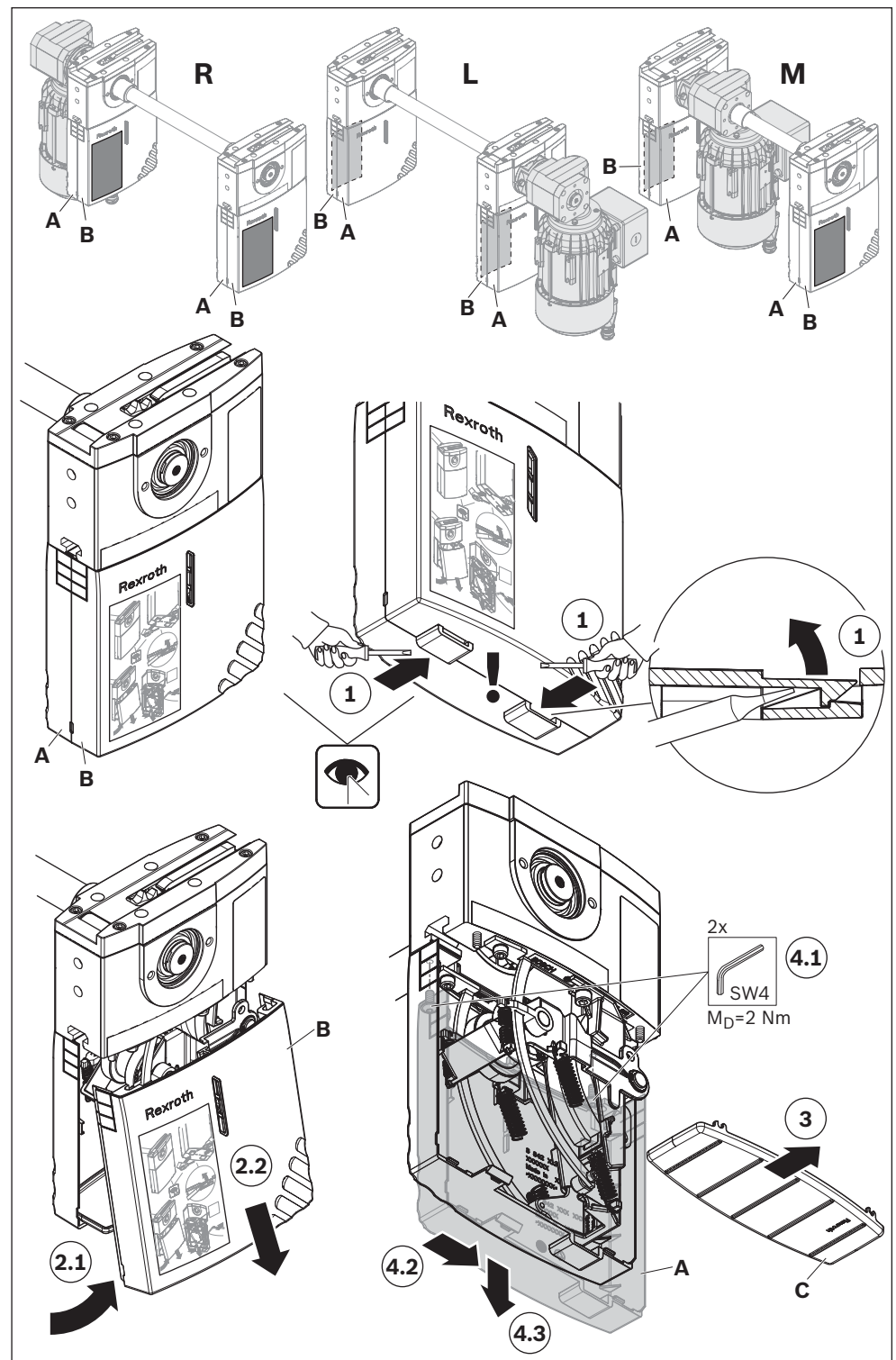


Fig. 27: BS 2/C-100, ...-250, BS 2/R-300, ...-700: Disassembling the protective case



10.4.5 Assembly instructions: Finding a chain lock with an operable chain

CAUTION!

- Observe DIN EN ISO 13857 when you remove or replace safety guards and/or bypass protective equipment.
- Test runs with open paneling should only be performed by a person with appropriate knowledge and experience using tip switches, and if there is no possibility of interference from other switching devices.

On the side without motor, either remove the outer protective case half (BS 2/C-100, ...-250, BS 2/R-300, ...-700, BS 4/R-300, ...-700) or remove the side cover plate (BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200).

5. Start the belt section with the jog switch until the chain lock appears on the chain tensioner.

You recognize the chain lock:

- of the flat top chain by the gray flat chain with hole  1).
- of the accumulation roller chain by the galvanized tab  2).

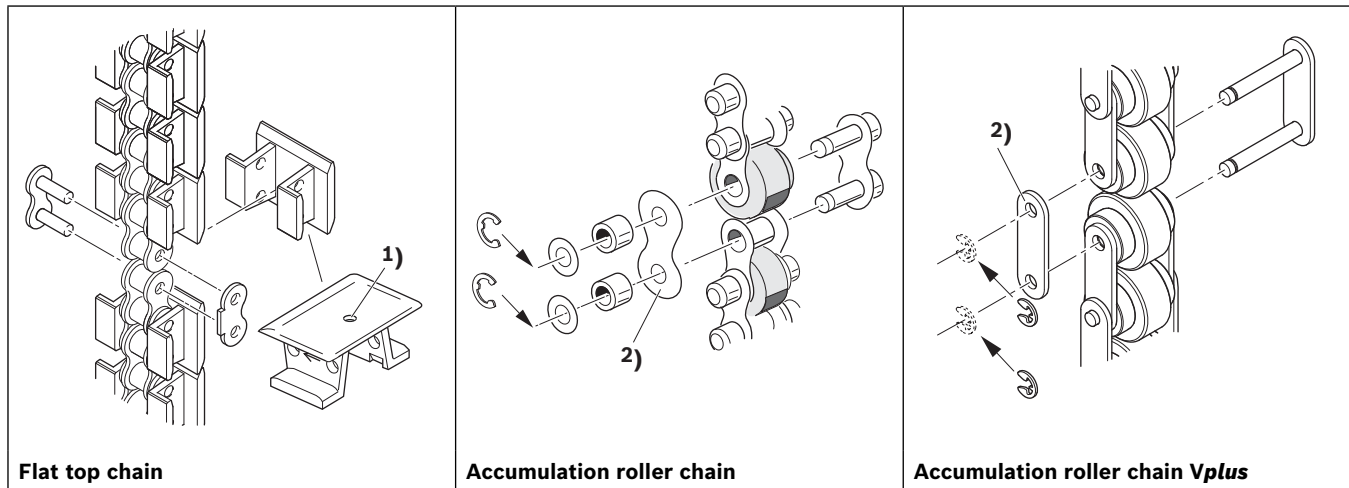


Fig. 28: Chain lock



10.4.6 Assembly instructions: Fixing the chain tensioner at BS 2/C-100, ...-250, BS 2/R-300, ...-700

BS 2/C..., BS 2/R...:

- Pull the chain tensioner up and fix it in its end position with a pin or screwdriver.

BS 2/R..., reversible:

- Unlock the chain tensioner by lifting the "latch" (☞ Fig. 28). Pull the chain tensioner up and fix it in its end position with a pin or screwdriver.

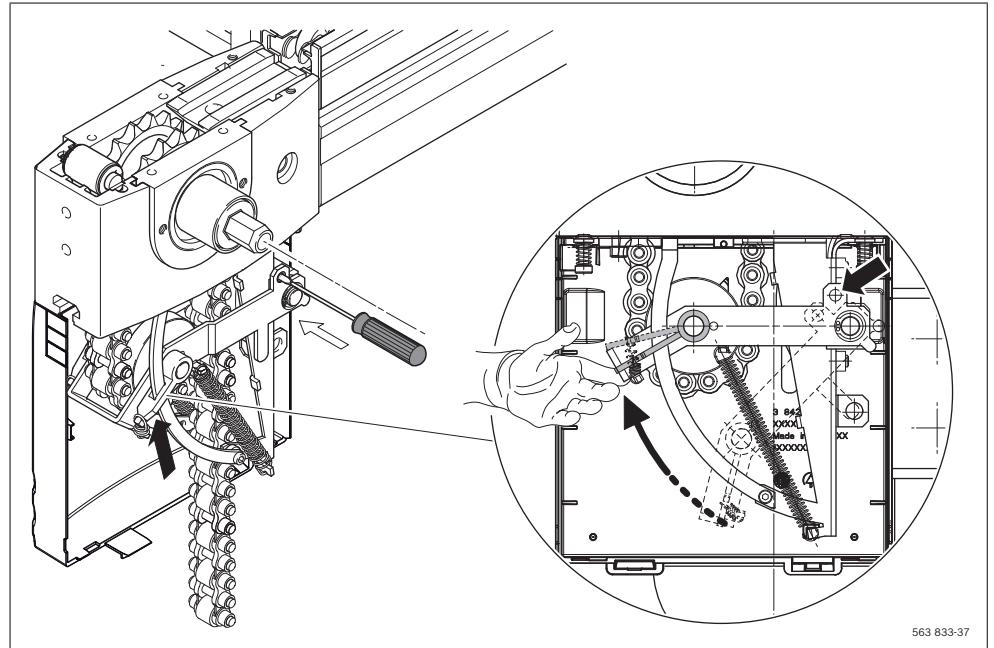


Fig. 29: Fixing the chain tensioner: "small" drive head, chain tensioner reversible



10.4.7 Assembly instructions: Fixing the chain tensioner at BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200

- Pull the chain tensioner (X) up and fix it in its end position by turning it 90° clockwise. (☞ Fig. 29, item 2).
- Loosen the chain tensioner by turning it 90° counterclockwise. (☞ Fig. 29, item 3).

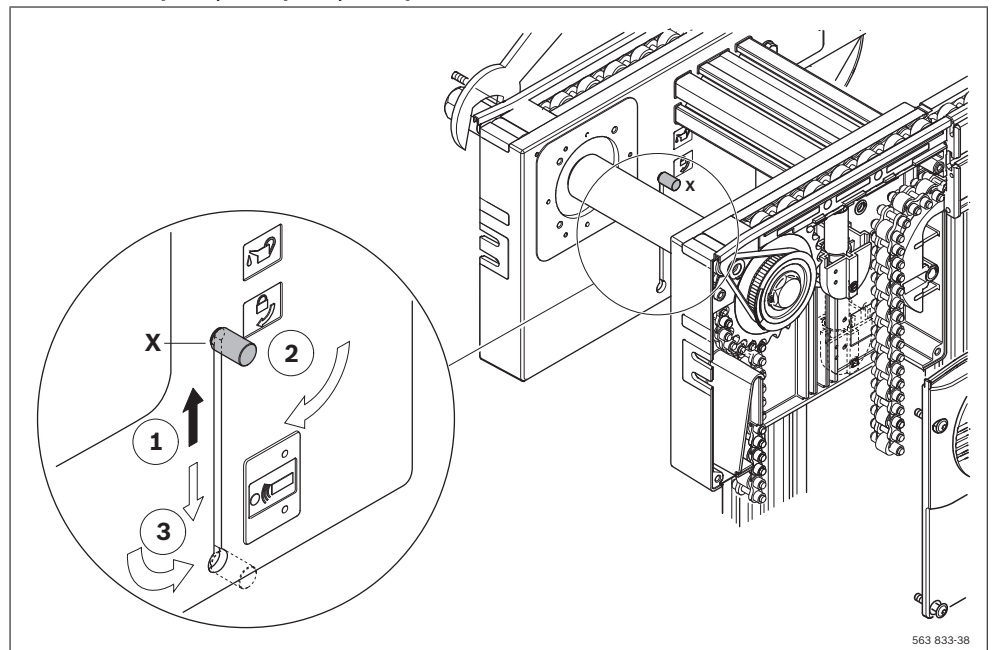


Fig. 30: Fixing the chain tensioner: "large" drive head



10.4.8 Detecting the chain length at BS 2/C-100, ...-250, BS 2/R-300, ...-700

You can see the elongation of the chain through the slot (A) in the protective case. The lever (B) of the chain tensioner moves from the top (new/shortened chain) downwards (elongated chain) as the chain length increases. If the lever is no longer visible in the slot, the chain must be shortened. Replace the chain if the permissible elongation of the chain (= 3% of the original length) is exceeded.

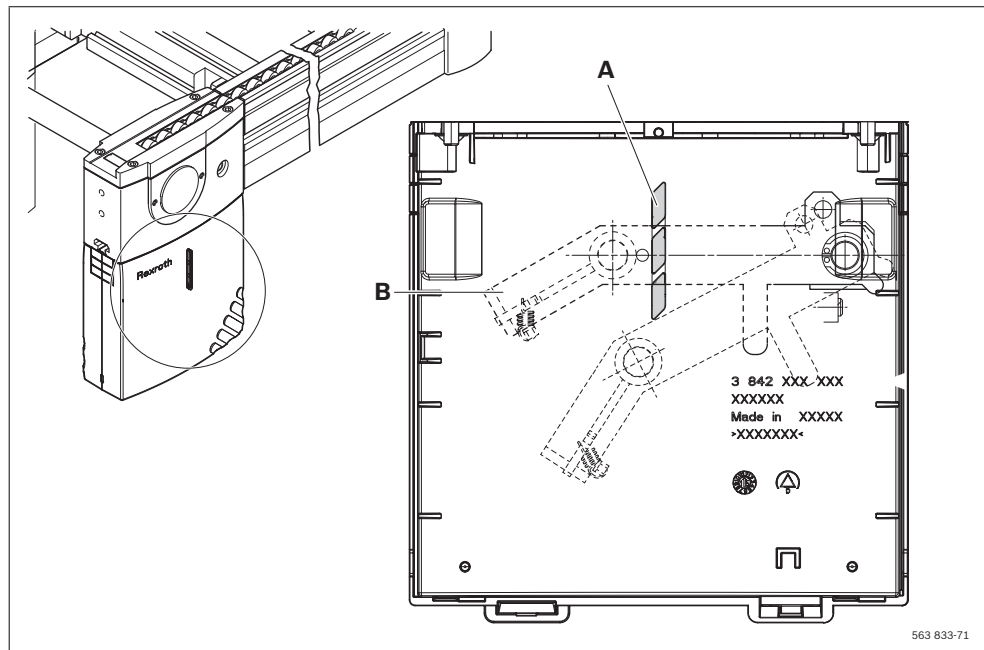


Fig. 31: Detecting chain length with the "small" drive head



10.4.9 Detecting the chain length at BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200

You can see the length of the chain at the level of the tensioning lever (X) of the chain tensioner. The tensioning lever (X) moves from the top (new/shortened chain) downwards (elongated chain) as the chain length increases. When the tensioning lever (X) is in the lowest position, the chain must be shortened. Replace the chain if the permissible elongation of the chain (= 3% of the original length) is exceeded.

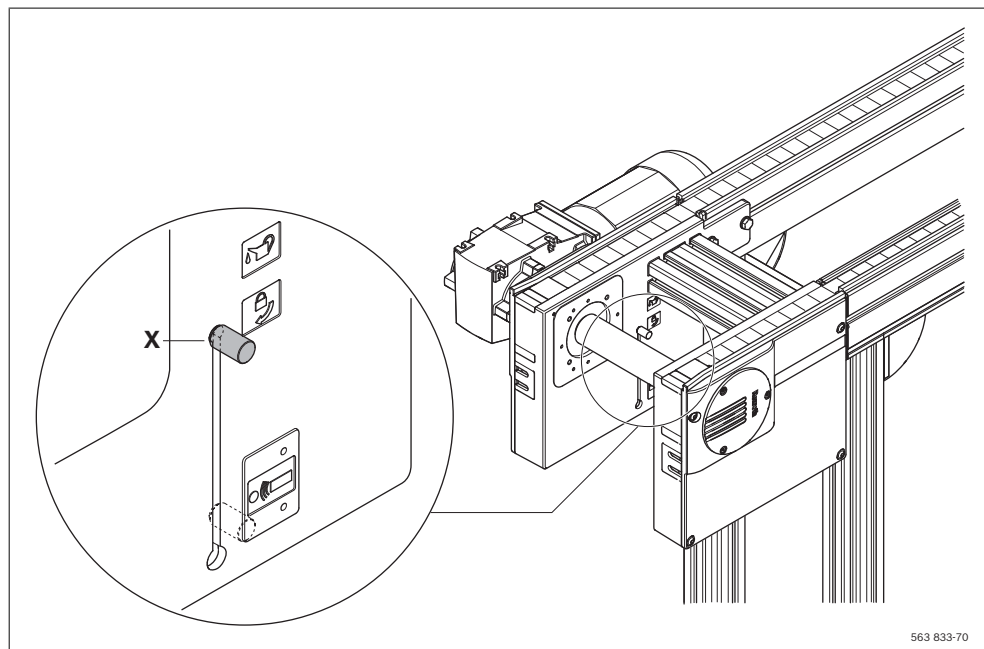


Fig. 32: Detecting the chain length with the "large" drive head

10.4.10 Shortening the conveyor chain: BS 2/C-100, ...-250, BS 2/R-300, ...-700, motor mounting (MA) = R/L



Please note:

Perform the steps on both sides in parallel.

1. Remove the gear motor.
2. Disassemble the outer protective case halves.
3. Using a wrench, turn the drive shaft in the conveying direction until the chain lock appears on the chain tensioner.



You recognize the chain lock:

- of the flat top chain by the gray flat chain with hole (1).
- of the accumulation roller chain by the galvanized tab (2).

