

Qimarox[®]



Assembly instructions
PRORUNNER mk1
Version 1.3 / 12-02-2014

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1 General

This chapter provides general information about the PRORUNNER mk1 and these assembly instructions

1.1 Preface

These are the assembly instructions for the PRORUNNER mk1 product lift manufactured by Qimarox B.V. These instructions include all information that is important to you, the installer and/or user, to assemble the PRORUNNER mk1. The assembly instructions are intended for:

- resellers/OEMs (installers)
- end users (technical department)

These assembly instructions are a supplement to the user manual. Always consult the user manual before use.

1.2 Manufacturer

Qimarox B.V.
Nobelstraat 43
3846 CE Harderwijk
The Netherlands

Tel:+31 341 436 700
Fax:+31 341 436 701
Email:info@qimarox.com
Internet: www.qimarox.com.

1.3 Machine identification

The machine identification plate for the PRORUNNER mk1 is shown below.

Made in Holland. Designed and patented by		Qimarox®		CE	PRORUNNER mk1
Manufacturing Year	:	www.Qimarox.com			
Type	:				
Serial number	:	mk1			
Order number	:				
Power supply	:				
Power (kW) PRORUNNER mk1	:				
Power (kW) conveyors	:				
Max. load (kg) per platform	:				
Max. load (kg) PRORUNNER mk1	:				
Weight PRORUNNER mk1 (kg)	:	Number of platforms	:		
Weight conveyors (kg)	:	Nominal capacity (p/hour)	:		
Total weight (kg)	:				
THIS PRODUCT IS PROTECTED BY ONE OR MORE PATENTS, FOR MORE INFO VISIT MKSPATENTS.QIMAROX.COM					

Type plate for user manual

The type plate is located on the side of the lift.

For more information about the type plate, consult the user installation manual.

1.4 Guarantee

The scope and duration of the guarantee is agreed when the order is placed.

The guarantee applies only if the PRORUNNER mk1 is used according to the specifications and if the use and maintenance instructions are observed.

The PRORUNNER mk1 guarantee lapses if:

- Improper use.
- Inadequate maintenance.
- Improper maintenance.
- Changes to the PRORUNNER mk1 without prior consent from the manufacturer.

The guarantee does not apply to machine parts that need periodic replacement (wear parts).

For more information, consult the user manual.

1.5 Liability

Qimarox B.V. is not liable for unsafe situations, accidents and damage resulting from:

- Failing to observe warnings or rules displayed on the machine or described in these assembly instructions.
- Using the machine for applications or under circumstances other than known at the time the order is placed with Qimarox B.V. Modifying the machine in any way. This also applies to replacement parts other than those specified in these assembly instructions.
- Inadequate maintenance.

1.6 CE Declaration of Conformity

The machine complies with the essential requirements regarding safety and hygiene. For the guidelines that led to the design: see the CE Declaration annex of the user manual.

1.7 Trademark

The following terms are trademarks of Qimarox B.V. in the United States of America, the Netherlands and/or possibly other countries: Qimarox B.V. PRORUNNER.



All other trademarks are the property of their respective owners.

2 Safety

The responsibility of Qimarox B.V. lapses if the user does not comply with the guidelines and instructions provided in these assembly instructions for the assembly and construction of the PRORUNNER mk1.

2.1 Safety symbols

The following symbols are used in these assembly instructions:



Risk of damage to the PRORUNNER mk1 if the instructions are not followed carefully.



Risk of serious injury to the user if the instructions are not followed carefully.

The following safety symbols may be attached to the PRORUNNER:



Danger for which the additional precautions described in this manual must be taken.



Danger of electrical voltage, attached to the control cabinets



Instructions for switching off the machine before carrying out maintenance activities, attached to the side frame of the machine.



No access beyond this point, attached to every access door or opening before reaching the danger zone.



Risk of trapping upper limbs, if applicable attached near the openings near the forks for the infeed and outfeed roller tracks.



Risk of trapping upper limbs between moving rollers, if applicable attached near the infeed and outfeed roller tracks.

2.2 Installation



Before the PRORUNNER mk1 is put into service, all of the parts the machine is composed of must comply with the applicable local regulations.
See the user manual for installation instructions.
Feel free to contact Qimarox B.V if you need assistance.

The PRORUNNER mk1 may only be assembled by certified personnel.



The safety instructions stated in this manual must be observed. Deviating from the instructions may result in unacceptable risks!

The installer must be familiar with the contents of the user manual.

2.3 Modifications



Modifications that can affect the safety of the product lift may only be carried out with the permission from persons authorised by the directors.



Do not make any modifications that conflict with the local, regional or national legislation.



Ensure that the on/off switch is readily accessible.

Qimarox B.V. is always willing to discuss improvements by modifications to the machine. See Further support and information in the user manual.

2.4 Safety devices



It is not permitted to disassemble, bypass or disable any safety devices. See the user manual for the required references.



The PRORUNNER mk1 may not be started or must be immediately taken out of service if one of the safety devices is defective.

The PRORUNNER mk1 must have the following safety devices:

Emergency stop Use the emergency stop (A) in the event of an an emergency.

Fencing Qimarox B.V is obliged to guard the PRORUNNER mk1 with a fence. The access door(s) must be secured with (interlock) door switches. These switches must be included in the emergency stop circuit.



The doors must not never be closed if someone is inside the fencing.



The machine must be switched off and secured when prolonged work is carried out inside the fencing.



Always put all of the safety devices that were removed back in place as soon as maintenance work has been completed.

2.5 Safety instructions

Observe the following general safety instructions:

- Connect the PRORUNNER mk1 in accordance with the basic health and safety requirements of the relevant European directives.
- Before you put the PRORUNNER mk1 into service, check that the machine has been installed in accordance with the instructions in this manual.
- Never switch on the power to the PRORUNNER mk1 or start the PRORUNNER mk1 if there are people in contact with the machine or if there are people inside the danger zones.
- Switch off the power to the machine using the main switch before carrying out any maintenance or repair work on the PRORUNNER mk1. Secure the main switch with a padlock.
- Keep your hands away from danger zones.
- Be careful of loose clothing and hair.
- Wear head protection.
- Make sure there are no people or objects within reach of the moving parts of the PRORUNNER mk1.

- Replace damaged or defective parts before putting the PRORUNNER mk1 into service again.
- Maintenance on the PRORUNNER mk1 must be carried out by trained engineers.
- Always be on the alert for dangerous situations.

2.6 Residual risks

The machine is intended to be integrated into a transport system. Qimarox B.V has covered potential dangers as much as possible. Eliminate or guard the following residual risks before putting the whole assembly into service:

- Risk of injury caused by falling products.
- Risk of injury as a result of moving product holders.
- Danger that occurs in places where the PRORUNNER mk1 connects to other parts of the production line.

The interior of the machine is accessible through the large openings in the front frame. Guards may also be required for the supply, output, infeed and outfeed conveyors.

All other sides of the machine do not need extra protection. However, one must, if the top cover on the rear is accessible, make sure that the recess for the electric motor is not too large and possibly take measures to make the recess smaller or inaccessible.

If the machine is not only accessible from ground level, guard the places where this may cause danger.

2.7 Maintenance

The PRORUNNER mk1 may only be maintained by qualified personnel.



The safety instructions stated in the user manual must be observed. Deviating from the instructions may result in unacceptable risks!
Only use spare parts from Qimarox B.V

The maintenance engineer must be familiar with the contents of the user manual.

2.8 Disposal and the environment

Use and maintenance of the lift do not bring along any environmental risks. All parts can be disposed of as customary.



ENVIRONMENT

Consider local legislation, rules, instructions and precautions regarding safety, health and the environment.