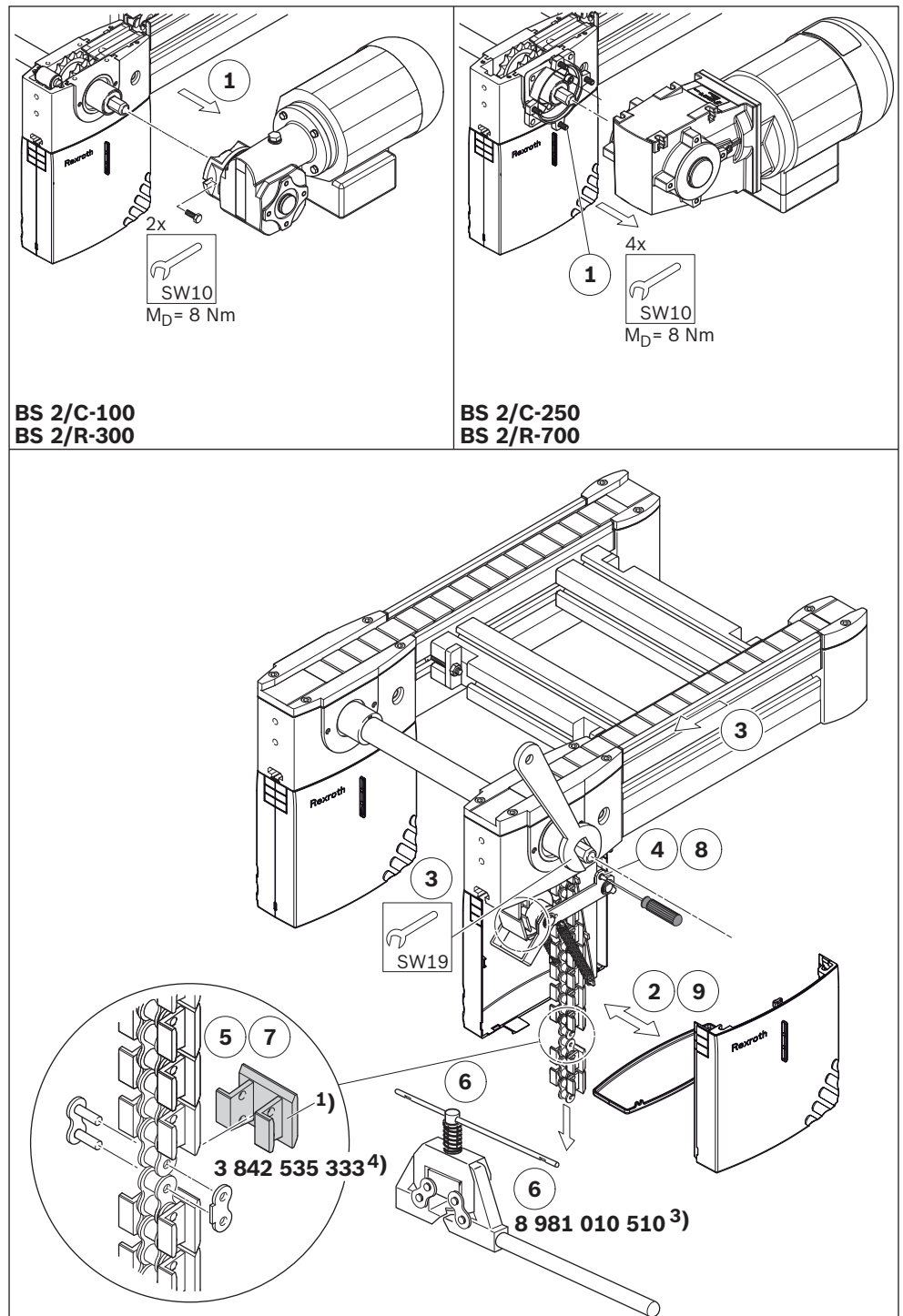


Fig. 33: Shortening the conveyor chain BS 2/C-100, ...-250, BS 2/R-300, ...-700, MA = R/L (1/2)

4. Fix the chain tensioner.
5. Open the chain at the chain lock.
6. With the disassembly tool ³⁾, remove so many chain links that you can close the chain as closely at the tensioning wheel as possible.

3) Disassembly tool:

- for flat top chain:
3 842 010 510
- for accumulation roller chain:
3 842 010 511

4) Chain lock:

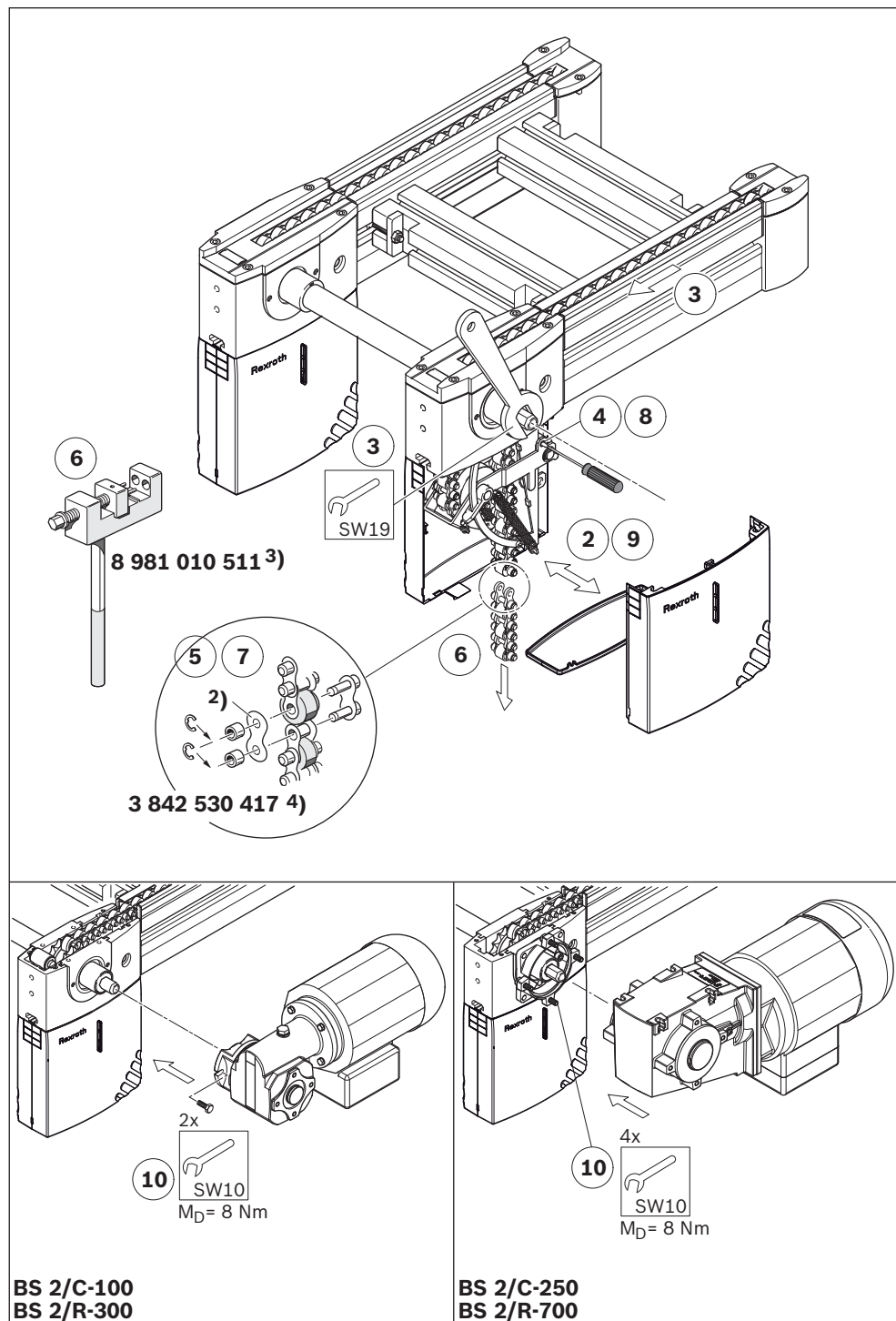
- for flat top chain:
3 842 535 333
- for accumulation roller chain:
3 842 530 417



Please note:

- Remove the same number of chain links for both chains.
- Note in the maintenance plan how many chain links you have removed.
- Replace the chain if the permissible elongation of the chain (= 3% of the original length) is exceeded.

7. Close the chain.
8. Release the mount of the chain tensioner. Check the tension of the chain.
9. Mount the outer halves of the protective case.
10. Install the gear motor.



563 833-42

Fig. 34: Shortening the conveyor chain BS 2/C-100, ...-250, BS 2/R-300, ...-700, MA = R/L (2/2)

10.4.11 Shortening the conveyor chain: BS 2/C-100, BS 2/R-300, motor mounting (MA) = M



Please note:

- You need an additional chain lock **4**) per chain.
- 4) Chain lock:
 - for flat top chain: **3 842 535 333**
 - for accumulation roller chain: **3 842 530 417**
- Perform the steps on both sides in parallel.
- 1. Disassemble the outer protective case halves.
- 2. Fix the chain tensioner.
- 3. Open the chain with the disassembly tool **3**).
- 3) Disassembly tool:
 - for flat top chain: **3 842 010 510**
 - for accumulation roller chain: **3 842 010 511**

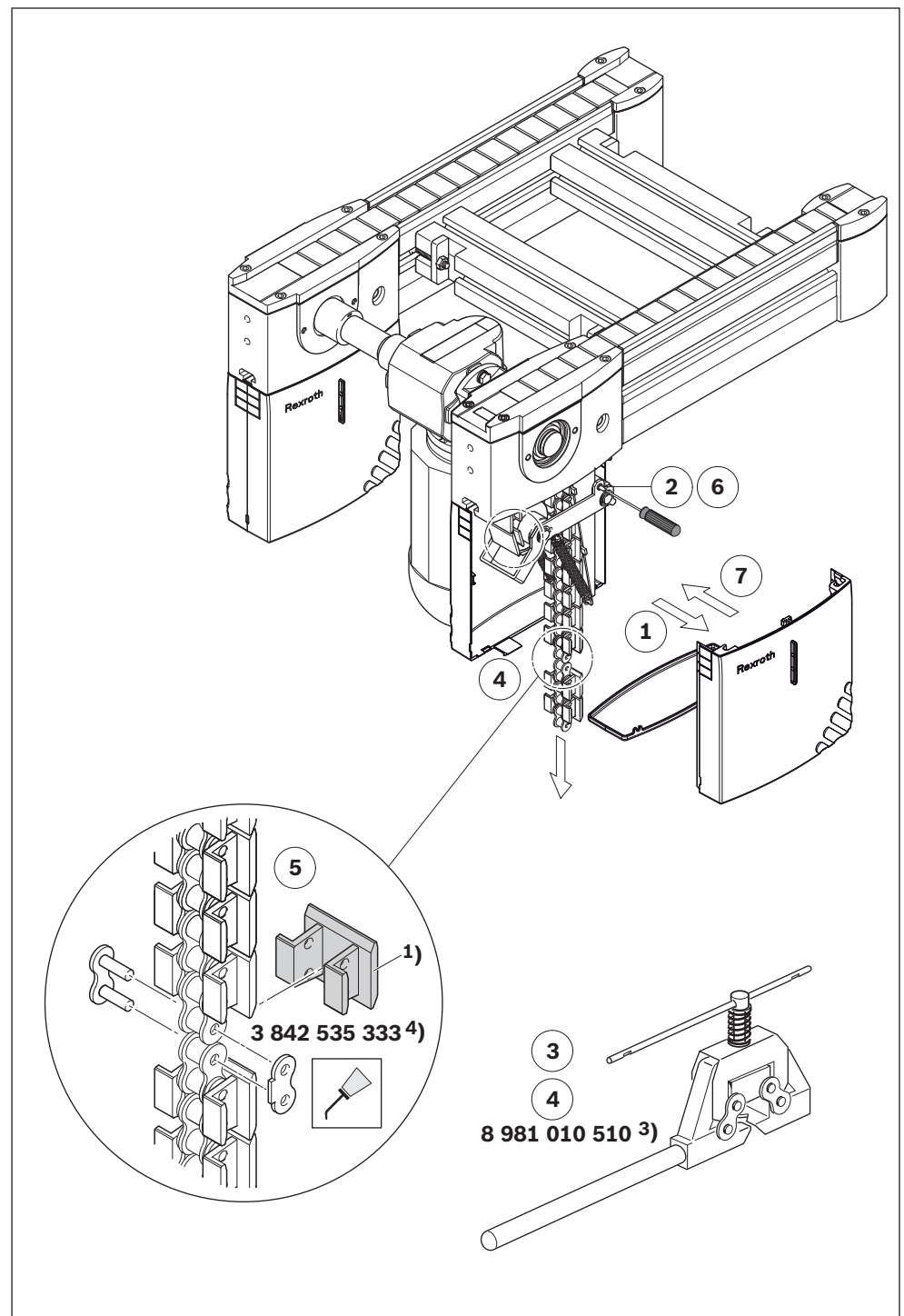


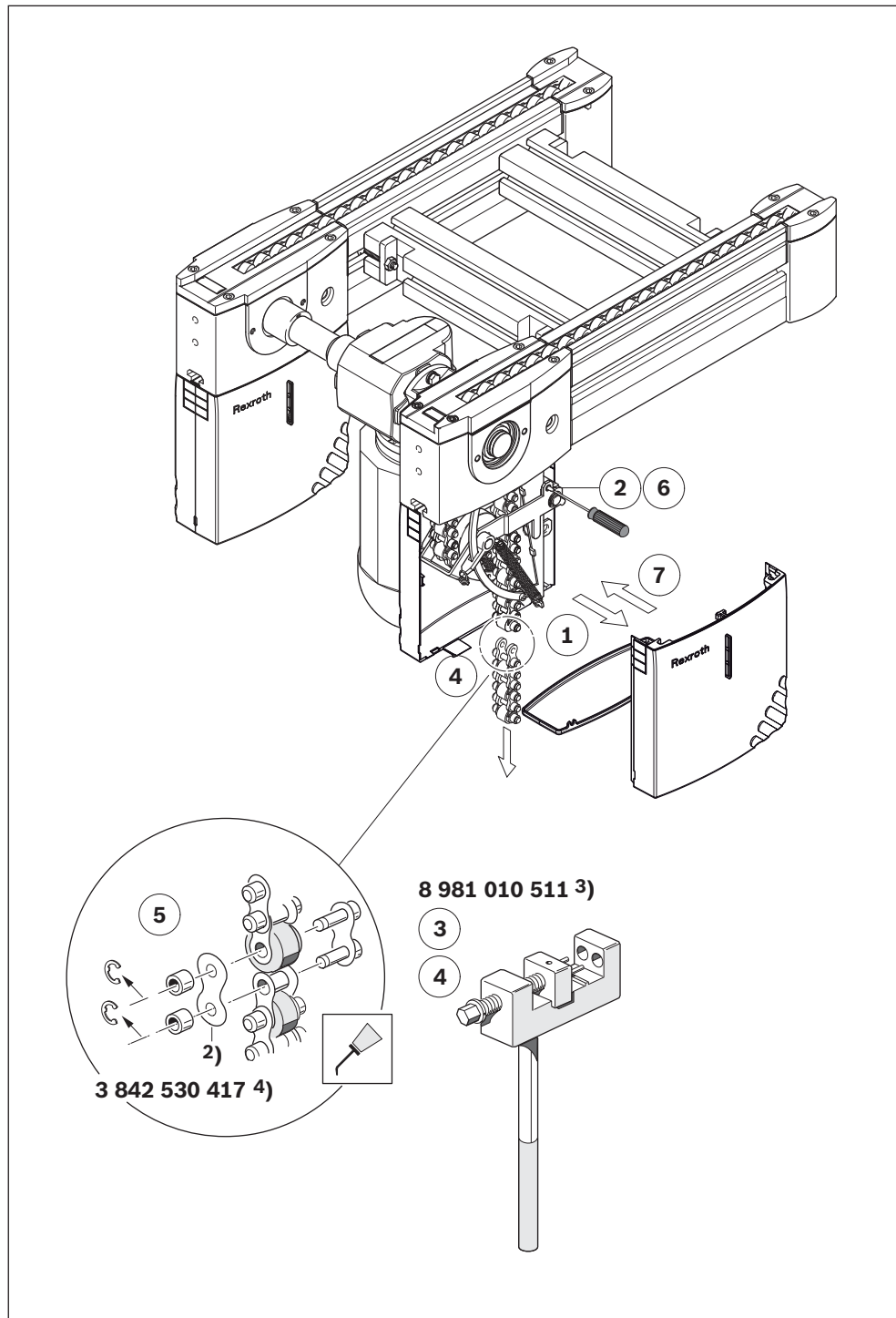
Fig. 35: Shortening the conveyor chain BS 2/C-100, BS 2/R-300, MA = M (1/2)

563 833-43

4. With the disassembly tool, remove so many chain links that you can close the chain as closely at the tensioning wheel as possible.

**Please note:**

- Remove the same number of chain links for both chains.
 - Note in the maintenance plan how many chain links you have removed.
 - Replace the chain if the permissible elongation of the chain (= 3% of the original length) is exceeded.
5. Grease the new chain lock and close the chain.
6. Loosen the mount of the chain tensioner. Check the tension of the chain.
7. Mount the outer halves of the protective case.



563 833-44

Fig. 36: Shortening the conveyor chain BS 2/C-100, BS 2/R-300, MA = M (2/2)

10.4.13 Shortening the conveyor chain: BS 2/R-H, BS 2/R-V+ 1200, reversible, motor mounting (MA) = R/L



Please note:

Perform the steps on both sides in parallel.

1. Remove the gear motor.
2. Remove the side cover plates, remove the bottom cover sheets.
3. Disassemble the outer protective case halves.
4. Using a wrench, turn the drive shaft in the conveying direction until the chain lock appears on the chain tensioner of the return unit.



You recognize the chain lock 4):

- of the accumulation roller chain by the galvanized tab (3).

5. Secure the chain tensioners at drive and return unit.
 6. Open the chain at the chain lock 4).
- 3) Disassembly tool:
- for accumulation roller chain: **3 842 010 511**
 - for accumulation roller chain *Vplus*: **3 842 539 537**
- 4) Chain lock:
- for accumulation roller chain: **3 842 530 417**
 - for accumulation roller chain *Vplus*: **3 842 538 872**

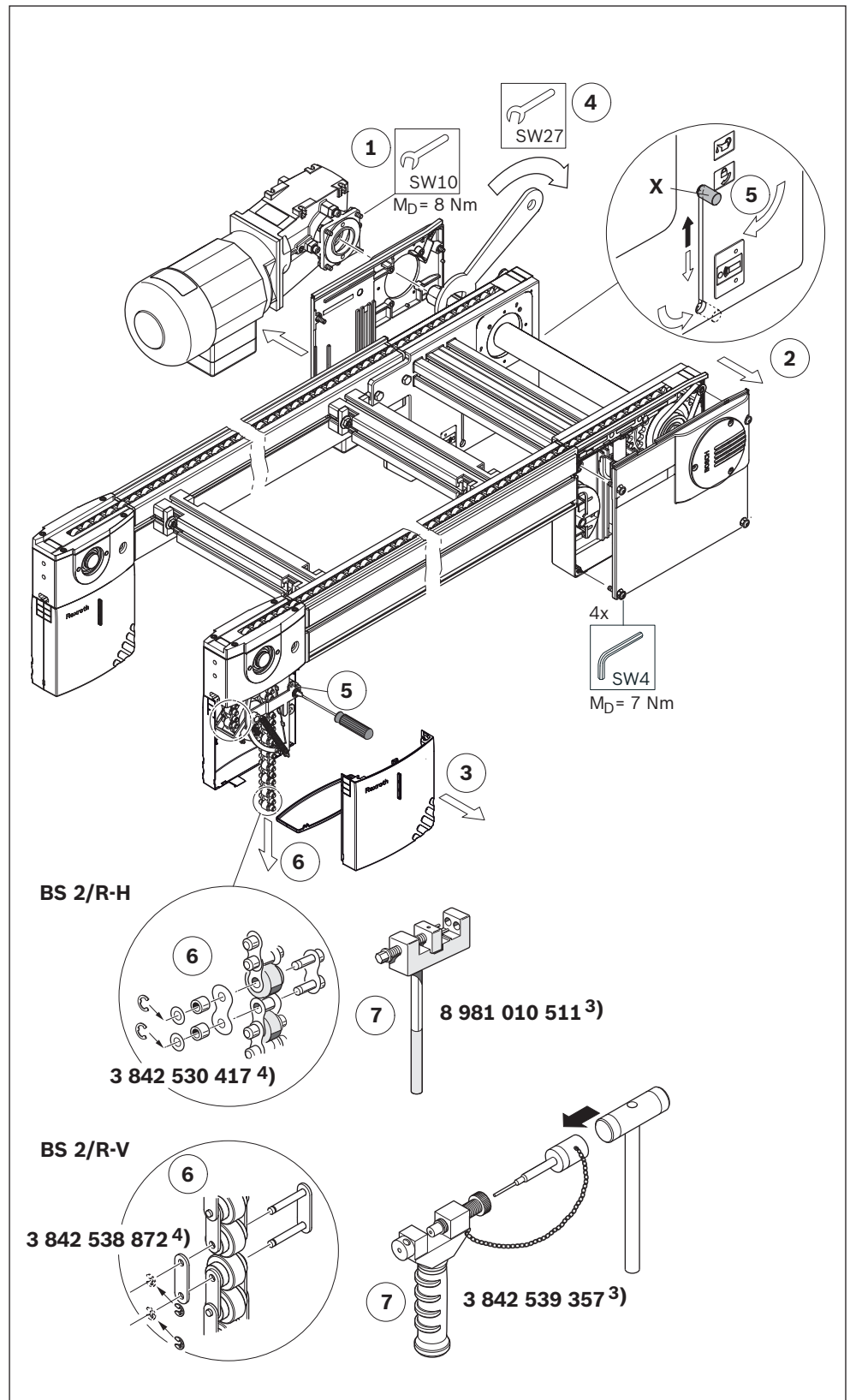


Fig. 39: Shortening the conveyor chain BS 2/R-H, BS 2/R-V+ 1200, reversible (1/2)

7. With the disassembly tool ³⁾, remove so many chain links that you can close the chain as closely at the tensioning wheel as possible.

³⁾ Disassembly tool:

- for accumulation roller chain: **3 842 010 511**
- for accumulation roller chain *Vplus*: **3 842 539 537**

⁴⁾ Chain lock:

- for accumulation roller chain: **3 842 530 417**
- for accumulation roller chain *Vplus*: **3 842 538 872**



Please note:

- Remove the same number of chain links for both chains.
- Note in the maintenance plan how many chain links you have removed.
- Replace the chain if the permissible elongation of the chain (= 3% of the original length) is exceeded.

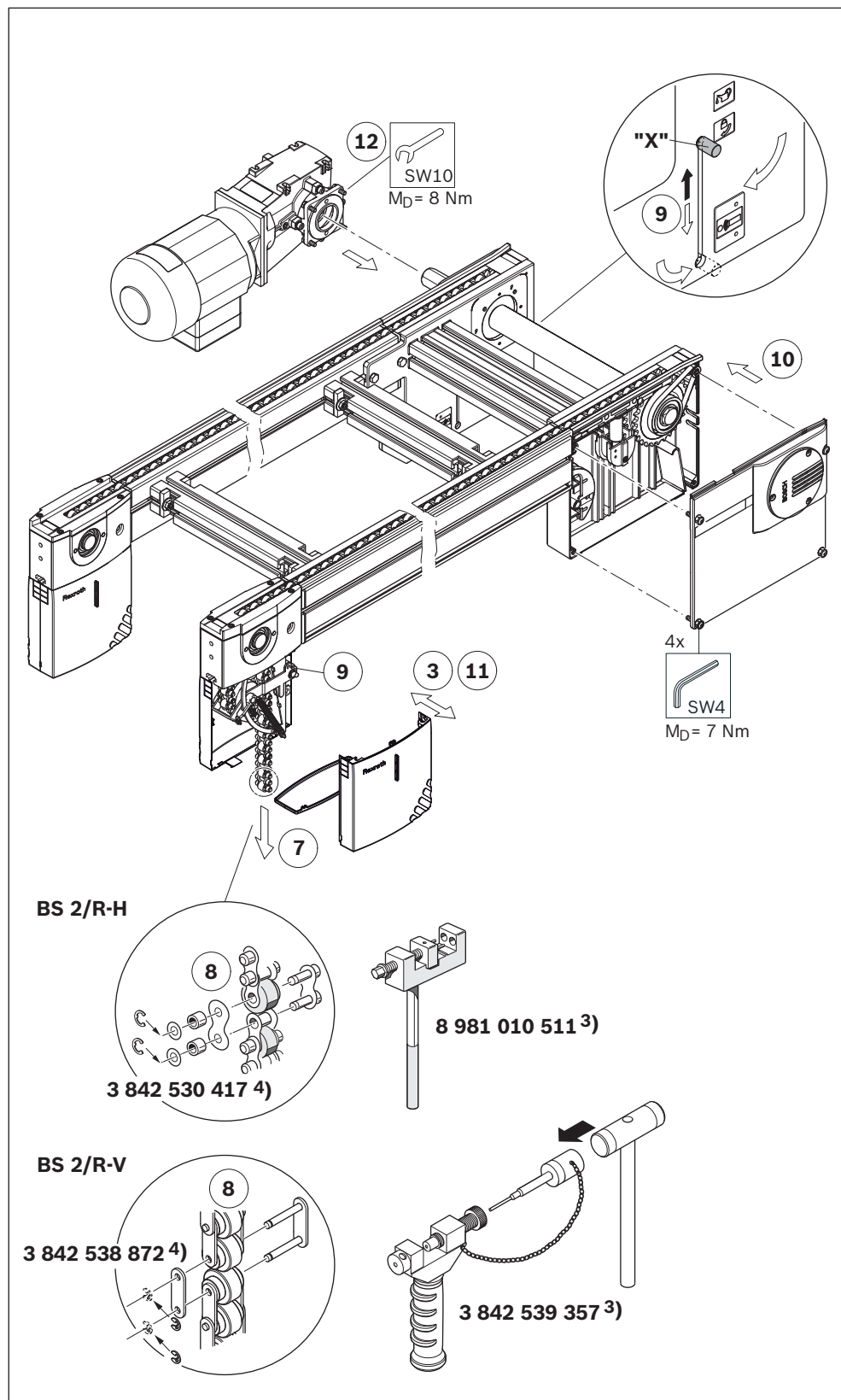
8. Close the chain.

9. Loosen the chain tensioners.
Check the tension of the chain.

10. Install the lower cover sheets and the side cover plates.

11. Mount the outer halves of the protective case.

12. Install the gear motor.



563 833-59

Fig. 40: Shortening the conveyor chain BS 2/R-H, BS 2/R-V+ 1200, reversible (2/2)



10.4.14 Assembly instructions: Changing chain and wear parts

NOTE!

- Before the assembly of the new chain, clean the chain guides from excess fat, dirt or other impurities. Check the chain wheels **1)**, the glide profiles, the guide pieces **2)** in the drive and return unit, the chain tensioners **3)**, the connection belt roller **4)** and the associated toothed belt for wear. Replace the worn parts.

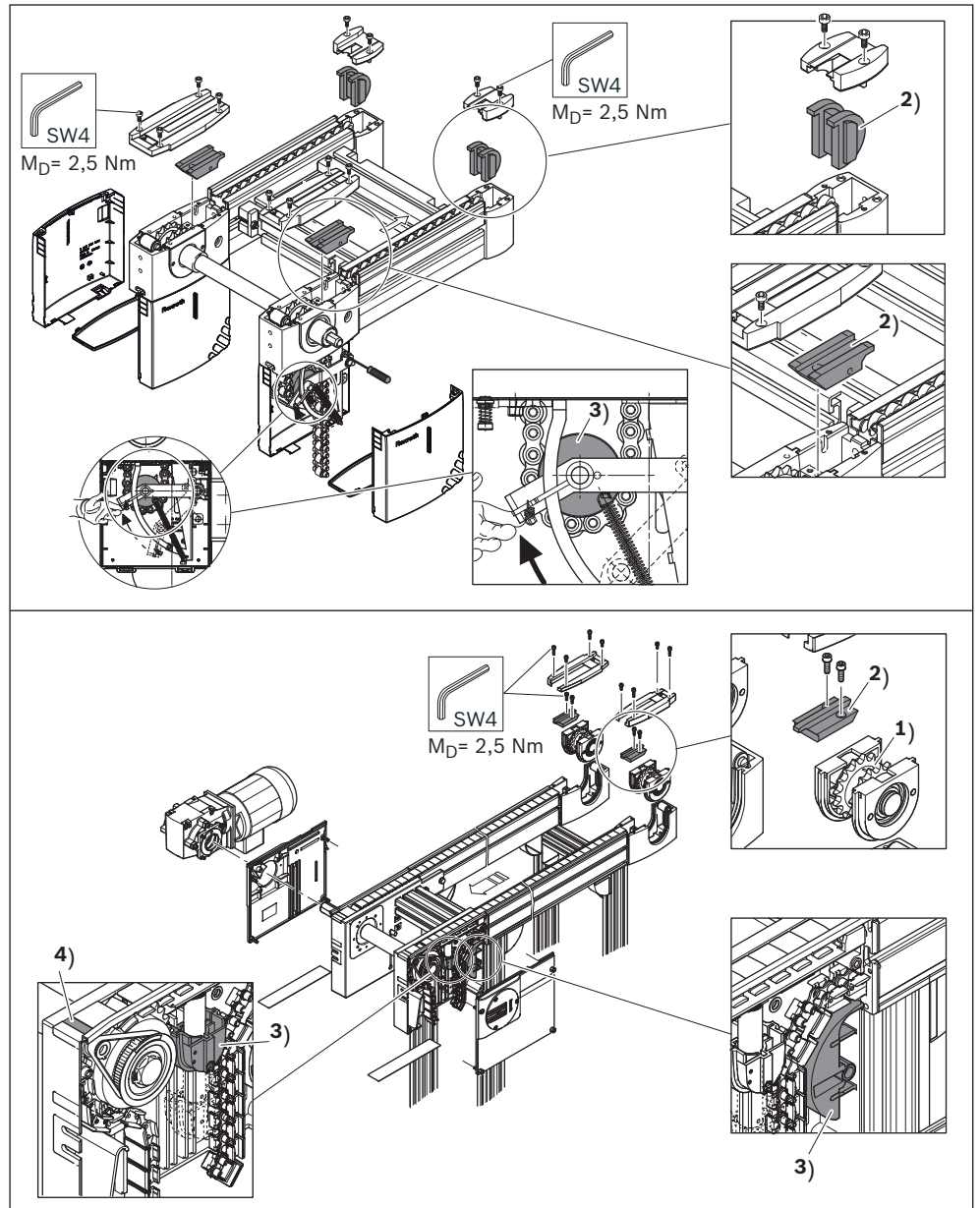


Fig. 41: Wear parts

563 833-63

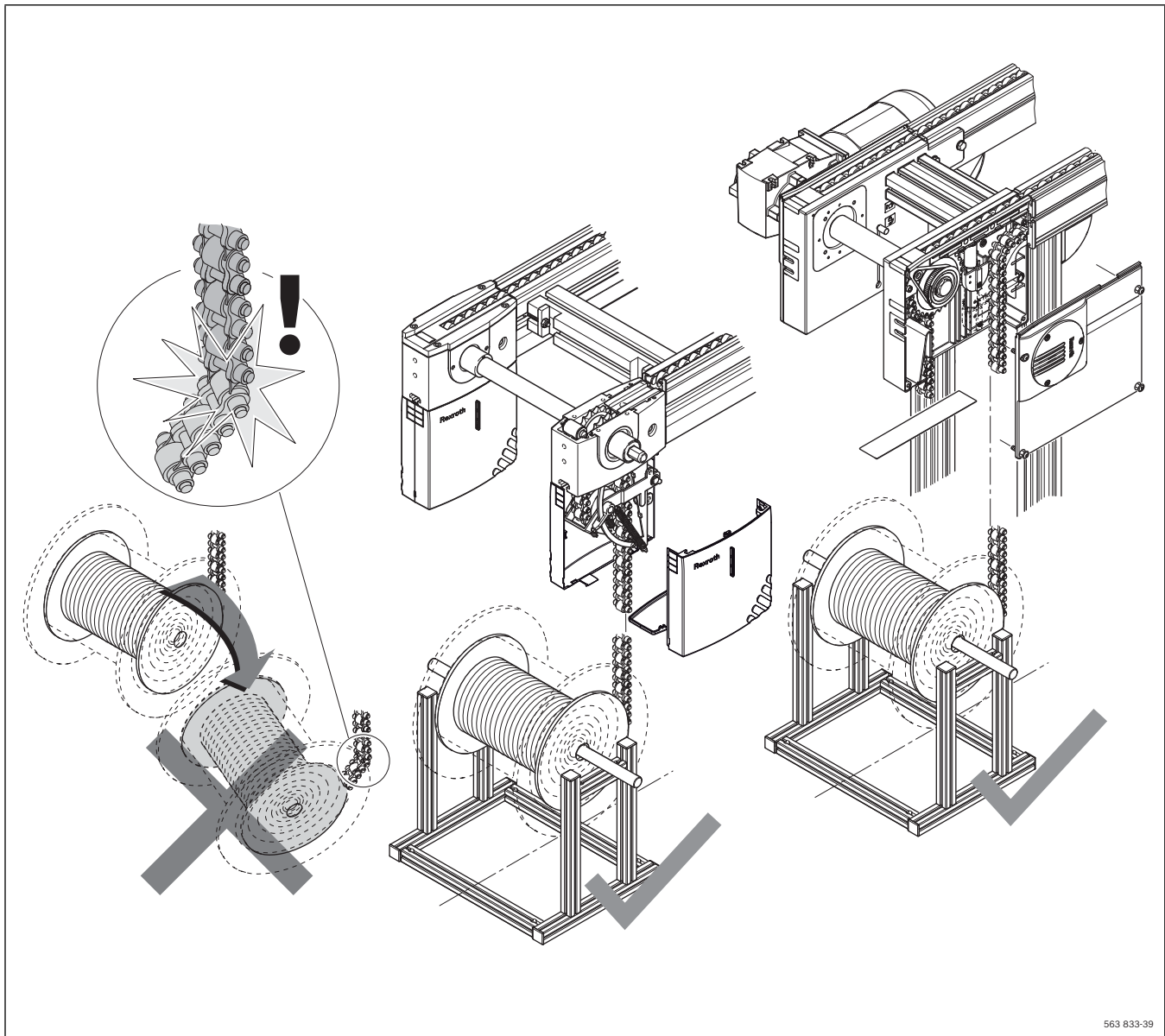
We recommend:

- When replacing the flat top chain, always replace the glide profiles as well.

NOTICE

Failure of the conveyor chain (flat top chain / accumulation roller chain)

- ▶ Deformations such as bending and/or twisting of the chain, e.g., by tilting the chain reel during installation, can result in conveyor chain failure and even crashing. There is a risk of damage to property.
- ▶ Make sure the chain remains straight and can leave the chain reel smoothly during installation.
- ▶ Make sure the chain reel cannot tilt during installation.
- ▶ If the chain reel does tilt during installation and the chain is deformed: Use the disassembly tool to remove the affected area, with a generous margin on either end.