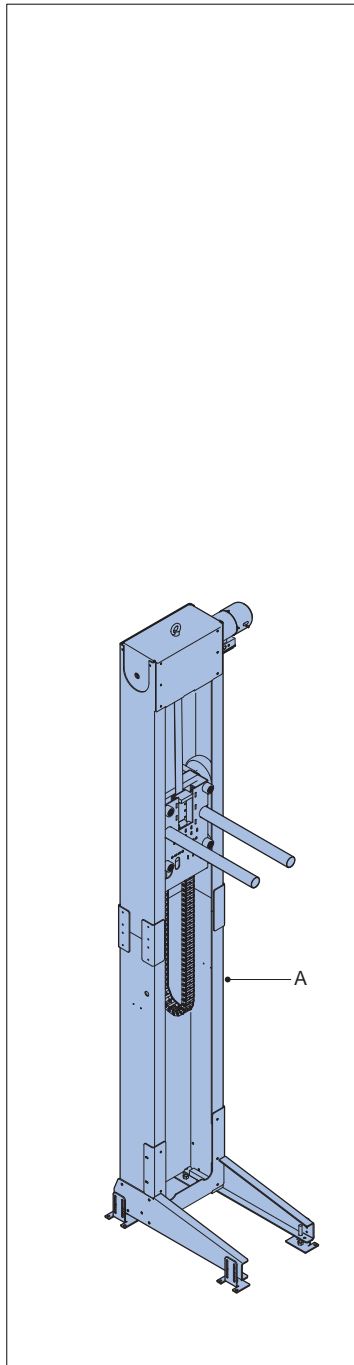
2.9 Further support and information

Qimarox B.V. is committed to providing the best user support. The support may include the following:

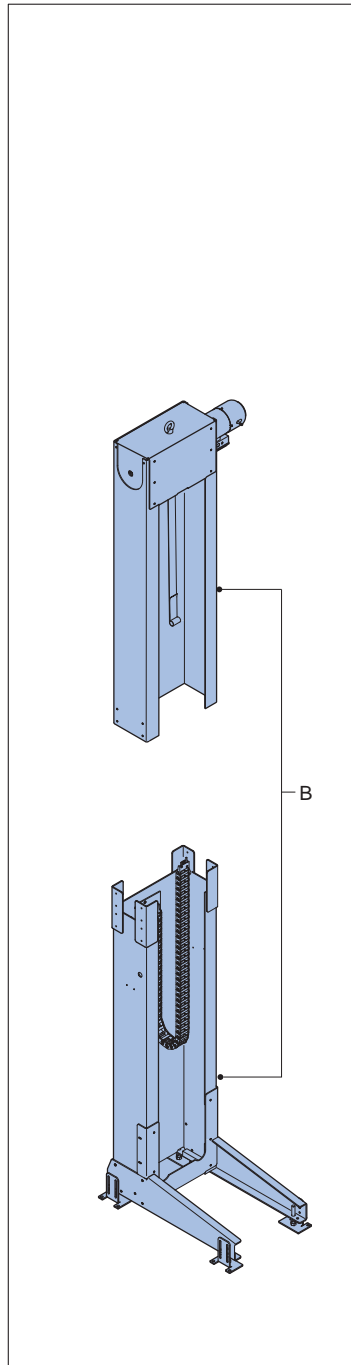
- Training
- Installation assistance
- Service contracts

Contact Qimarox B.V. for more information.

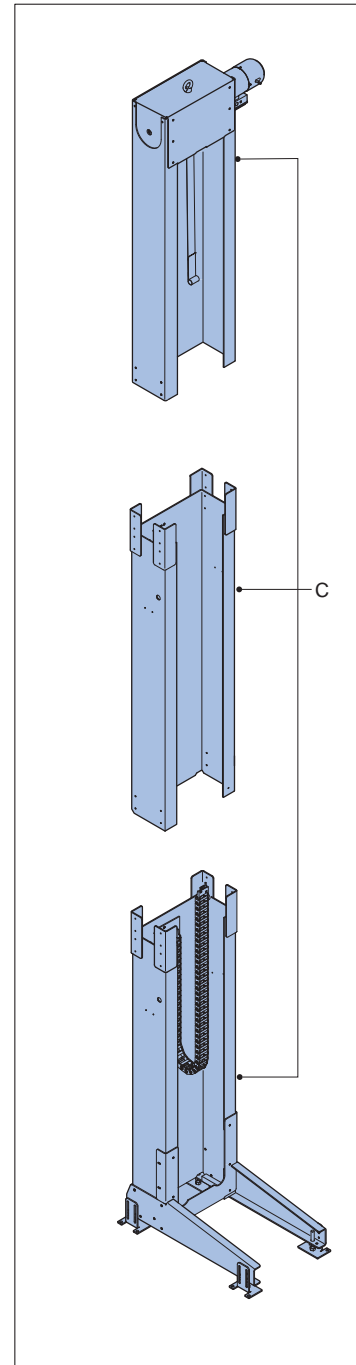
3 Overview PRORUNNER mk1 sections



A Section is a complete unit

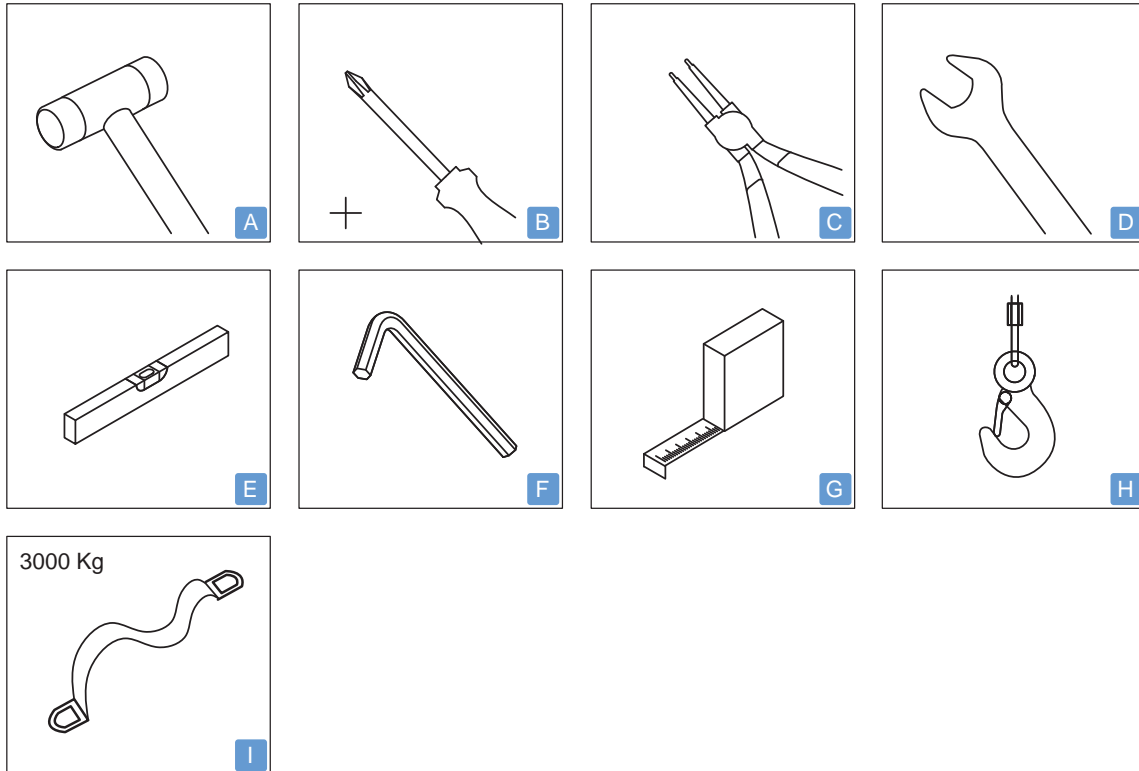


B Section is in two parts



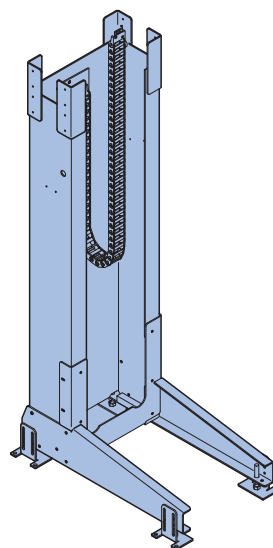
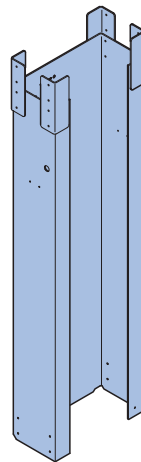
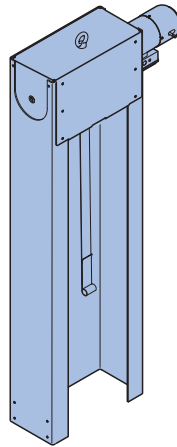
C Section is in three or more parts