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Fig. 42: Unwinding of the chain from the chain reel

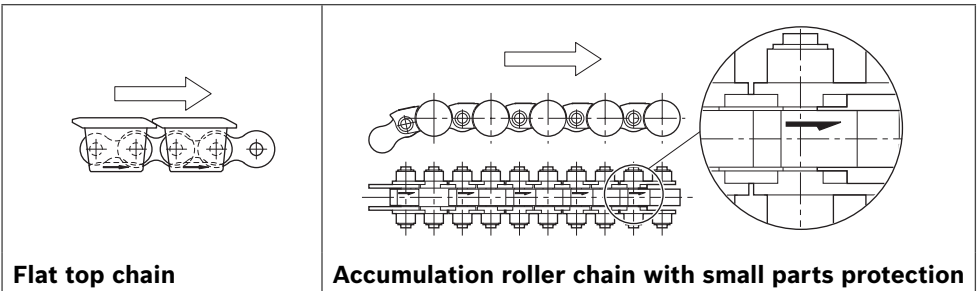


10.4.15 Assembly instructions: Running direction of chain

NOTICE

Failure of the conveyor chain (flat top chain / accumulation roller chain with small parts protection)

- ▶ Operating the chain against its running direction can result in conveyor chain failure or even crashing. There is a risk of damage to property.
- ▶ Make sure the chain is installed in the proper running direction.



Flat top chain

Accumulation roller chain with small parts protection

Fig. 43: Running direction of chain

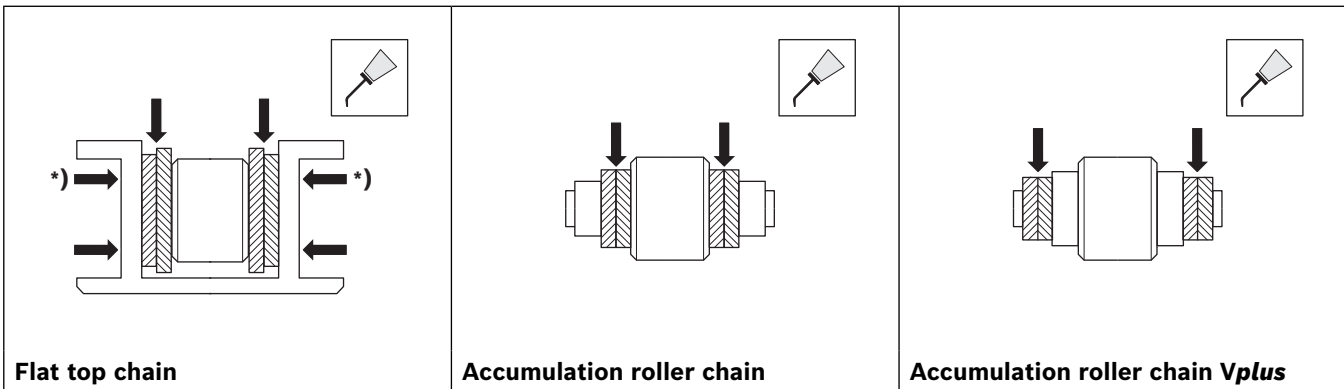


10.4.16 Assembly instructions: Lubricating points

NOTICE

Failure of the conveyor chain (flat top chain / accumulation roller chain)

- ▶ Inadequate lubrication of the conveyor chain can result in conveyor chain failure or even crashing. There is a risk of damage to property.
- ▶ The conveyor chain used in this product comes lubricated.
- ▶ Lubricate the conveyor chain before the commissioning with Structovis GHD 0 842 904 229, using 1–2 g oil/m of chain, then every 1,000 hrs with 2–3 g oil/m of chain.



Flat top chain

Accumulation roller chain

Accumulation roller chain Vplus

Fig. 44: Lubricating points

*) Also lubricate the sides of the flat top chain (curve + section)
Due to the system, the lubricant may be discharged.

10.4.17 Changing the conveyor chain: BS 2/C-100, ...-250, BS 2/R-300, ...-700, motor mounting (MA) = R/L



Please note:

Perform the steps on both sides in parallel.

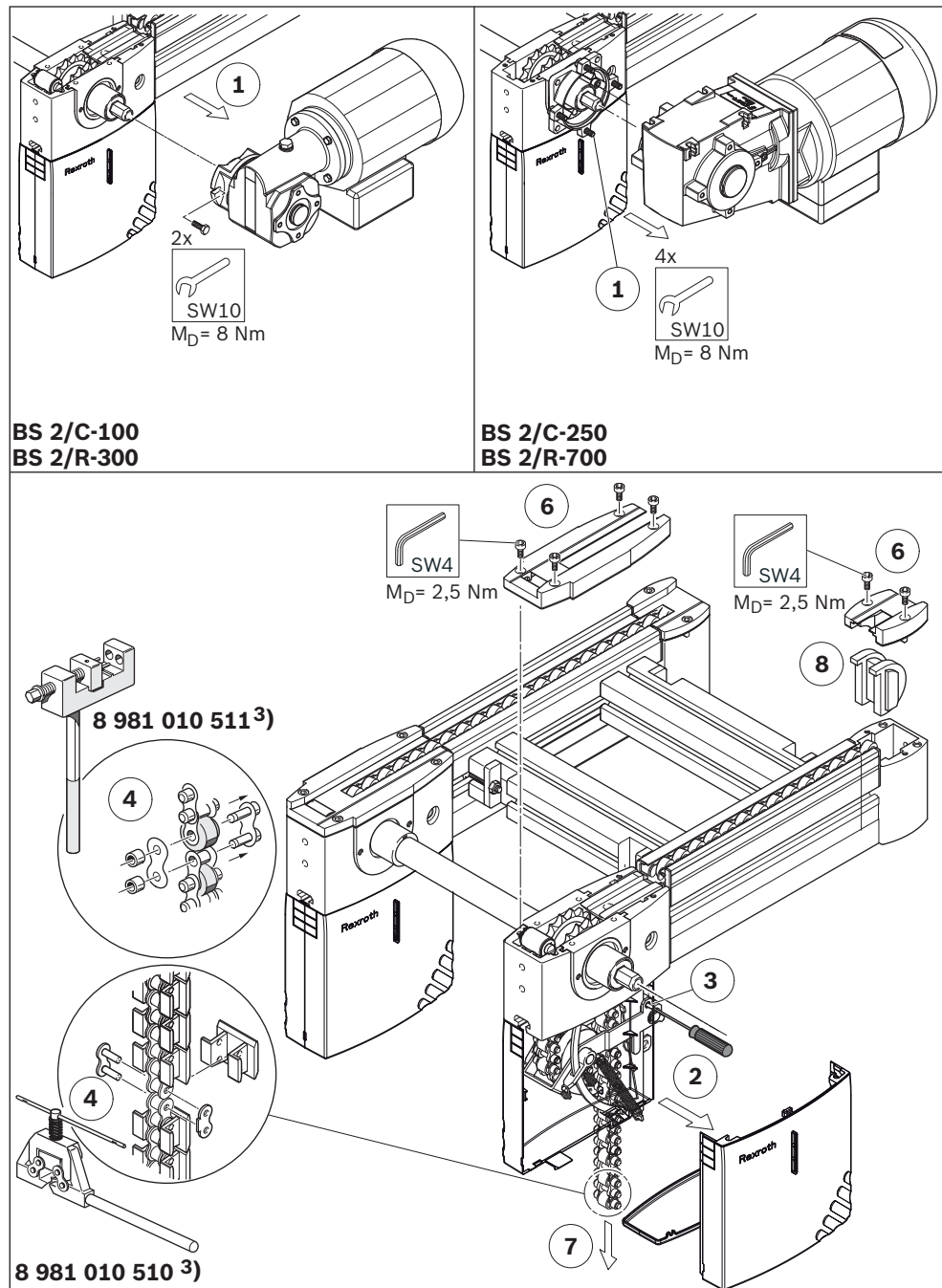
Disassembling the chain:

1. Remove the gear motor.
 2. Disassemble the outer protective case halves.
 3. Fix the chain tensioner.
 4. Open the chain with the disassembly tool 3).
- 3) Disassembly tool:
- for flat top chain:
3 842 010 510
 - for accumulation roller chain:
3 842 010 511

5. Remove the drive and return head covers.
6. Pull the used chain down from the BS 2/....
7. Remove the sliding piece from the return head.

Assembling the chain:

8. Drag the new chain 5) to the return head with a pull-in aid.
- 5) **BS 2/C..., BS 2/R...:**
Observe the running direction of the chain
☞ Fig. 42, page 61.



563 833-47

Fig. 45: Changing the conveyor chain BS 2/C-100, ...-250, BS 2/R-300, ...-700, MA = R/L (1/2)

9. Hold the end of the chain vertically and insert the sliding piece into the return head.
10. Drag the chain in the top guide profile to the drive head.
11. Place the chain on the drive wheel.
12. Rotate the drive wheels in the conveying direction until the chain appears on the chain tensioner.
13. Install the drive and return head covers.
14. Use the disassembly tool to remove so many excessive chain links that you can close the chain as closely as possible to the tensioning wheel.
15. Grease the new chain lock ⁴⁾ and close the chain.
- 4) Chain lock:
 - for accumulation roller chain: **3 842 530 417**
16. Loosen the mount of the chain tensioner. Check the tension of the chain.
17. Mount the outer halves of the protective case.
18. Install the gear motor.

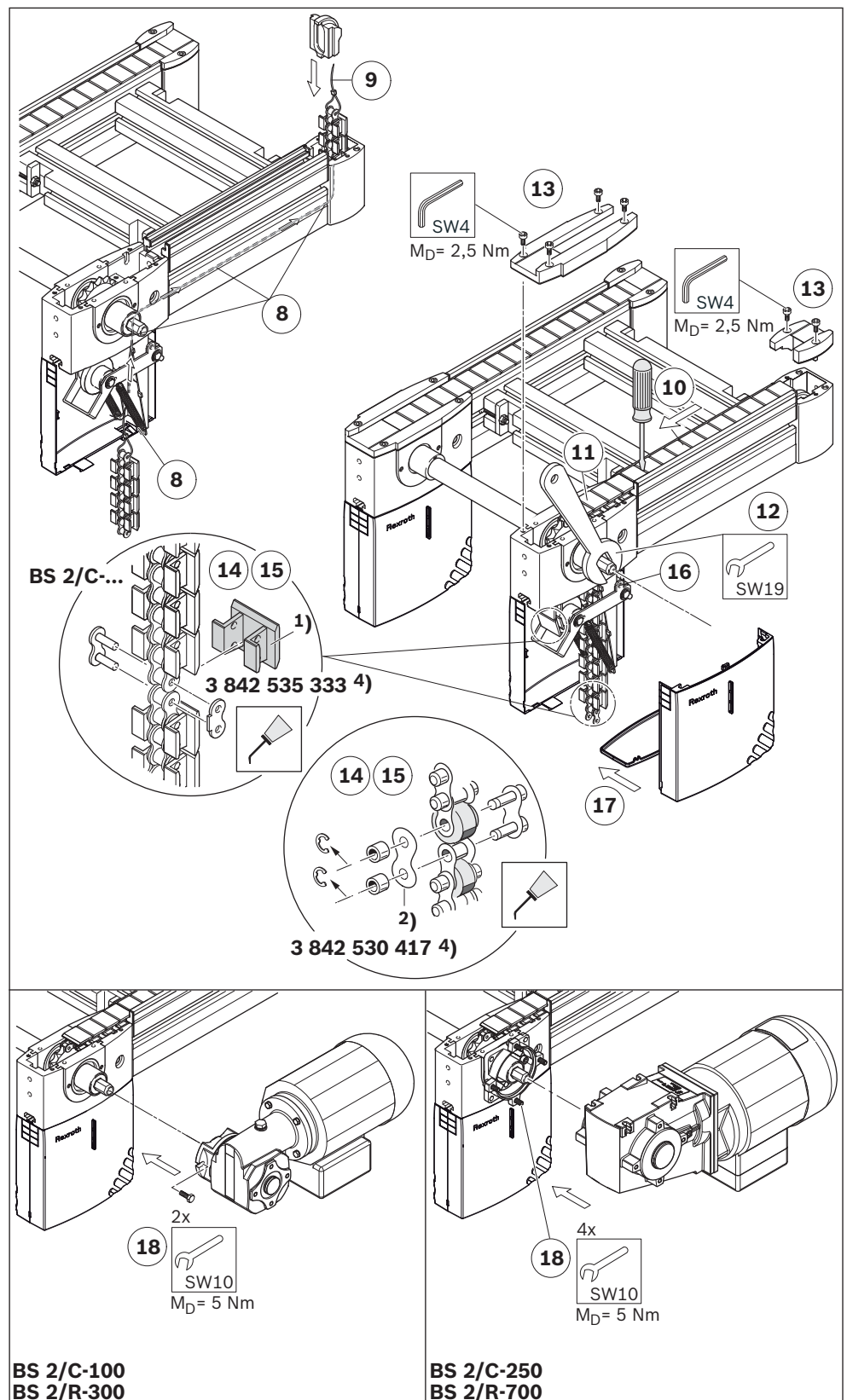


Fig. 46: Changing the conveyor chain BS 2/C-100, ...-250, BS 2/R-300, ...-700, MA = R/L (2/2)

10.4.18 Changing the conveyor chain: BS 2/C-100, BS 2/R-300, motor mounting (MA) = M



Please note:

Perform the steps on both sides in parallel.

Disassembling the chain:

1. Disassemble the outer protective case halves.
2. Fix the chain tensioner.
3. Open the chain with the disassembly tool 3).

3) Disassembly tool:

- for flat top chain: **3 842 010 510**
- for accumulation roller chain: **3 842 010 511**

4. Remove the drive and return head covers.
5. Pull the chain back until the drive head is exposed.
6. Remove the sliding piece.
7. Remove the drive train.
8. Pull the used chain down from the BS 2....
9. Remove the sliding piece from the return head.

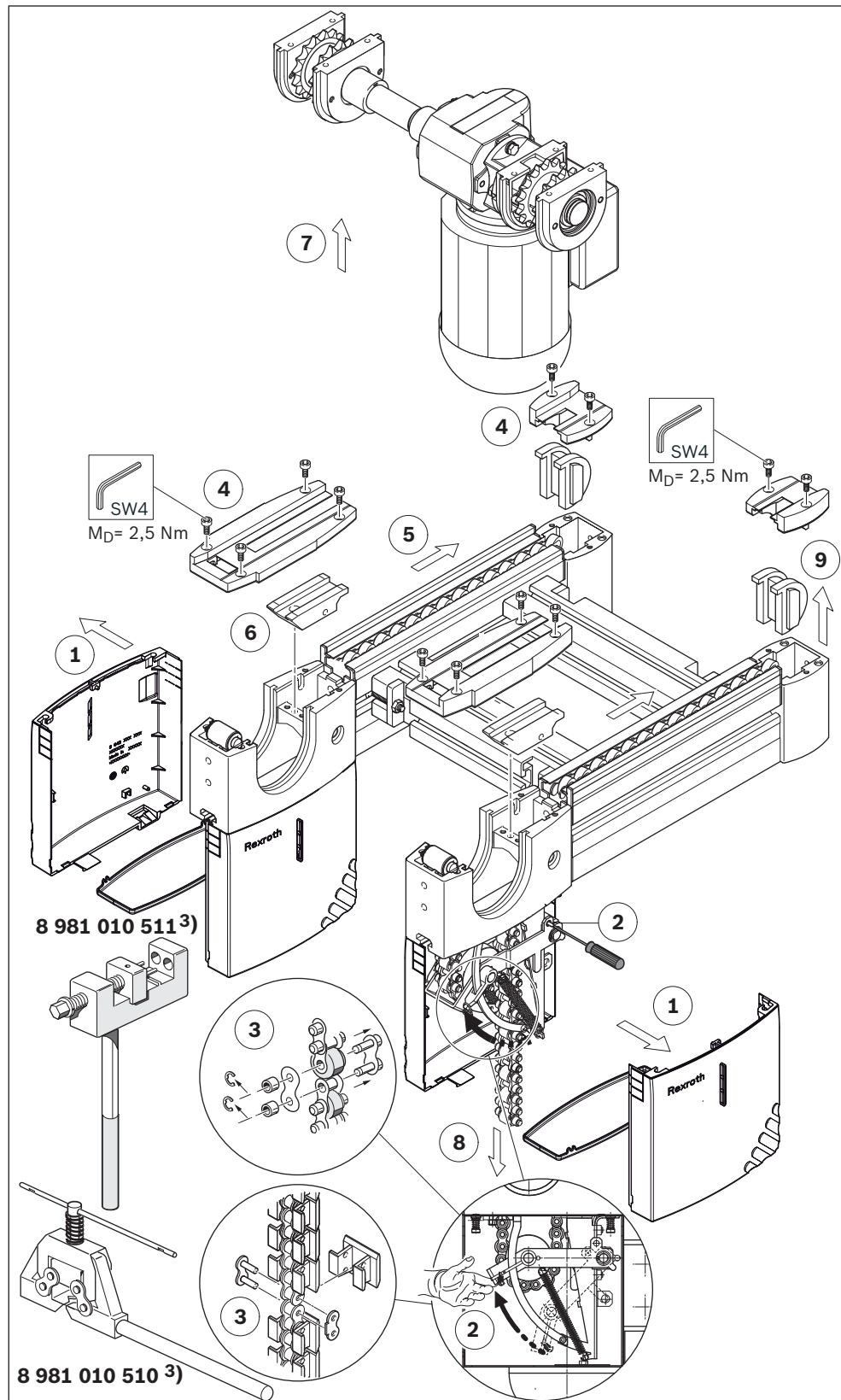


Fig. 47: Changing the conveyor chain BS 2/C-100, BS 2/R-300, MA = M (1/3)

563 833-49

Assembling the chain:

10. Drag the new chain ⁵⁾ to the return head with a pull-in aid.

⁵⁾ **BS 2/C..., BS 2/R...:**
Observe the running direction of the chain
☞ Fig. 42, page 61.

11. Hold the end of the chain vertically and insert the sliding piece into the return head.

**Please note:**

For the next assembly step, you need a helper or a lift aid.

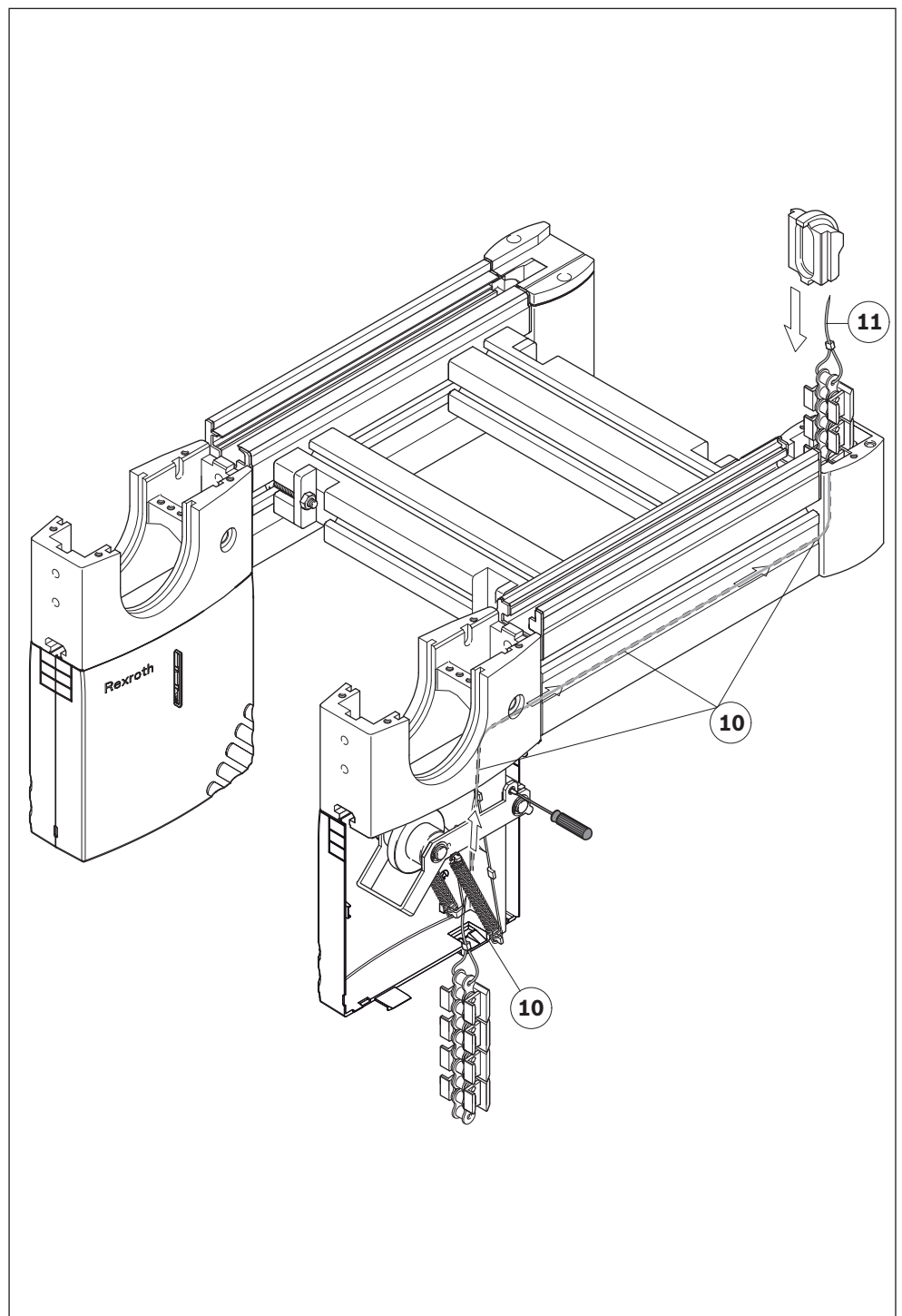
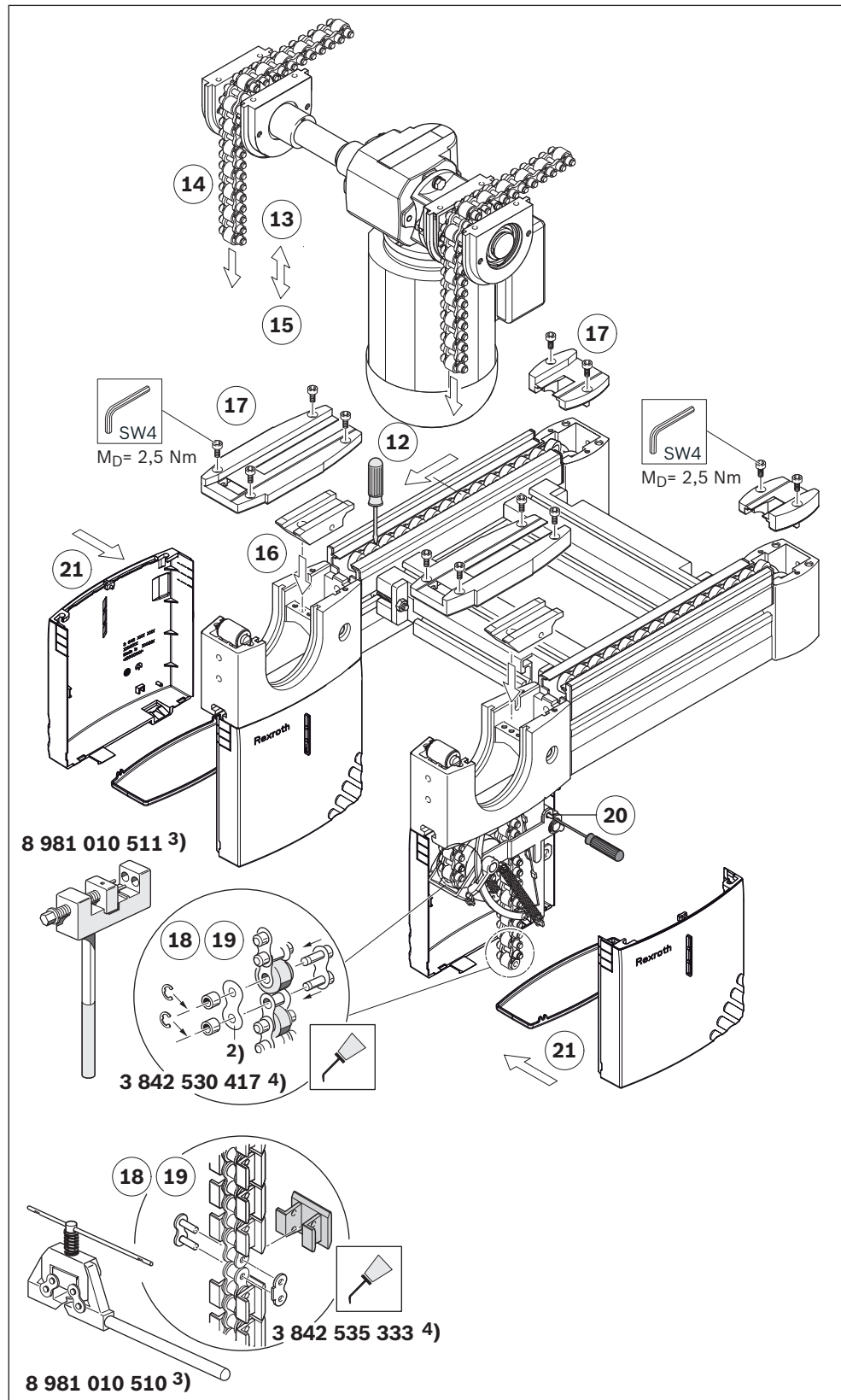


Fig. 48: Changing the conveyor chain BS 2/C-100, BS 2/R-300, MA = M (2/3)

563 833-50

12. Drag the chain in the top guide profile to the drive head.
 13. Hold the drive train over the drive heads.
 14. Guide the chain over the drive wheels through the drive head down to the chain tensioner.
 15. Connect the drive train in the drive heads.
 16. Lift the chain slightly and insert the sliding piece into the drive head.
 17. Install the drive and return head covers.
 18. Use the disassembly tool to remove so many excessive chain links that you can close the chain as closely as possible to the tensioning wheel.
 19. Grease the new chain lock 4) and close the chain.
- 4) Chain lock:
- for accumulation roller chain: **3 842 530 417**
20. Loosen the mount of the chain tensioner. Check the tension of the chain.
 21. Mount the outer halves of the protective case.



563 833-51

Fig. 49: Changing the conveyor chain BS 2/C-100, BS 2/R-300, MA = M (3/3)

**Please note:**

Perform the steps on both sides in parallel.

Disassembling the chain:

1. Remove the gear motor.
 2. Remove the side cover plates, remove the bottom cover sheets.
 3. Fix the chain tensioner.
 4. Open the chain with the disassembly tool 3).
- 3) Disassembly tool:
- for flat top chain: **3 842 010 510**
 - for accumulation roller chain: **3 842 010 511**
 - for accumulation roller chain *Vplus*: **3 842 539 357**

5. Remove the cover of the return head.
6. Pull the used chain down from the BS 2....
7. Remove the sliding piece from the return head.
8. Remove the return wheels from the return head.

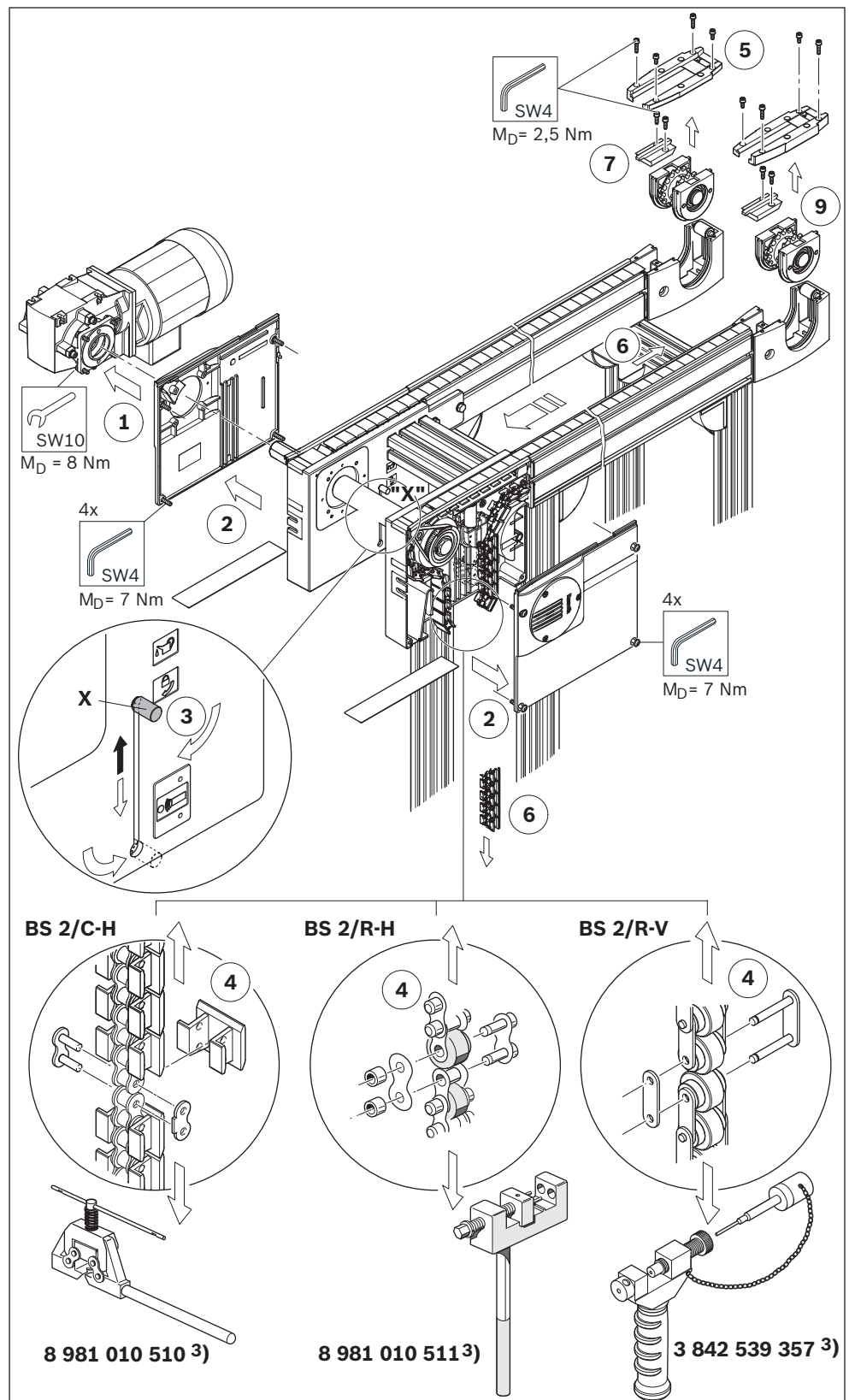


Fig. 50: Changing the conveyor chain BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200, MA = R/L (1/3)

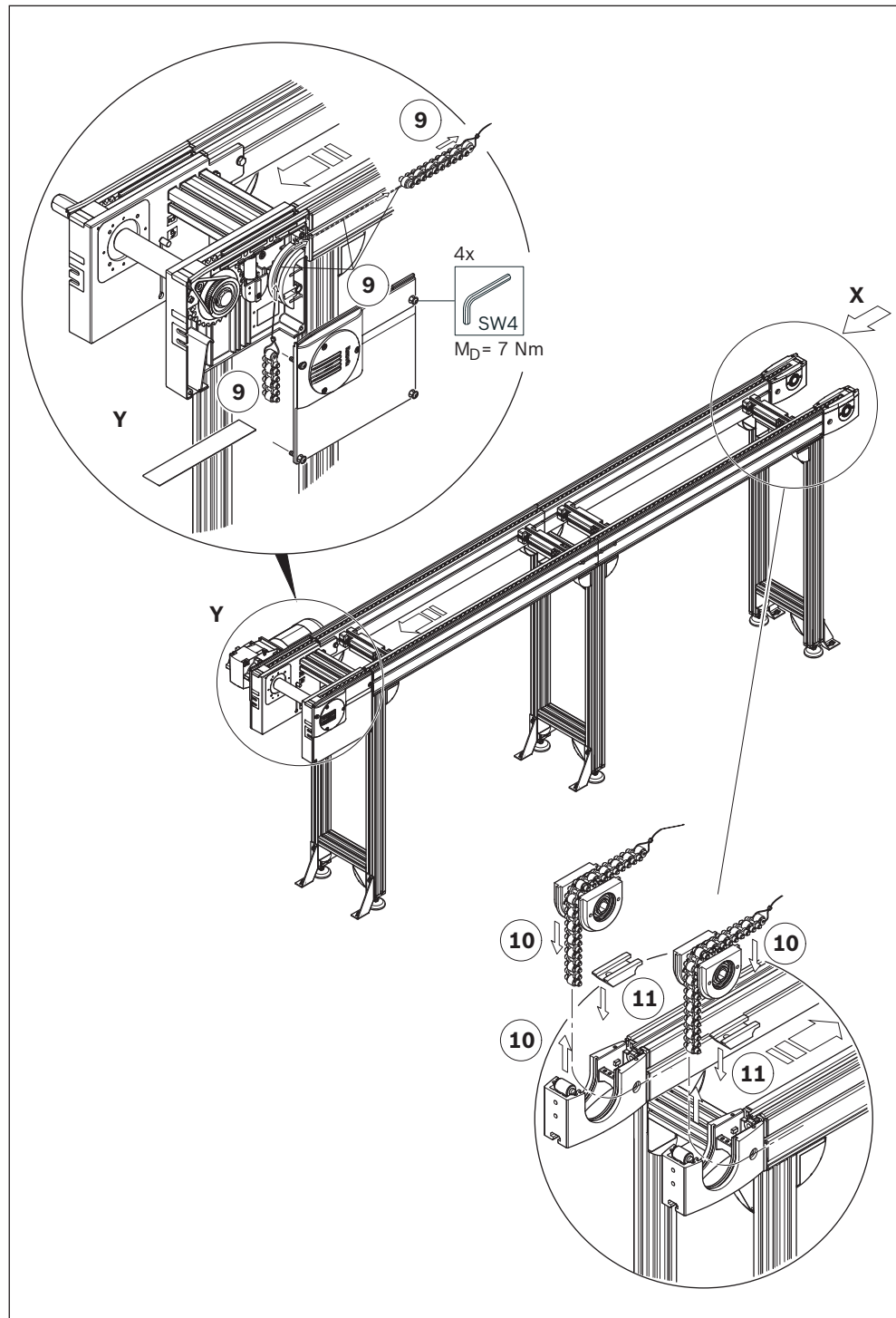
Assembling the chain:

9. Drag the new chain **5)** to the return head with a pull-in aid.

5) BS 2/C..., BS 2/R...:
Observe the running direction of the chain
☞ Fig. 42, page 61.