4 Required tools and pictograms

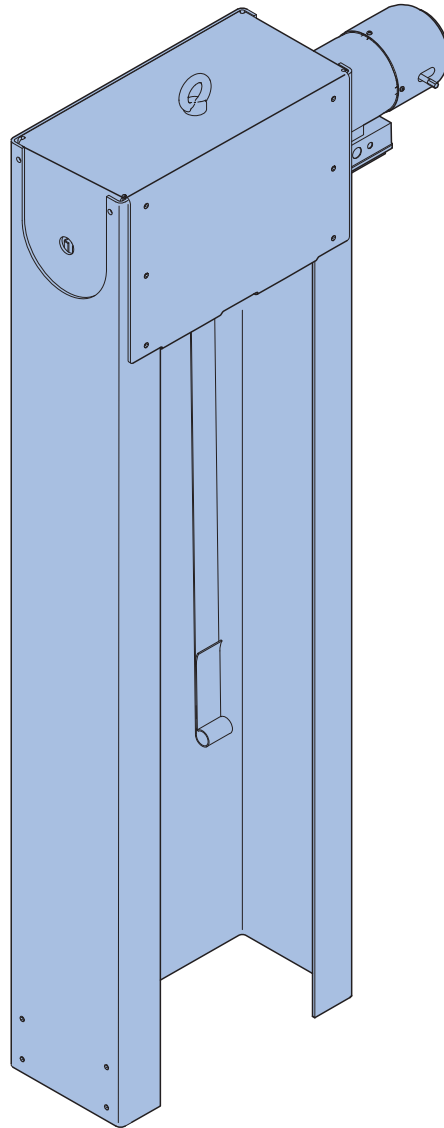


- A Hammer
- B Crosshead screwdriver
- C Pliers
- D Spanner
- E Spirit level
- F Socket head wrench
- G Tape measure
- H Hoist
- I Hoisting belt