10. Place the chain around the return wheel and place the return wheel in the return head.

11. Mount the sliding piece into the return head.



563 833-53

Fig. 51: Changing the conveyor chain BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200, MA = R/L (2/3)

10.4.20 Changing the conveyor chain: BS 2/R-H, BS 2/R-V+ 1200, reversible, Motor mounting (MA) = R/L

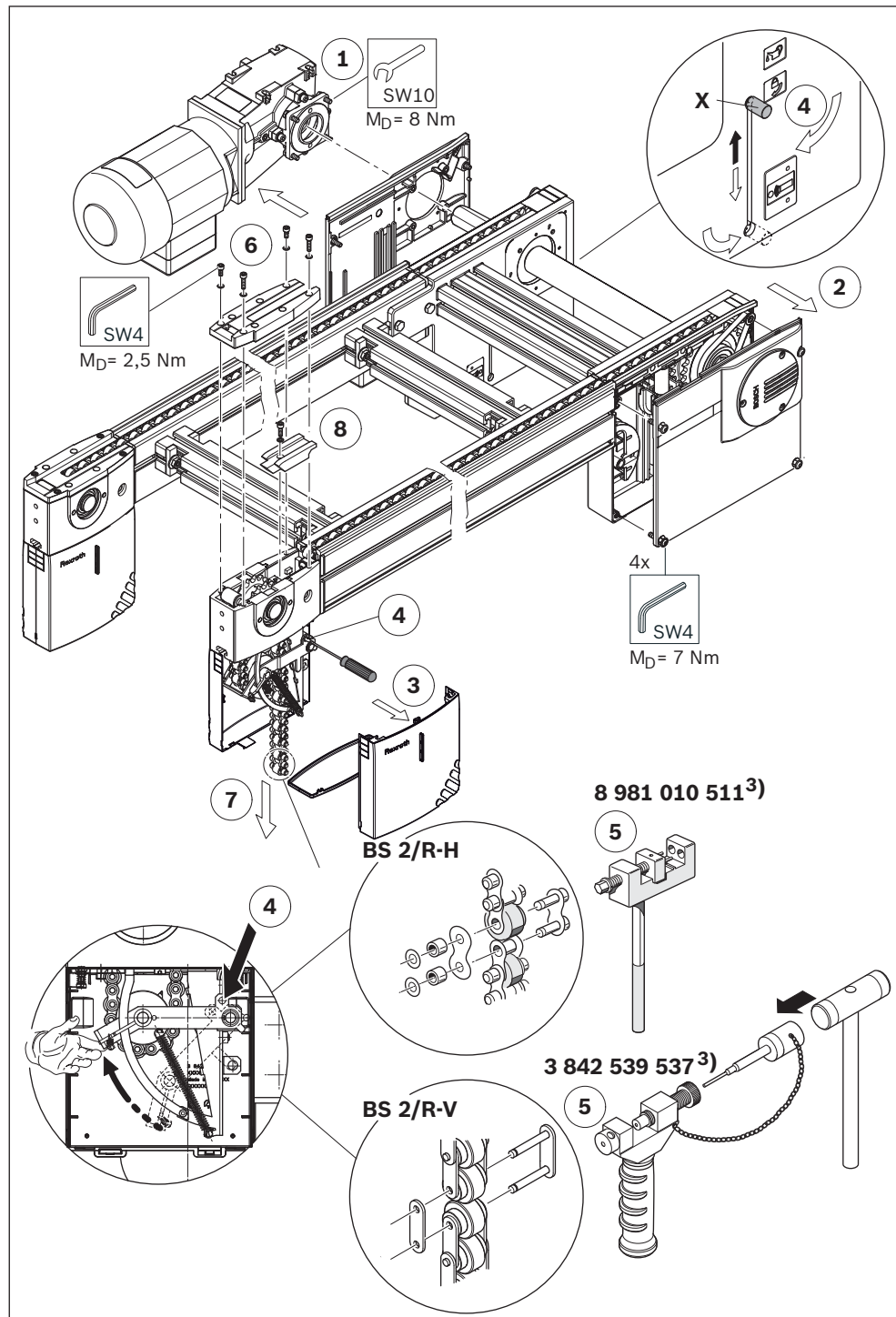


Please note:

Perform the steps on both sides in parallel.

Disassembling the chain:

1. Remove the gear motor.
2. Remove the side cover plates, remove the bottom cover sheets.
3. Disassemble the outer protective case halves.
4. Secure the chain tensioners at drive and return unit.
5. Use the disassembly tool ³⁾ to open the chain at the return unit.
- 3) Disassembly tool:
 - for accumulation roller chain: **3 842 010 511**
 - for accumulation roller chain *Vplus*: **3 842 539 357**
6. Remove the cover of the return head.
7. Pull the used chain down from the BS 2/....
8. Remove the sliding piece from the return head.



563 833-56

Fig. 53: Changing the conveyor chain BS 2/R-H, BS 2/R-V+ 1200, reversible (1/2)

Assembling the chain:

9. Drag the new chain 6) to the drive head with a pull-in aid.

6) **BS 2/C..., BS 2/R...:**

Observe the running direction of the chain

☞ Fig. 42, page 61.

10. Place the chain around the chain tensioner and the drive wheel and pull in the upper guide profile to the return head.

11. With the disassembly tool, remove so many chain links that you can close the chain as closely at the tensioning wheel as possible.

12. Grease the new chain lock 4) and close the chain.

4) Chain lock:

- for accumulation roller chain: **3 842 530 417**
- for accumulation roller chain *Vplus*: **3 842 538 872**

13. Loosen the mount of the chain tensioners. Check the tension of the chain.

14. Mount the outer halves of the protective case.

15. Install the lower cover sheets and the side cover plates.

16. Install the gear motor.

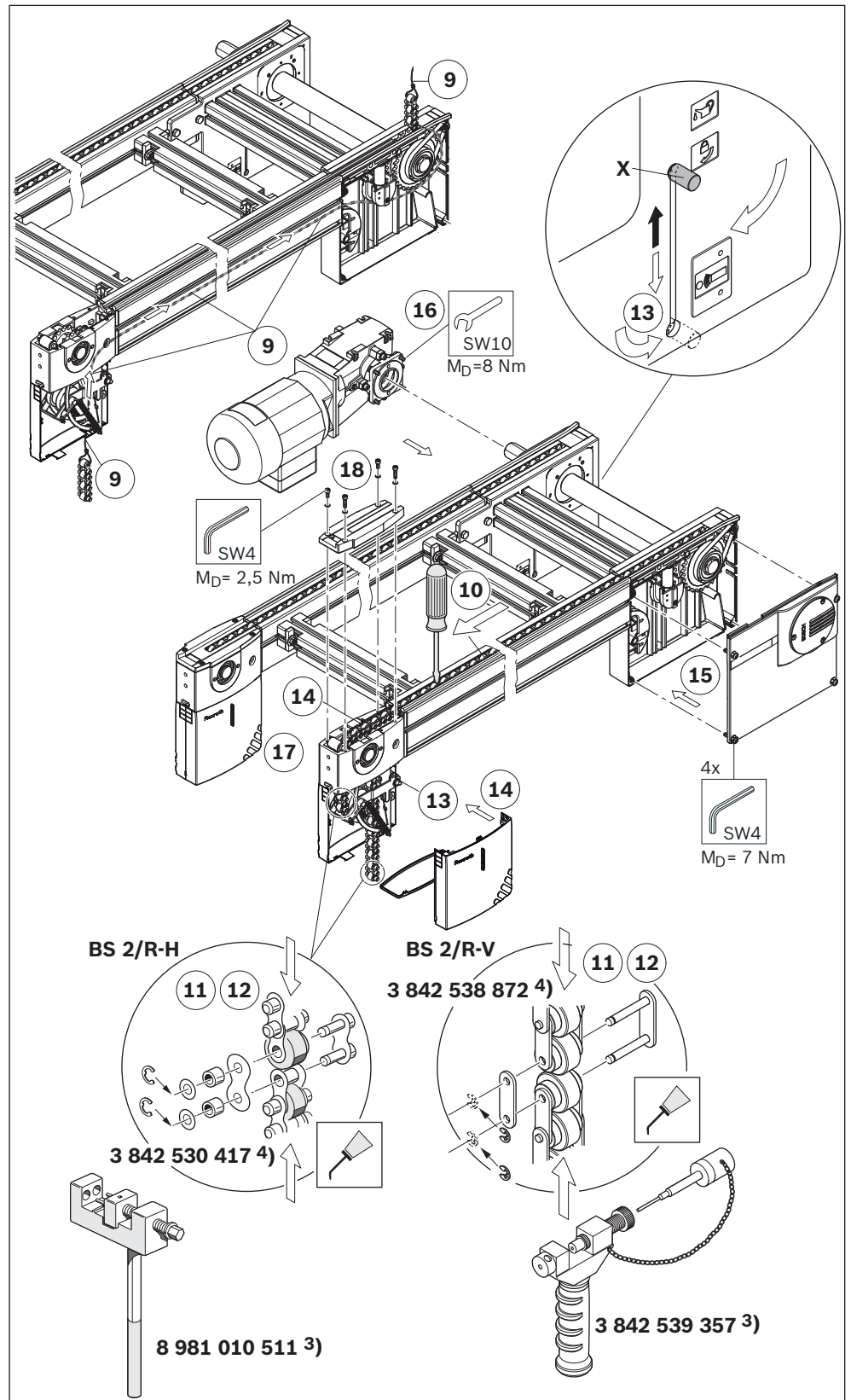


Fig. 54: Changing the conveyor chain BS 2/R-H, BS 2/R-V+ 1200, reversible (2/2)

563 833-57

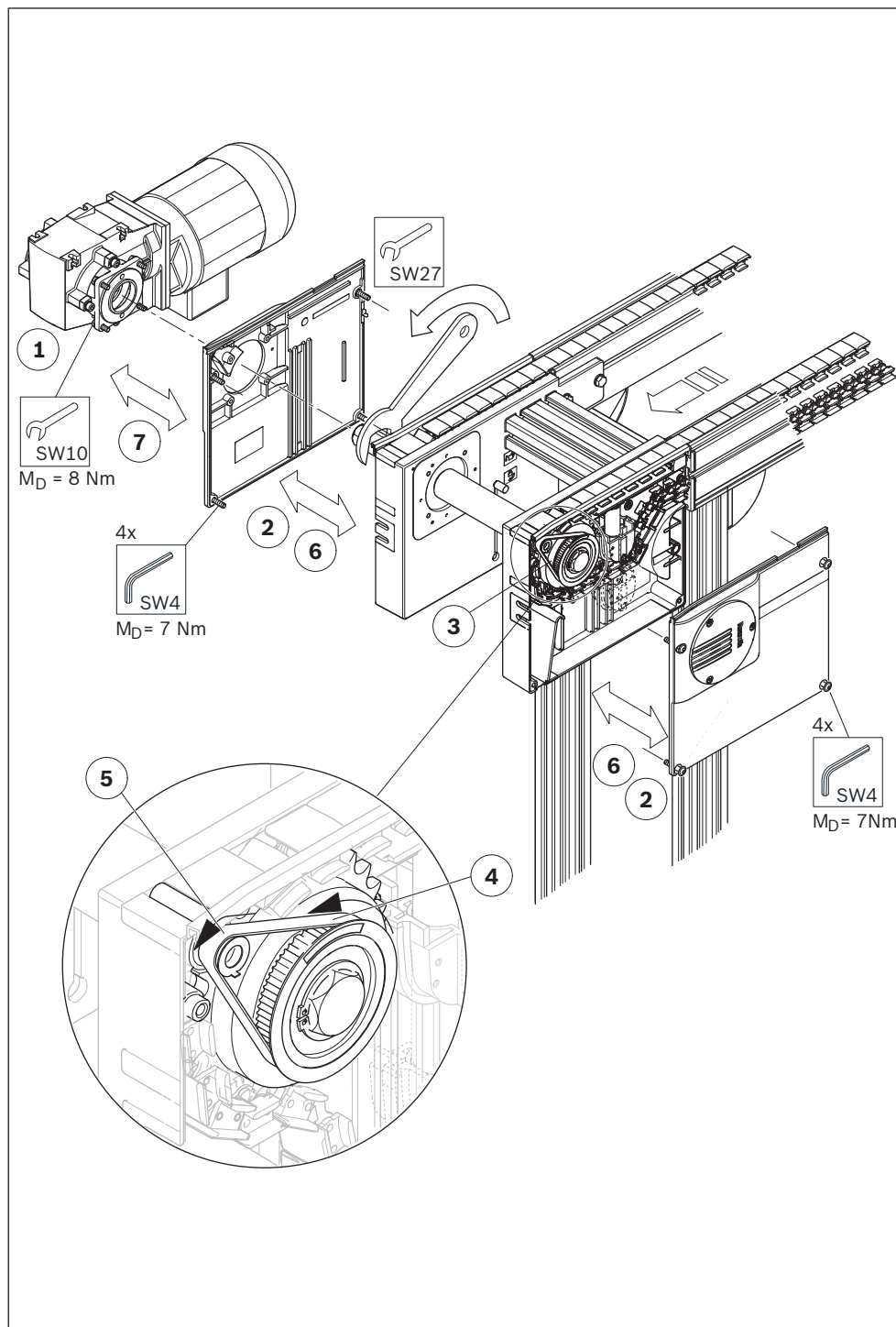
10.4.21 Changing the connection belt roller / connection toothed belt: BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200, motor mounting (MA) = R/L



Please note:

Perform the steps on both sides in parallel.

1. Remove the gear motor.
2. Remove the side cover plates.
3. Remove the toothed belt. Check the connection belt roller for wear and replace if necessary: Remove the connection belt roller from the axis; place the starting disk on the axis first, then the new connection belt roller.
4. Place the new toothed belt around the toothed belt wheel.
5. Rotate the drive wheels in the conveying direction, simultaneously place the toothed belt around the pinion of the connection belt roller.
6. Mount the side cover plates.
7. Install the gear motor.



563 833-55

Fig. 55: Changing the connection belt rollers / connection toothed belt:

10.4.22 Replacing the motor and/or gear BS 2/C-100, BS 2/R-300, Motor mounting (MA) = R/L

If only the motor is to be replaced, start with item 4.

1. Loosen the hexagon screws on the flange.
2. Remove the motor-gear combination from the hexagonal shaft.
3. Remove the cover plug from the defective gear and insert it at the new gear.
4. Loosen the hexagon screws on the gear flange.
5. Disconnect the defective gear from the motor.
6. Remove the yellow protective cap (X) from the motor shaft of the new motor.
7. Grease the motor shaft.
8. Install the motor.
9. Install the motor-gear combination.

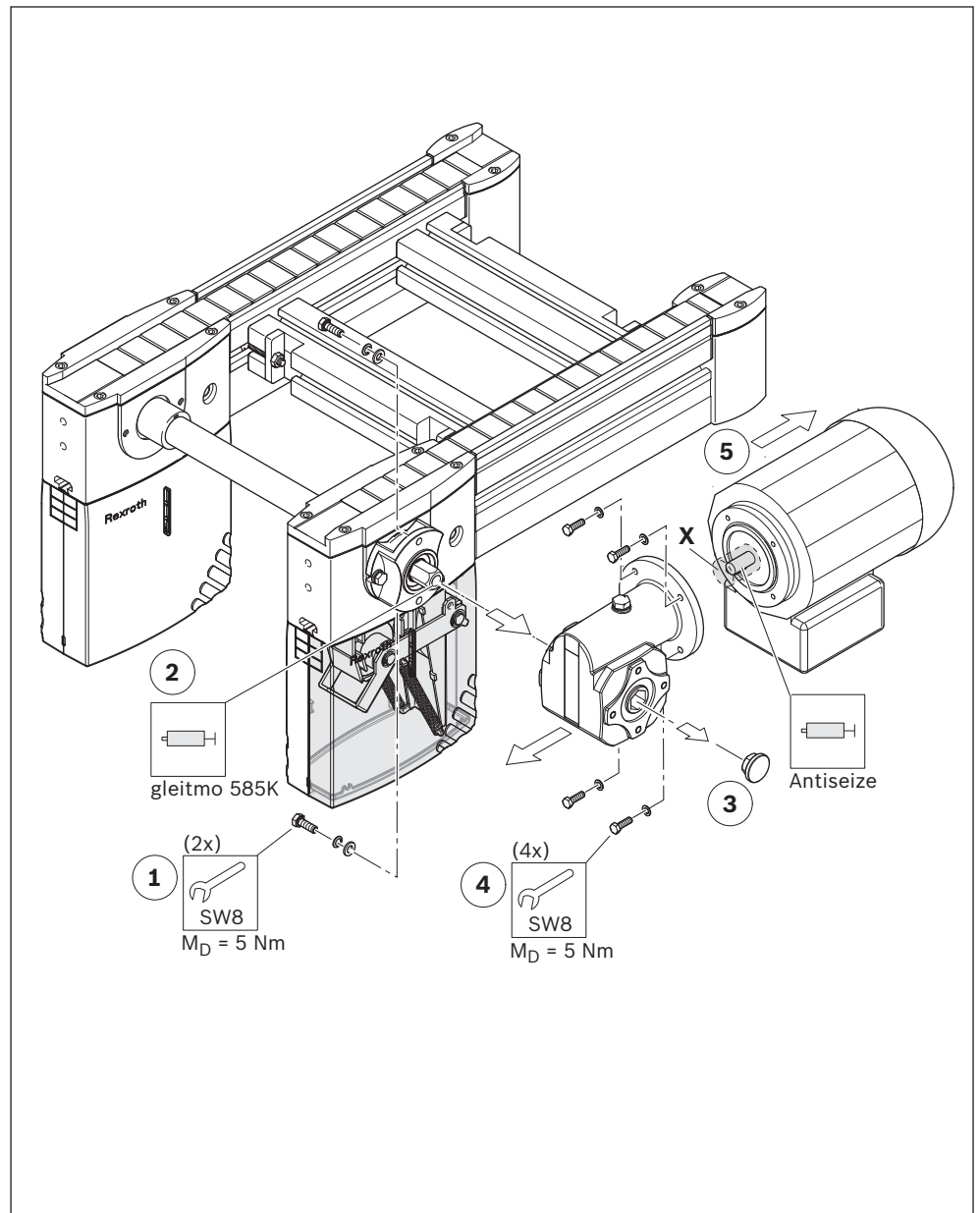


Fig. 56: Replacing the motor and/or gear, motor mounting (MA) = R/L



Please note:

- The end faces of the motor and gear must be undamaged.
- The gear hub comes lubricated with anti-seize lubricant.
- Do **not** tilt the motor and make sure that there is enough clearance area for the motor assembly.
- Install the motor in the proper position (terminal box) and connect it to the gear. If the motor is not in the proper position: Do **NOT** rotate the motor. Disconnect the motor from the gear and reconnect it.