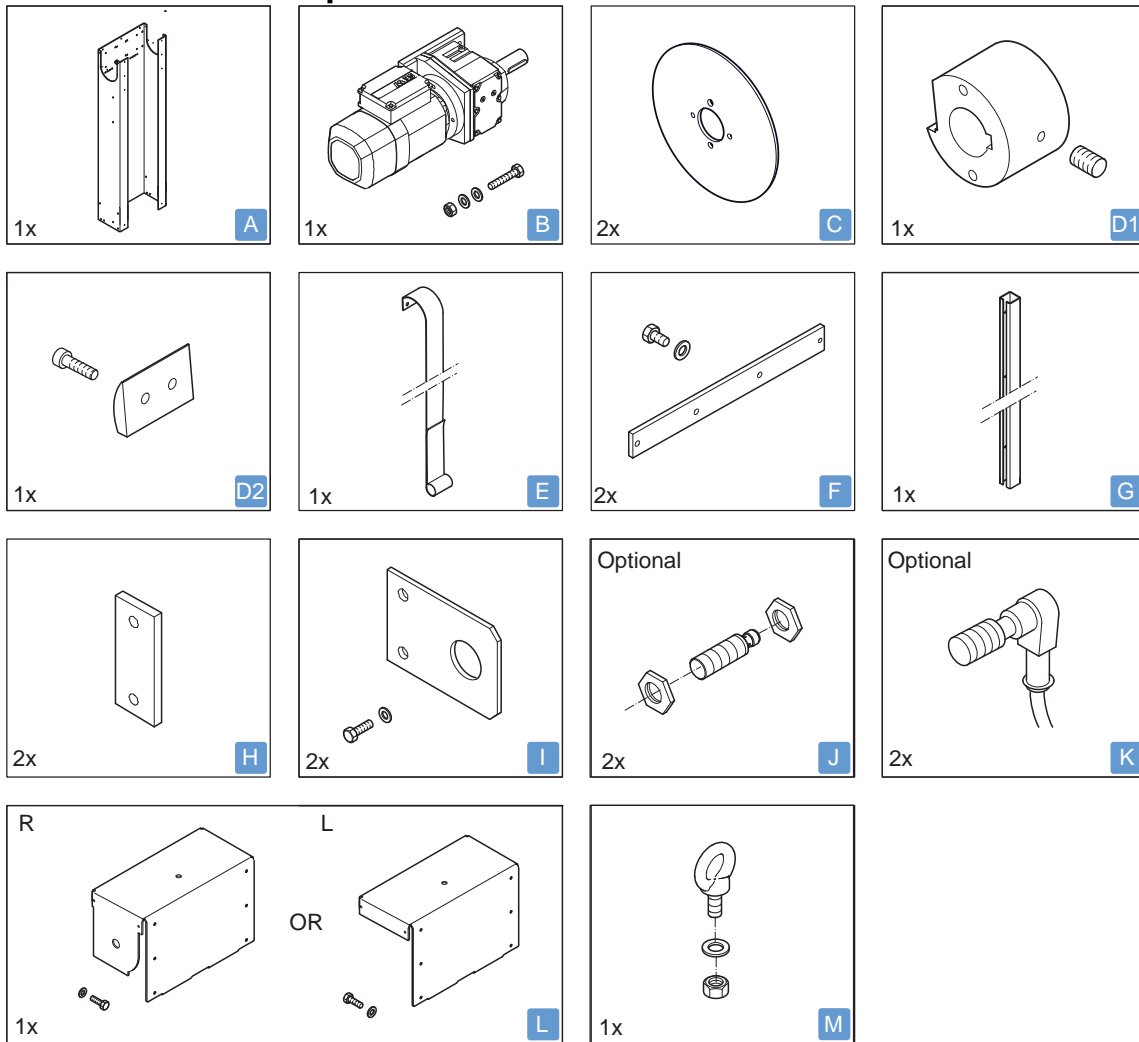
5 Assembly instructions



5.1 Drive section

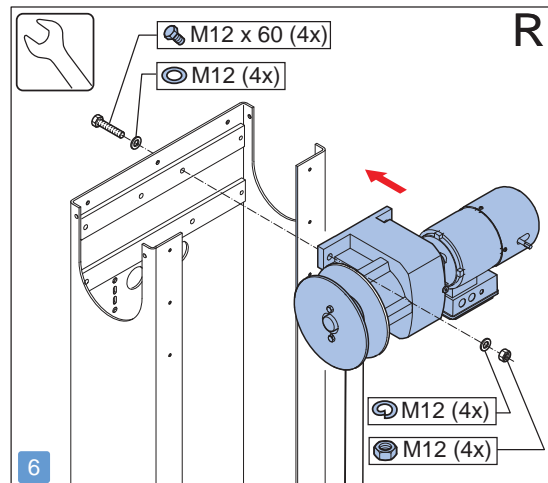
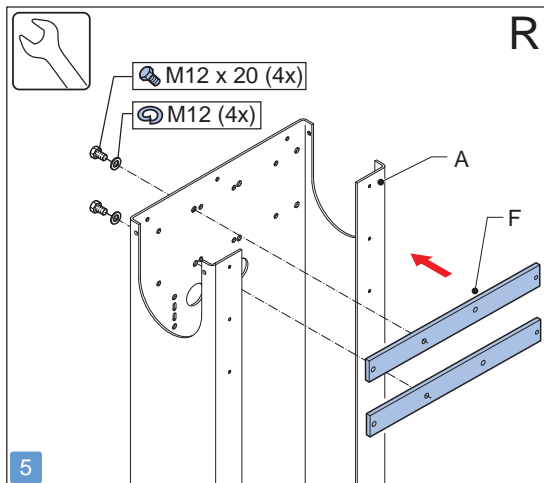
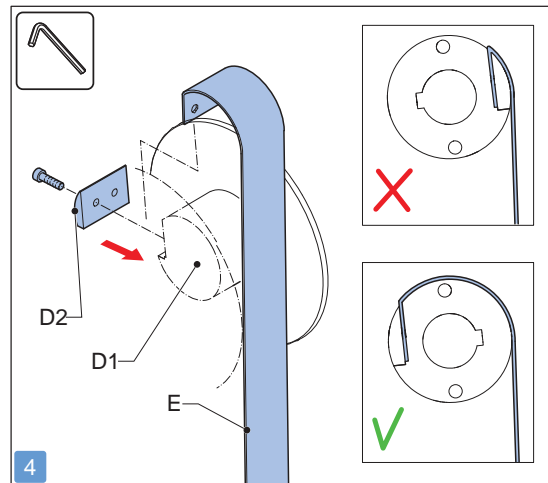
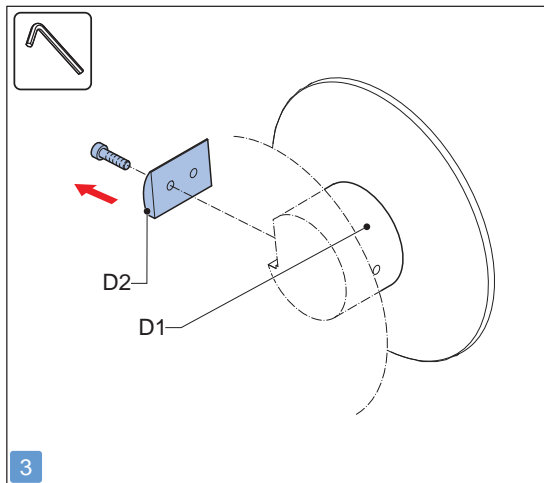
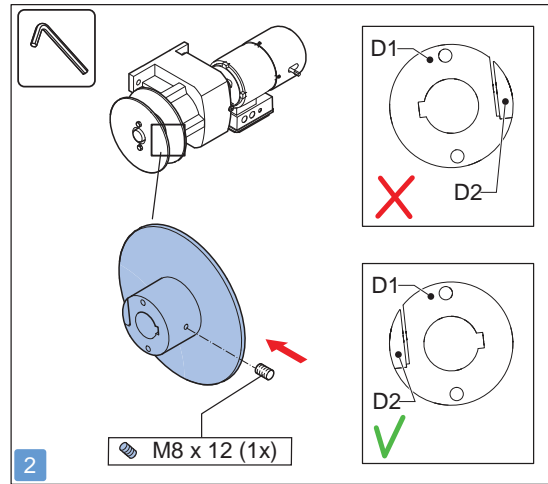
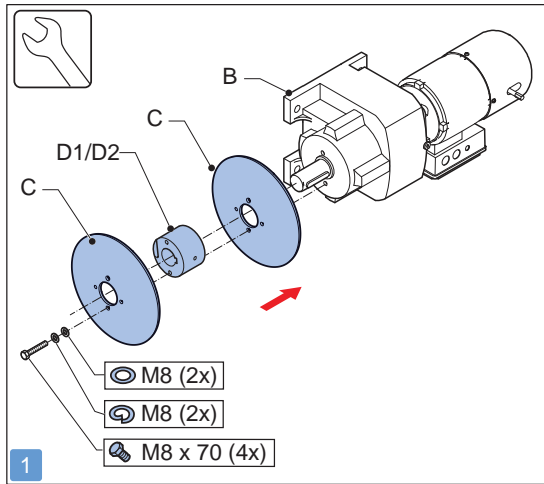


5.1.1 Drive section parts

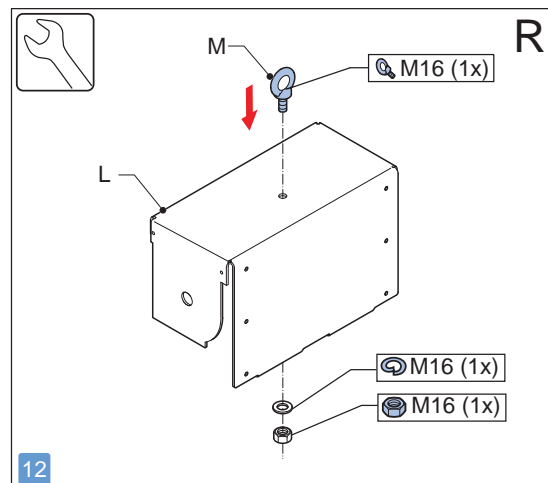
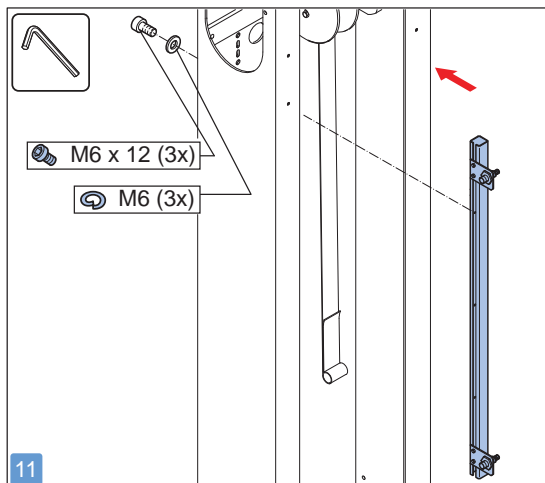
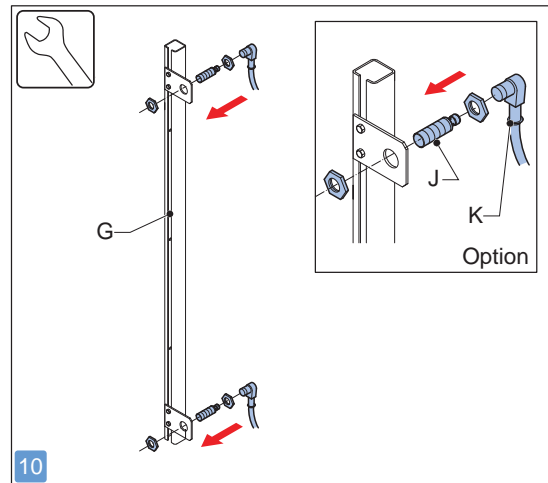
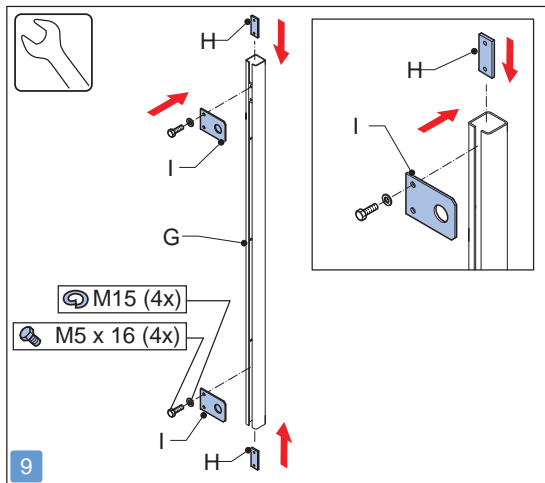
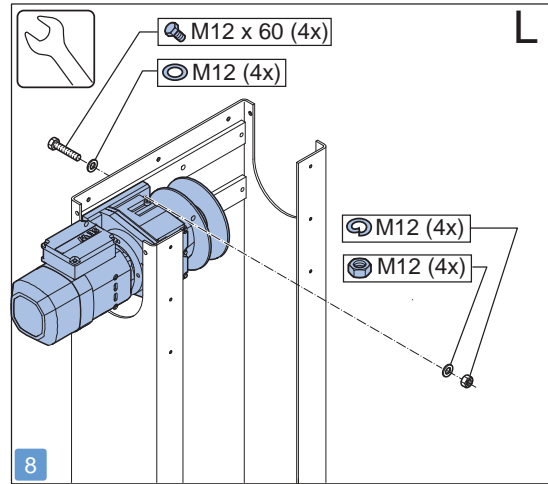
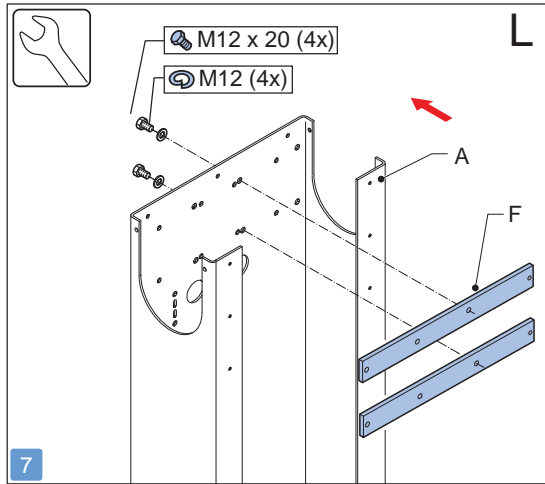


i For the part numbers, see Section 6.1

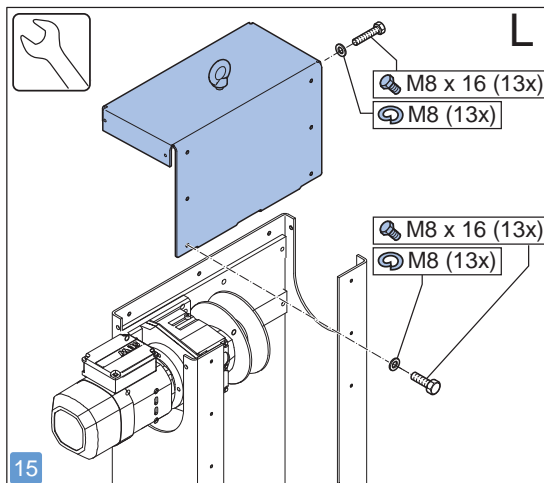
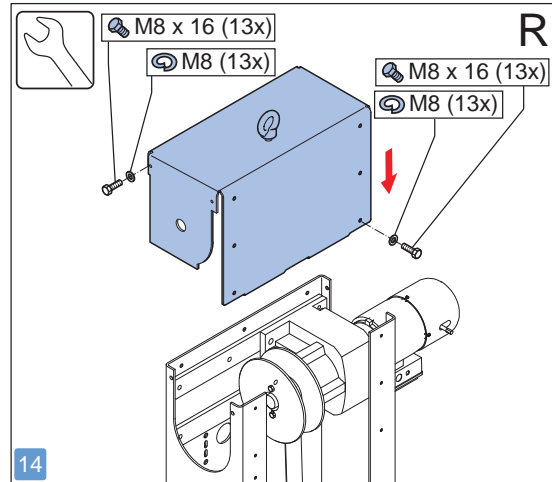
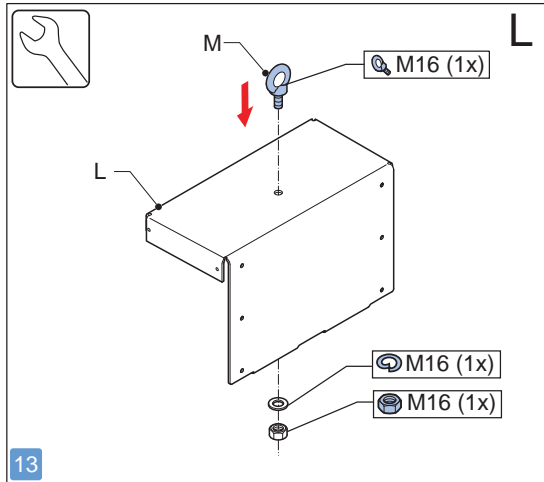
5.1.2 Drive section assembly 1/3