10.4.23 Replacing the motor and/or gear BS 2/C-100, BS 2/R-300, Motor mounting (MA) = M

Disassembling the drive train: see Changing the conveyor chain, page 64, item 1 to item 7.

If only the motor is to be changed, the drive train does not have to be removed.

Then start with item 4.

1. Loosen the hexagon screws on the flange.
2. Disconnect the motor-gear combination from the drive train.
3. Loosen the hexagon screws on the gear flange.
4. Disconnect the defective gear from the motor.
5. Remove the yellow protective cap (X) from the motor shaft of the new motor.
Grease the motor shaft.
6. Install the motor.
7. Install the drive train.

Installing the drive train:
see Changing the conveyor chain, page 66, item 12 to item 21.

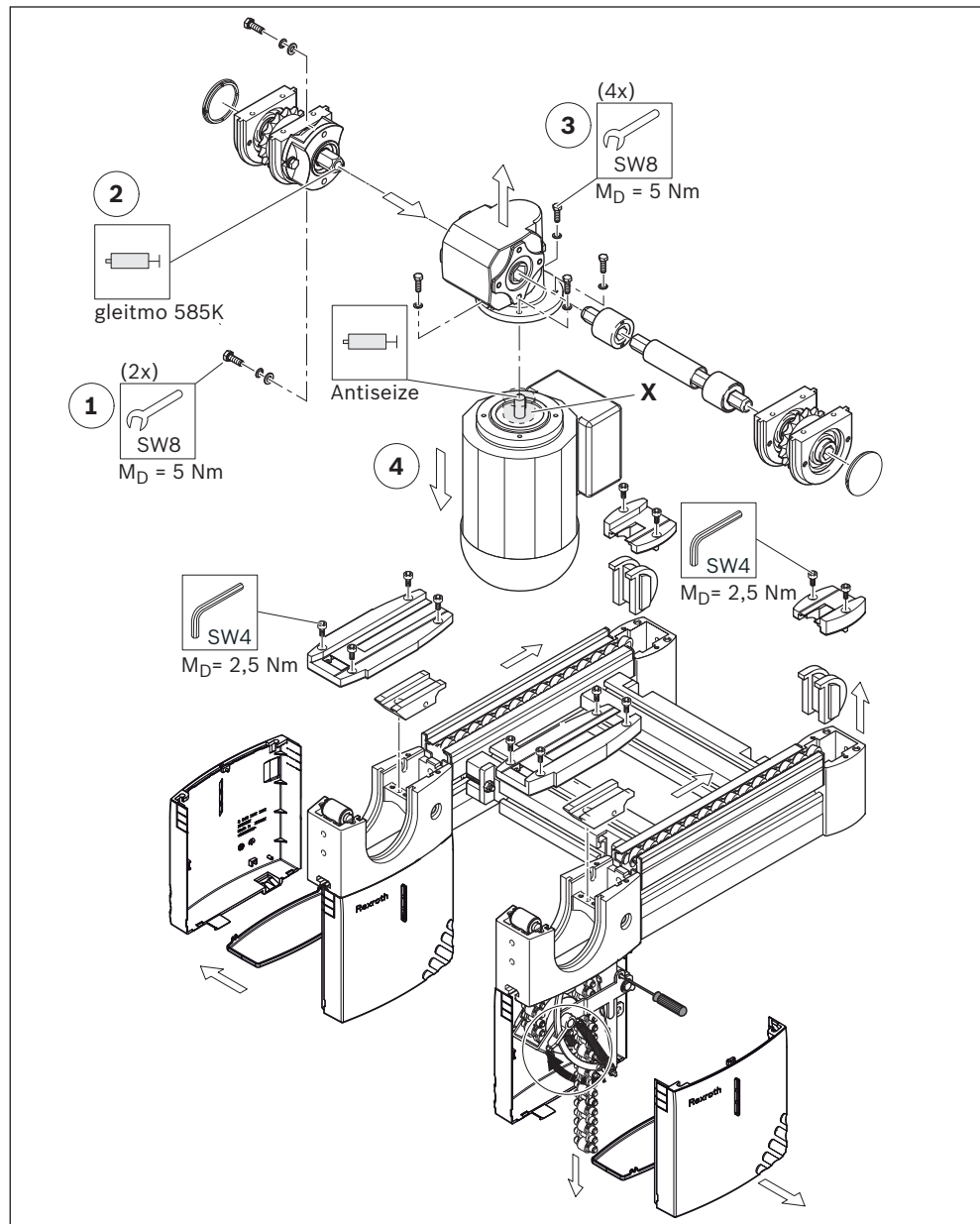


Fig. 57: Replacing the motor and/or gear, motor mounting (MA) = M

563 833-64



Please note:

- The end faces of the motor and gear must be undamaged.
- The gear hub comes lubricated with anti-seize lubricant.
- Do **not** tilt the motor and make sure that there is enough clearance area for the motor assembly.
- Install the motor in the proper position (terminal box) and connect it to the gear.
If the motor is not in the proper position: Do **NOT** rotate the motor. Disconnect the motor from the gear and reconnect it.

**Please note:**

The gear motor can only be exchanged completely. A separation of motor and gear is not permitted!

1. Remove the gear motor.
2. Remove the flange from the gear motor.
3. Remove the plug.
4. Mount the plug at the new gear motor.
5. Mount the flange at the new gear motor.
6. Install the gear motor.

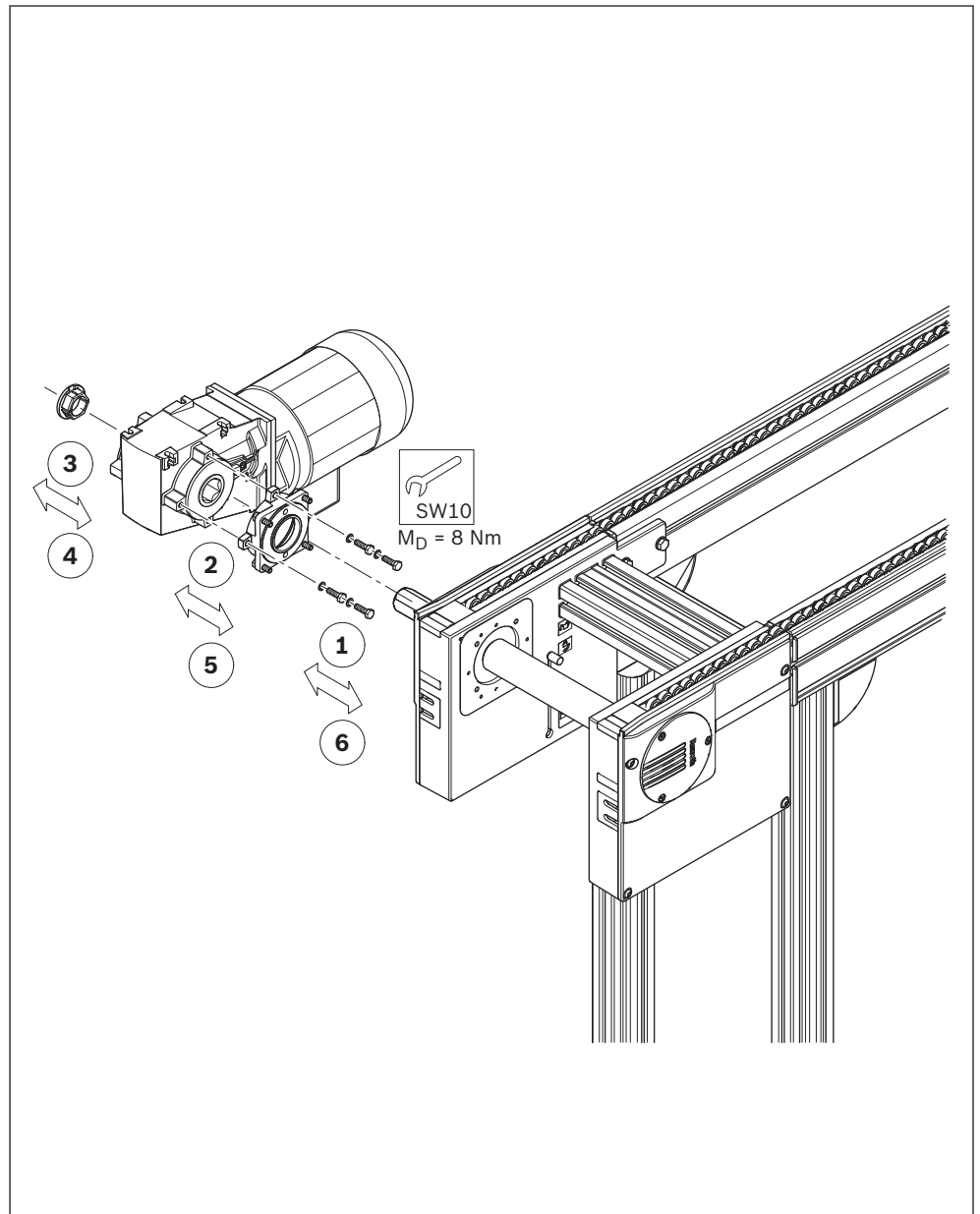


Fig. 58: Replacing the gear motor, motor mounting (MA) = R/L

563 833-65

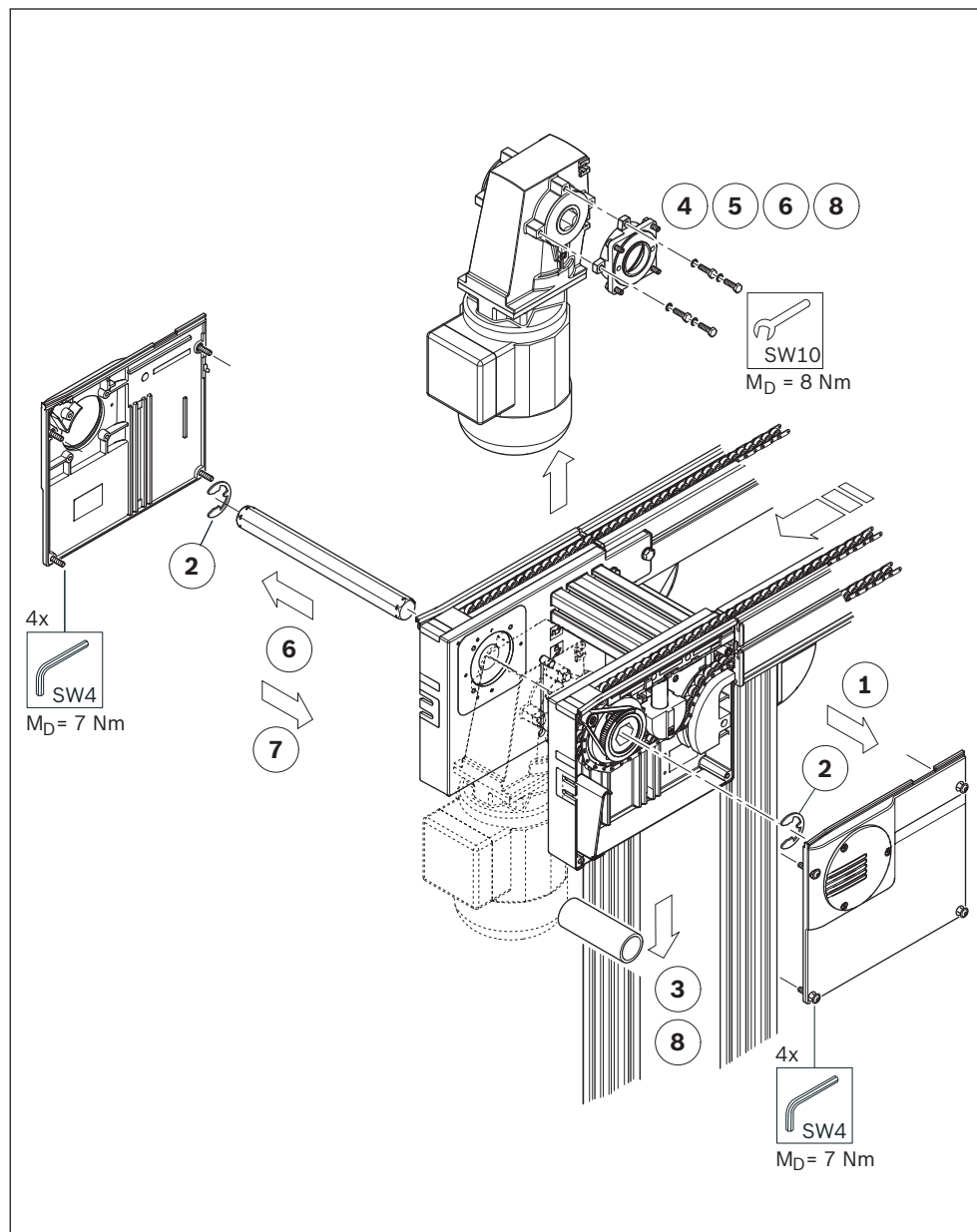
10.4.25 Replacing the gear motor: BS 2/C-H, BS 2/R-H, BS 2/R-V+ 1200, motor mounting (MA) = M



Please note:

The gear motor can only be exchanged completely. A separation of motor and gear is not permitted!

1. Remove the side cover plates.
2. Remove the locking rings from the hexagonal shaft.
3. Slide the hexagonal shaft out of the drive. Store the protective tube for reuse.
4. Remove the flange from the gear motor.
5. Mount the flange at the new gear motor.
6. Assemble the gear motor and tighten the screws by hand.
7. Push the hexagonal shaft into the drive. While doing so, insert the protective pipe. Secure the hexagonal shaft with locking rings.
8. If the gear motor is centered by the hexagonal shaft, tighten the screws.



563 833-66

Fig. 59: Replacing the gear motor, motor mounting (MA) = M

10.4.26 Changing the glide profiles: BS 2/C-100, ...-250, BS 2/C-H

Required accessories:

- Glide profile (C)
 - GP 2/H-ST ¹⁾ (48 x L=3000 mm)
3 842 564 315
 - GP 2/H-KS ²⁾ (24 x L=6000 mm)
3 842 564 314
- Guide profile (D)
 - FP 2/C/R ²⁾ (12 x L=6000 mm)
3 842 567 261
- Glide profile (E)
 - GP 2 ²⁾ (24 x L=6000 mm)
3 842 567 260

1) ST = steel

2) KS = plastic

1. Remove the chain, see chapter “Changing the conveyor chain”.
2. Clean the interior (X) of the section profile thoroughly.

**Please note:**

Before removing the glide profiles, thoroughly clean the interior (X) of the section profile of grease, dirt and other impurities. Dirt in the slots (Y) prevents the assembly of the glide profiles in the correct position.

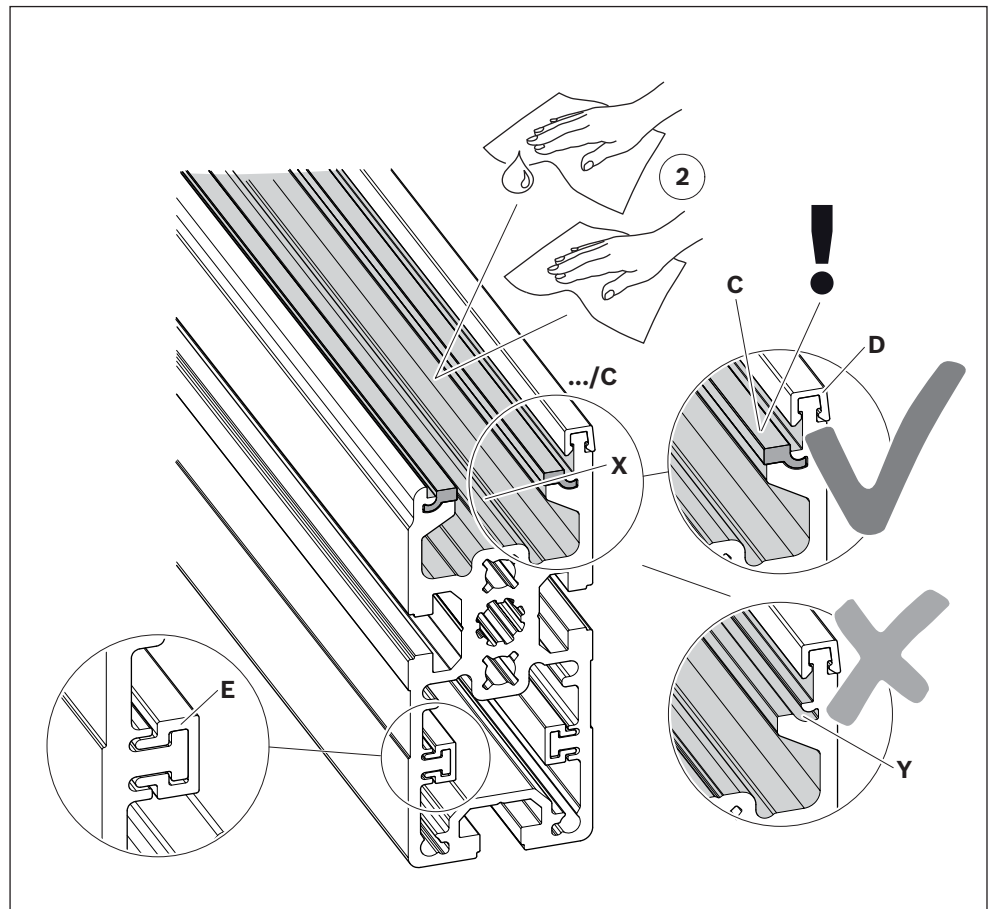
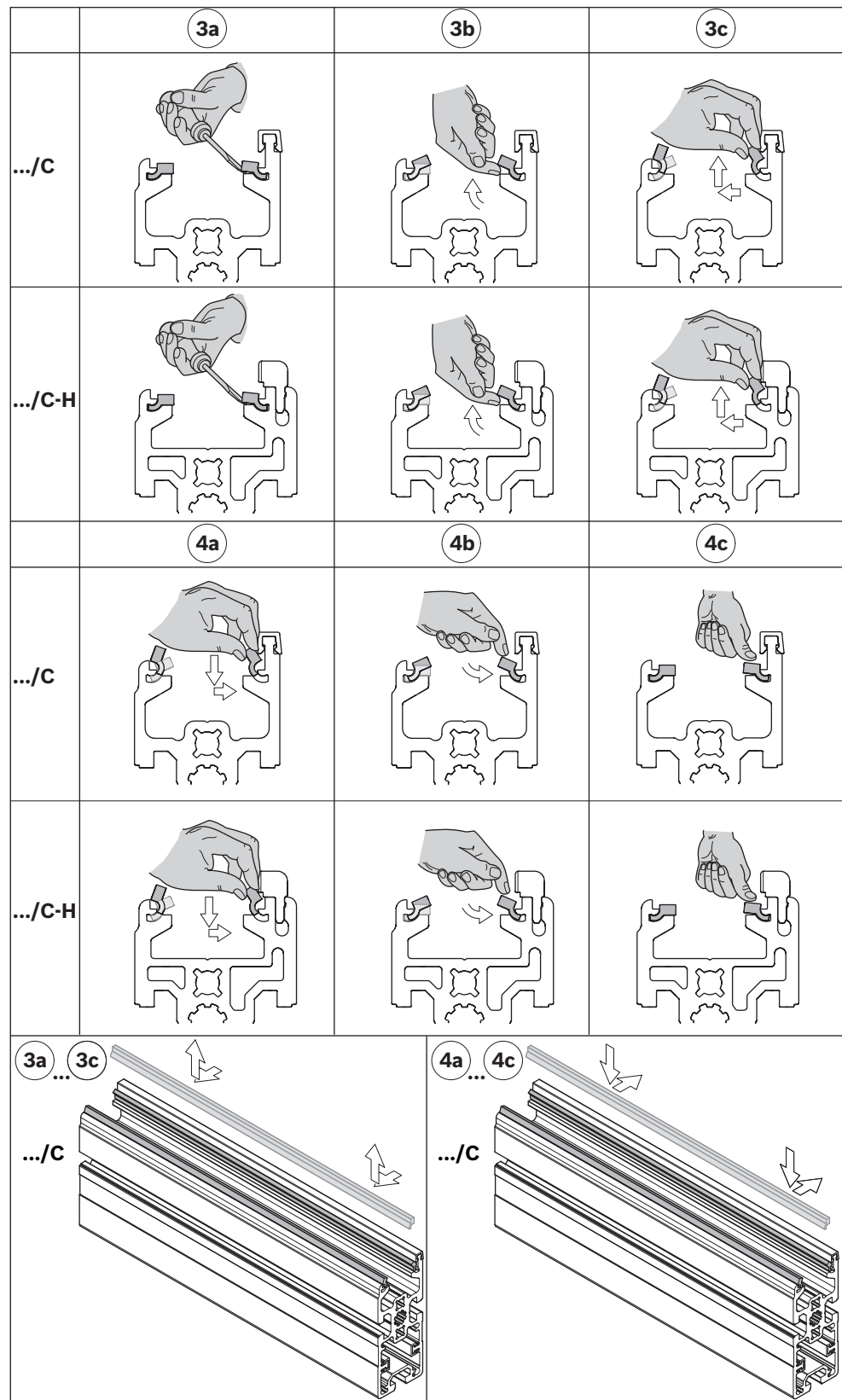


Fig. 60: Changing the glide profiles: BS 2/C-100, ...-250 (shown), BS 2/C-H (1/2)

563 833-81

3. Remove the worn glide profiles.
4. Install the new glide profiles.
 - Attach the glide profile vertically at the groove.
 - Swivel the glide profile into the groove.
 - Press the glide profile into the end position.
5. Install the chain, see chapter "Changing the conveyor chain".



563 833-82

Fig. 61: Changing the glide profiles: BS 2/C-100, ...-250, BS 2/C-H (2/2)

10.4.27 Changing the glide profiles: BS 2/R-300, ...-700, BS 2/R-H, BS 2/R-V+ 1200

Required accessories:

- Assembly aid GP 2 (A, **yellow**) for inserting the glide profile into the section profile ST 2/R, .../R-H
(set, 5 pieces)
3 842 564 982
- Assembly aid GP 2 (B, **red**) for inserting the glide profile into the section profile ST 2/R-V
(set, 5 pieces)
3 842 564 984
- Glide profile (C)
– GP 2/H-ST ³⁾
(48 x L=3000 mm)
3 842 564 315
– GP 2/H-KS ⁴⁾
(24 x L=6000 mm)
3 842 564 314
- Guide profile (D)
– FP 2/C/R ⁴⁾
(12 x L=6000 mm)
3 842 567 261
- Glide profile (E)
– GP 2 ⁴⁾
(24 x L=6000 mm)
3 842 567 260

1) yellow

2) red

3) ST = steel

4) KS = plastic

1. Remove the chain, see chapter "Changing the conveyor chain".
2. Clean the interior (X) of the section profile thoroughly.

**Please note:**

Before removing the glide profiles, thoroughly clean the interior (X) of the section profile of grease, dirt and other impurities. Dirt in the slots (Y) prevents the assembly of the glide profiles in the correct position.

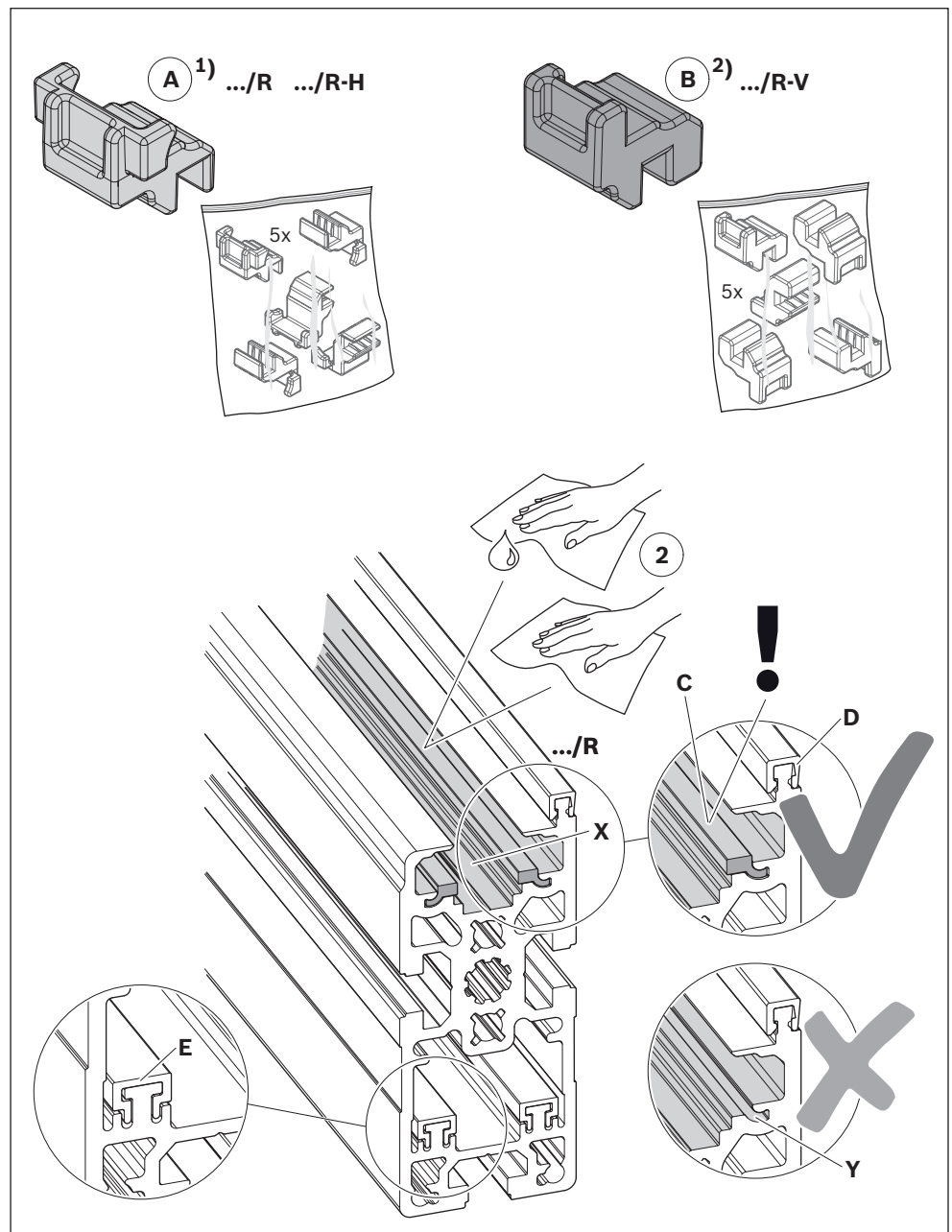
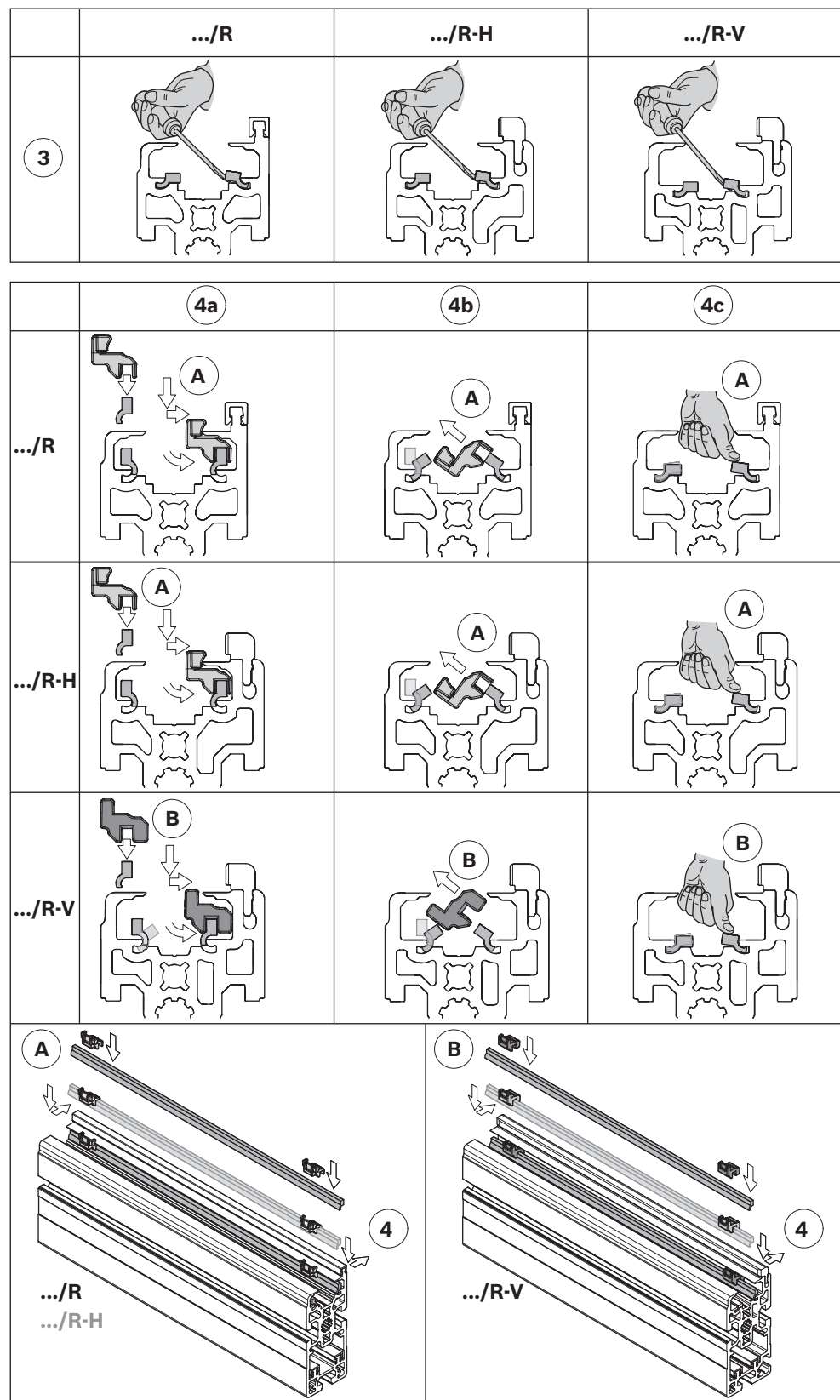


Fig. 62: Changing the glide profiles: BS 2/R-300, ...-700 (shown), BS 2/R-H, BS 2/R-V+ 1200 (1/2)

3. Remove the worn glide profiles.
4. Install the new glide profiles.
 - ▶ Insert the assembly aids (A/B) onto the glide profile.
 - .../R: A, **yellow**
 - .../R-H: A, **yellow**
 - .../R-V: B, **red**
 - ▶ Attach the glide profile vertically at the groove.
 - ▶ Swivel the glide profile into the groove.
 - ▶ Remove the assembly aids and press the glide profile into the end position.
5. Install the chain, see chapter "Changing the conveyor chain".



563 833-77

Fig. 63: Changing the glide profiles: BS 2/R-300, ...-700, BS 2/R-H, BS 2/R-V+ 1200 (2/2)

10.5 Spare parts

For a list of spare parts, see spare parts list in MTpro, **3 842 539 057** (download: www.boschrexroth.com/mtpro).

11 Decommissioning

This product is a component which does not need to be decommissioned. Accordingly, this section has been left blank.

12 Disassembly and replacement

WARNING

High electrical voltage!

- ▶ Risk of severe injury or death from electric shock.
- ▶ Disconnect the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

High pneumatic pressure!

- ▶ Risk of severe injury or death.
- ▶ Switch off the compressed air supply to the relevant system component before performing any maintenance or repair work.
- ▶ Secure the system against being unintentionally switched on again.

Suspended loads may fall!

- ▶ Falling objects can result in severe injury (or even death).
- ▶ Use only slings with sufficiently high bearing loads (for product weight see delivery documents).
- ▶ Make sure the lifting straps are correctly fastened before lifting the product!
- ▶ Secure the product against tipping over when lifting!
- ▶ Make sure that no one but the operator is in the danger zone during lifting and lowering!

12.1 Preparing the product for storage/later use

- Only set the product down on a flat surface.
- Protect the product from mechanical stress.
- Protect the product from environmental influences, such as dirt and moisture.
- Observe the ambient conditions, see page 83.
- For belt sections with mounted motor and/or mounted lubrication unit: Support the belt section so that the motor or lubrication unit are not overloaded.

13 Disposal

- The materials used are environmentally friendly.
- They can be recycled or reused (components may have to be processed and replaced). Recyclability is ensured by the selection of materials and the ability to take the components apart.
- Careless disposal may lead to environmental contamination.
- Dispose of the product in accordance with the regulations in your country.

14 Upgrading and modification

- Do not modify the product.
- The Bosch Rexroth warranty only applies to the configuration as delivered, and to approved upgrades. The manufacturer will not accept any warranty claims for systems with unapproved modifications or upgrades.

15 Troubleshooting

- If you cannot correct a fault, please contact one of the addresses you can find at www.boschrexroth.com.

16 Technical data

- For dimensions, see sales catalog TS 2*plus*.
- Maximum load/section load:
 - BS 2/C-100 belt section: max. 100 kg / 1.0 kg/cm support surface length
 - BS 2/C-250 belt section: max. 250 kg / 1.0 kg/cm support surface length
 - BS 2/C-H belt section: max. 400 kg / 2.0 kg/cm support surface length
 - BS 2/R-300 belt section: max. 300 kg / 1.5 kg/cm support surface length
 - BS 2/R-700 belt section: max. 700 kg / 1.5 kg/cm support surface length
 - BS 2/R-H belt section: max. 1200 kg / 2.0 kg/cm support surface length
 - BS 2/R-V+ 1200 belt section: max. 1200 kg / 1.5 kg/cm support surface length
- Noise emissions: < 70 dB (A)

16.1 Ambient conditions

- The transfer systems have been designed for stationary use in a location that is protected from the elements.
- Operating temperature
 - +5 °C to +40 °C
 - 5 °C to +60 °C at 20 % reduced load
- Storage temperature –25 °C to +70 °C
- Relative humidity 5% to 85%
- Air pressure > 84 kPa, corresponds to an installation altitude < 1400 m above sea level
- Max. load capacity of floor: 1000 kg/m²
- At installation altitudes > 1400 m, the load values of the electric drives are reduced by 15%.
- The area should be kept free of mold, fungus, rodents and other vermin.
- Do not install or operate in the immediate vicinity of industrial equipment producing chemical emissions.
- Do not install or operate near sources of sand or dust.
- Do not install or operate in areas that are regularly subjected to high-energy forces caused, for example, by presses or heavy machinery.
- Resistant to many media that are commonly found in manufacturing, such as water, mineral oil, grease, and detergents. Contact your Rexroth representative if you have any doubts about resistance to specific chemicals, such as test oil, doped oils, corrosive detergents, solvents or brake fluid.
- Avoid prolonged contact with highly reactive acidic or alkaline materials.

Bosch Rexroth AG

Postfach 30 02 07

70442 Stuttgart

Germany

Fax +49 711 811-7777

info@boschrexroth.de

www.boschrexroth.com