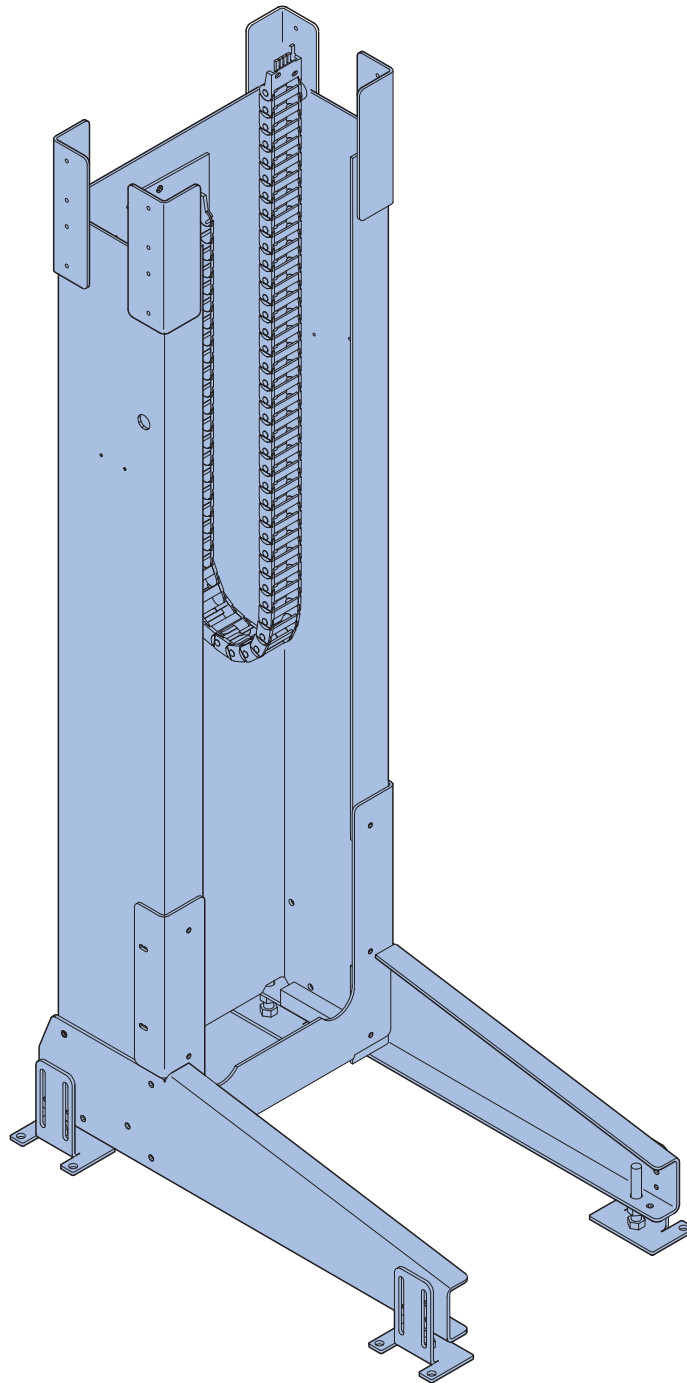
Drive section assembly 2/3



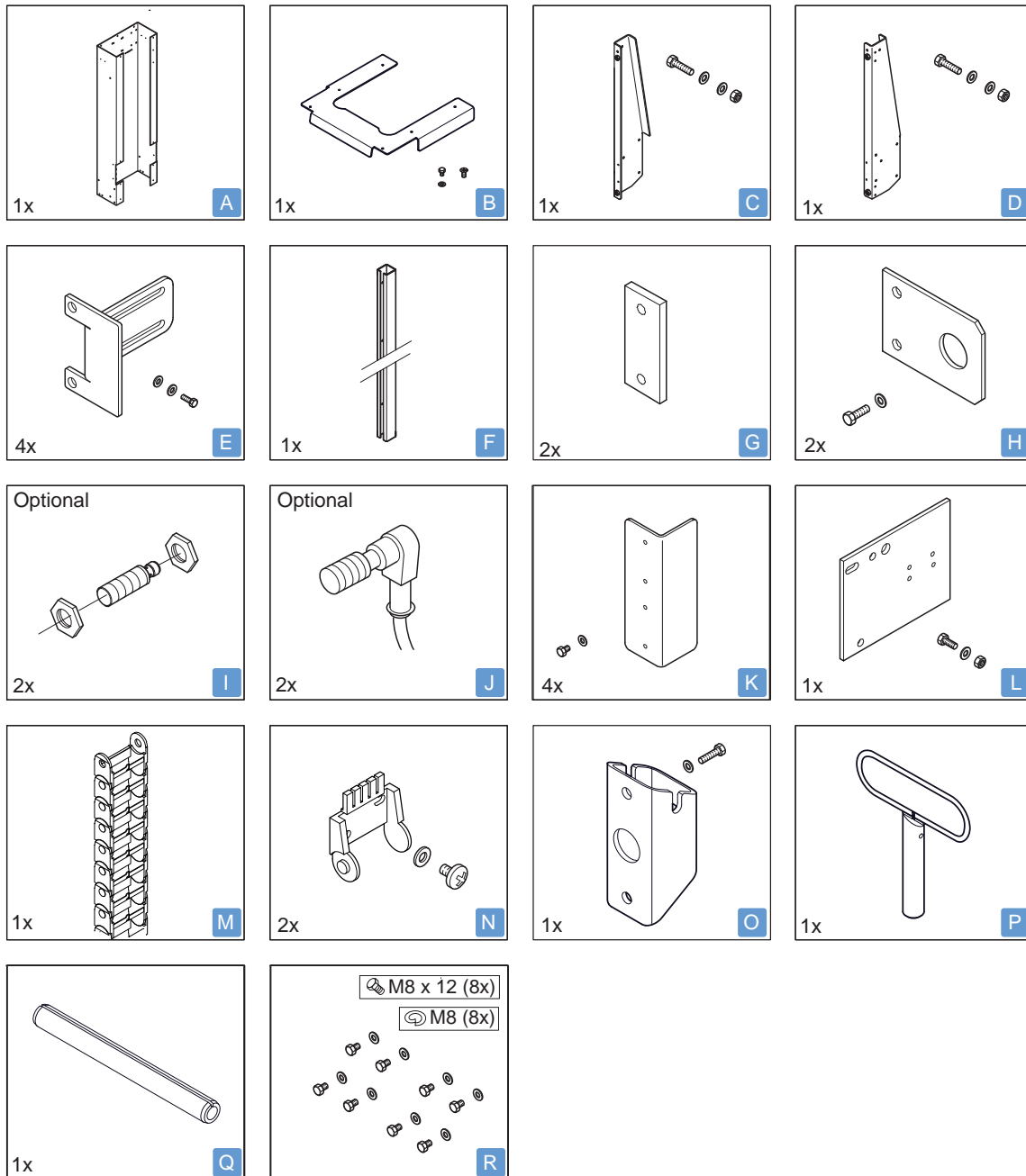
Drive section assembly 3/3



5.2 Lower section



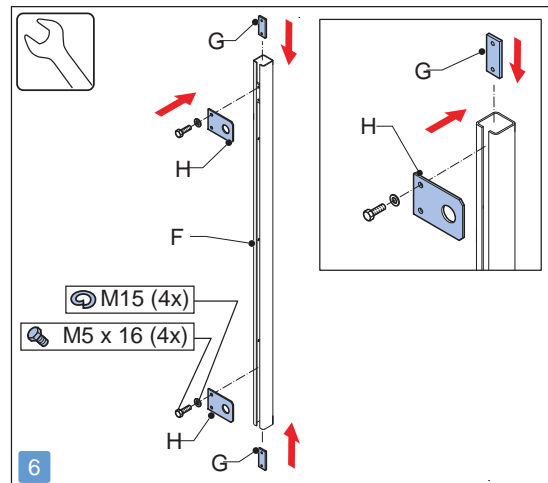
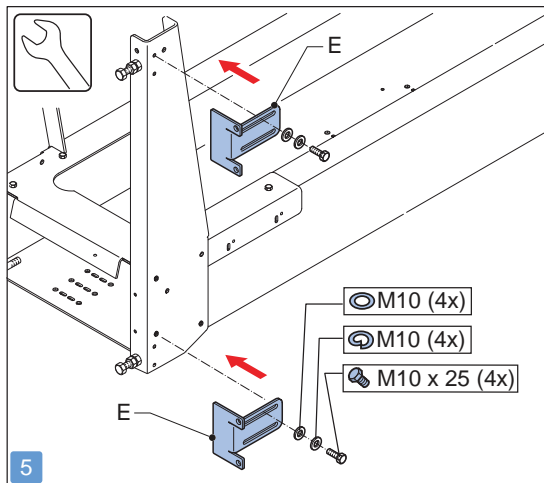
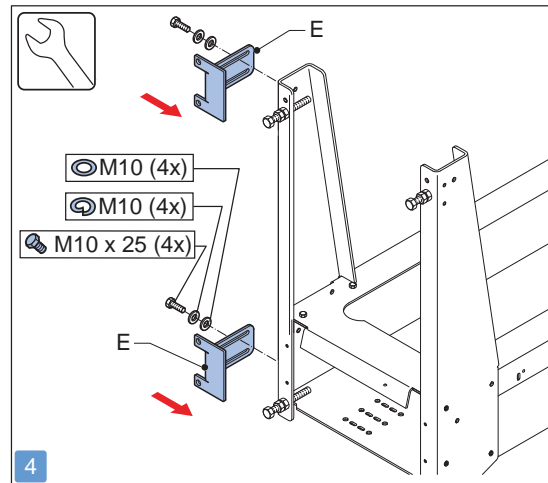
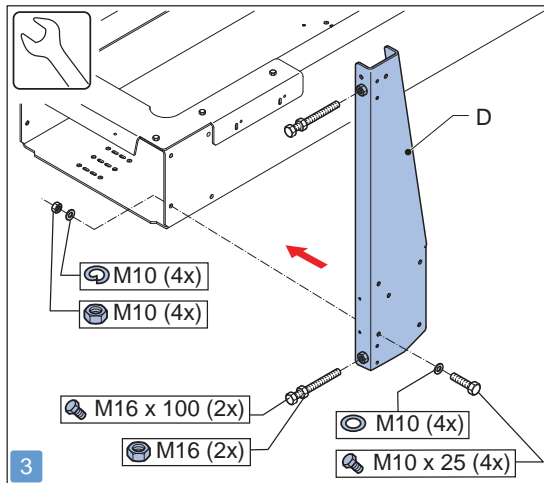
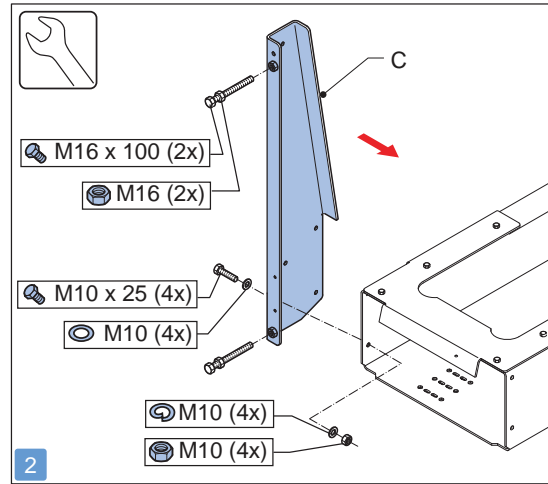
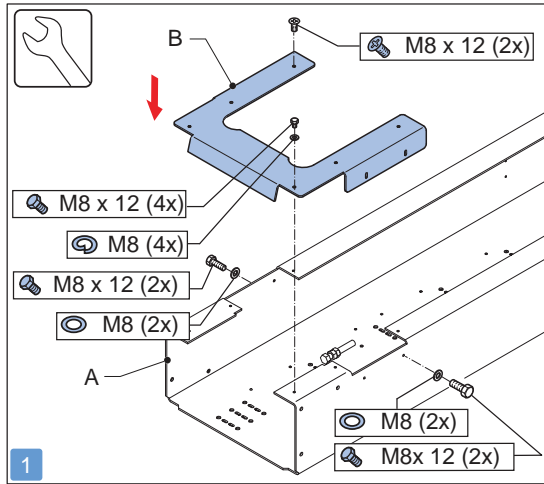
5.2.1 Lower section parts



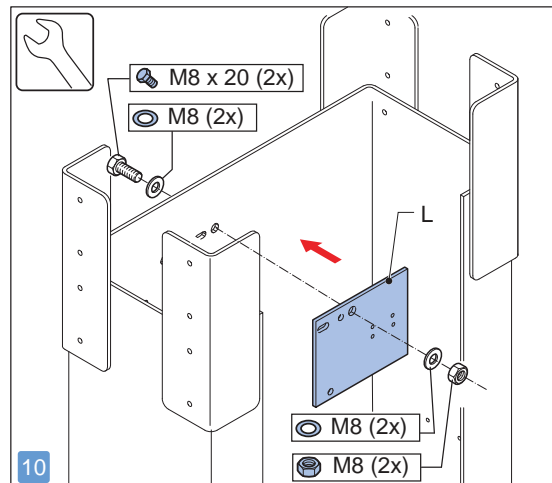
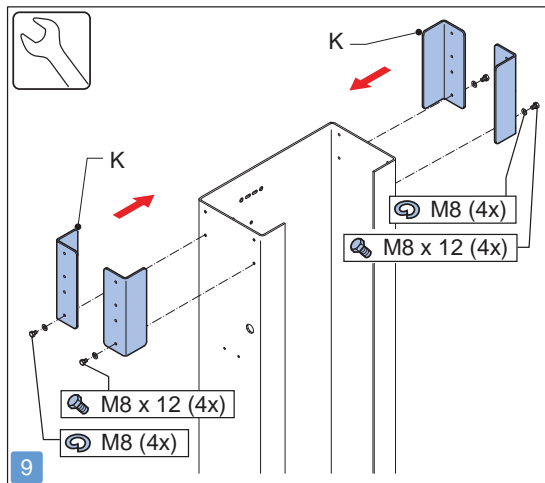
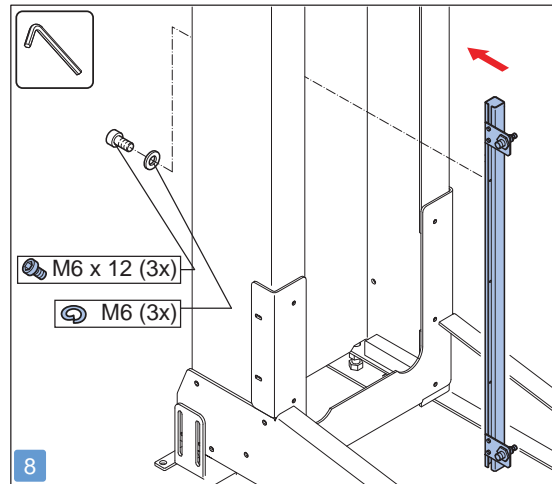
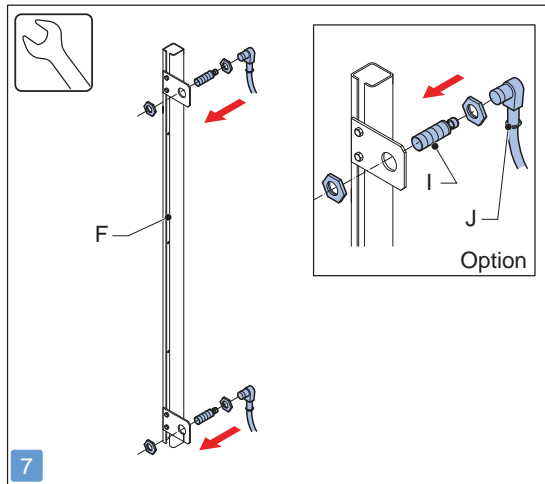
Fit remaining mountings at a later stage

i For the part numbers, see Section 6.2

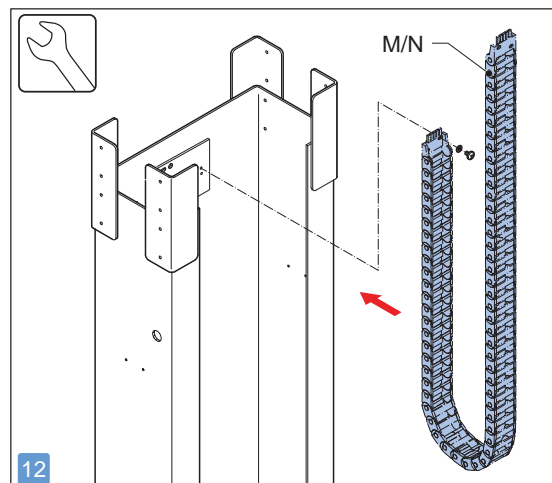
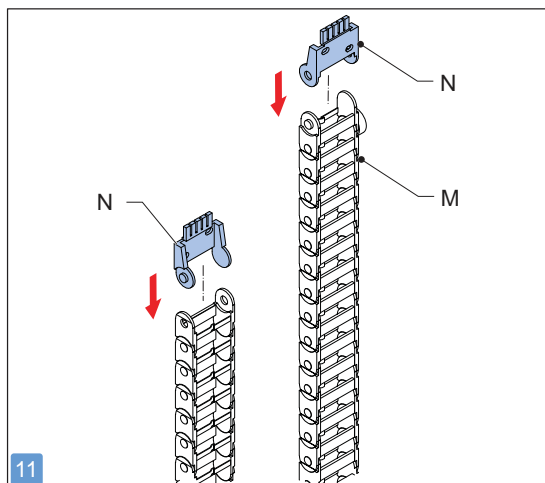
5.2.2 Lower section assembly 1/3



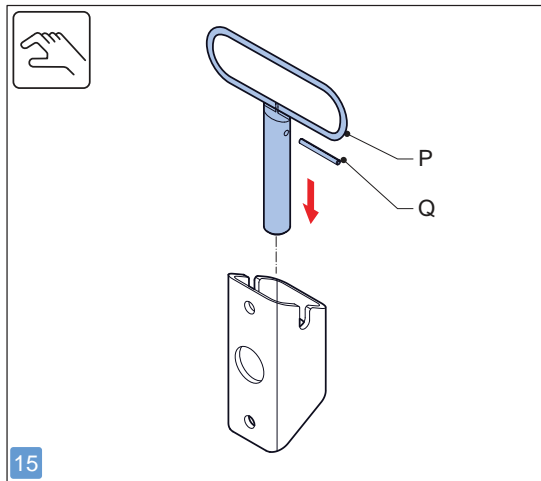
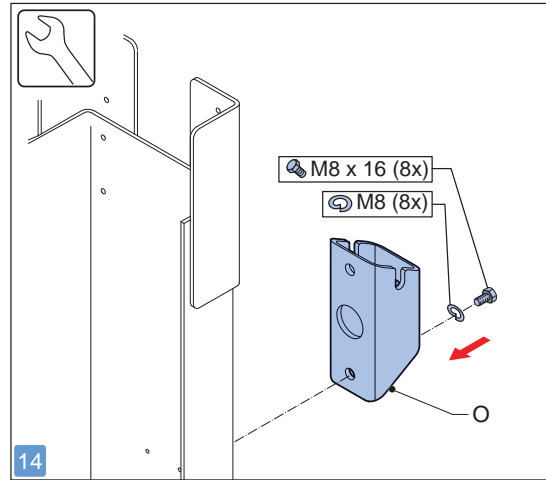
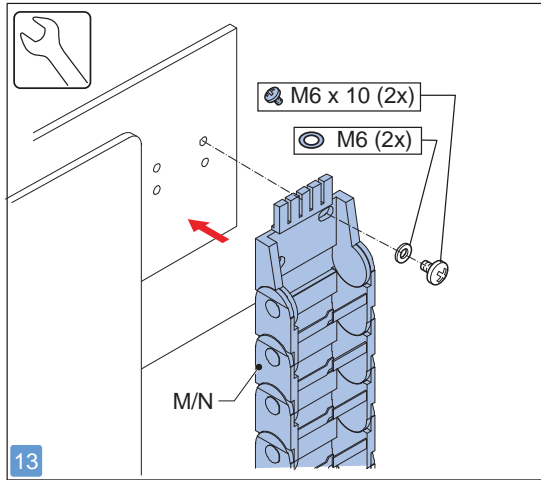
Lower section assembly 2/3



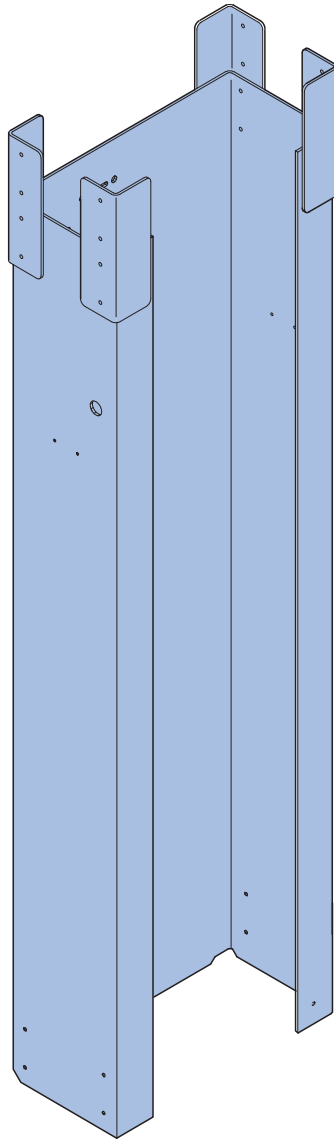
Fit remaining mountings at a later stage



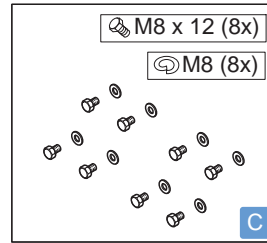
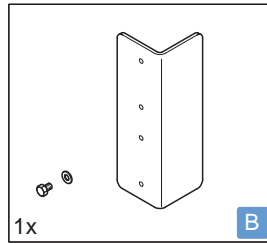
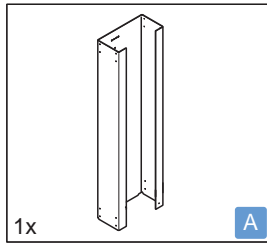
Lower section assembly 3/3



5.3 Centre section



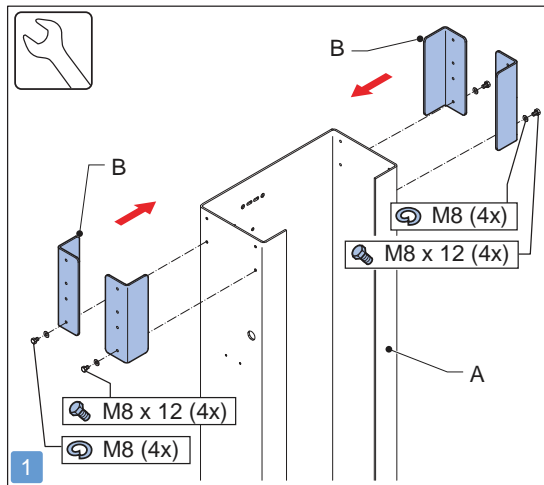
5.3.1 Centre section parts



Fit remaining mountings at a later stage

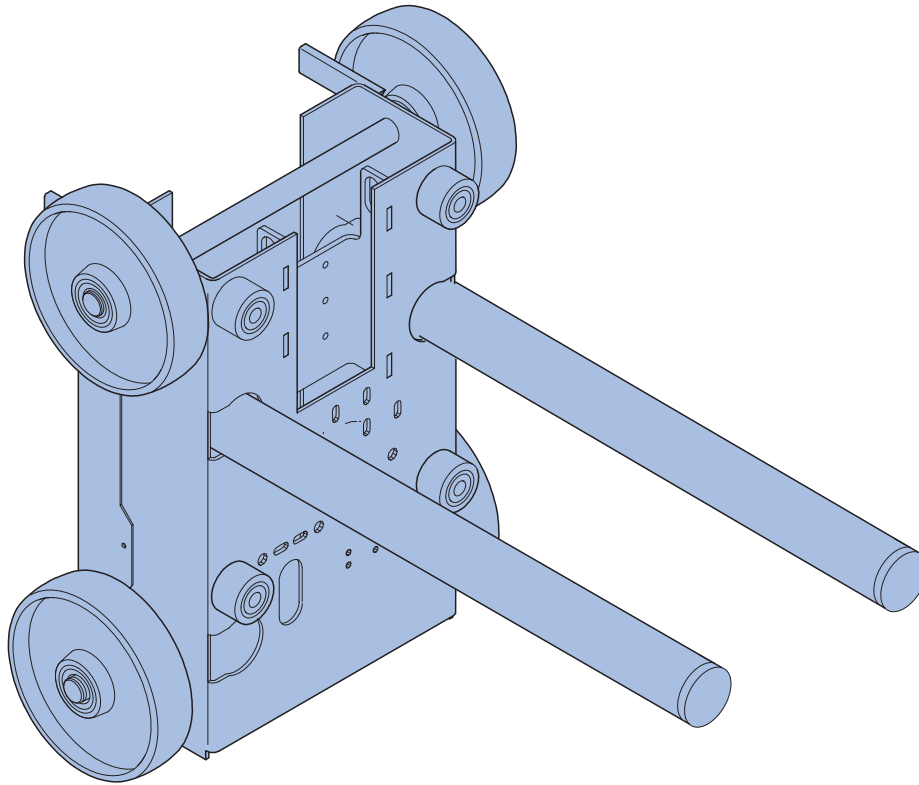
i For the part numbers, see Section 6.3

5.3.2 Centre section assembly 1/1

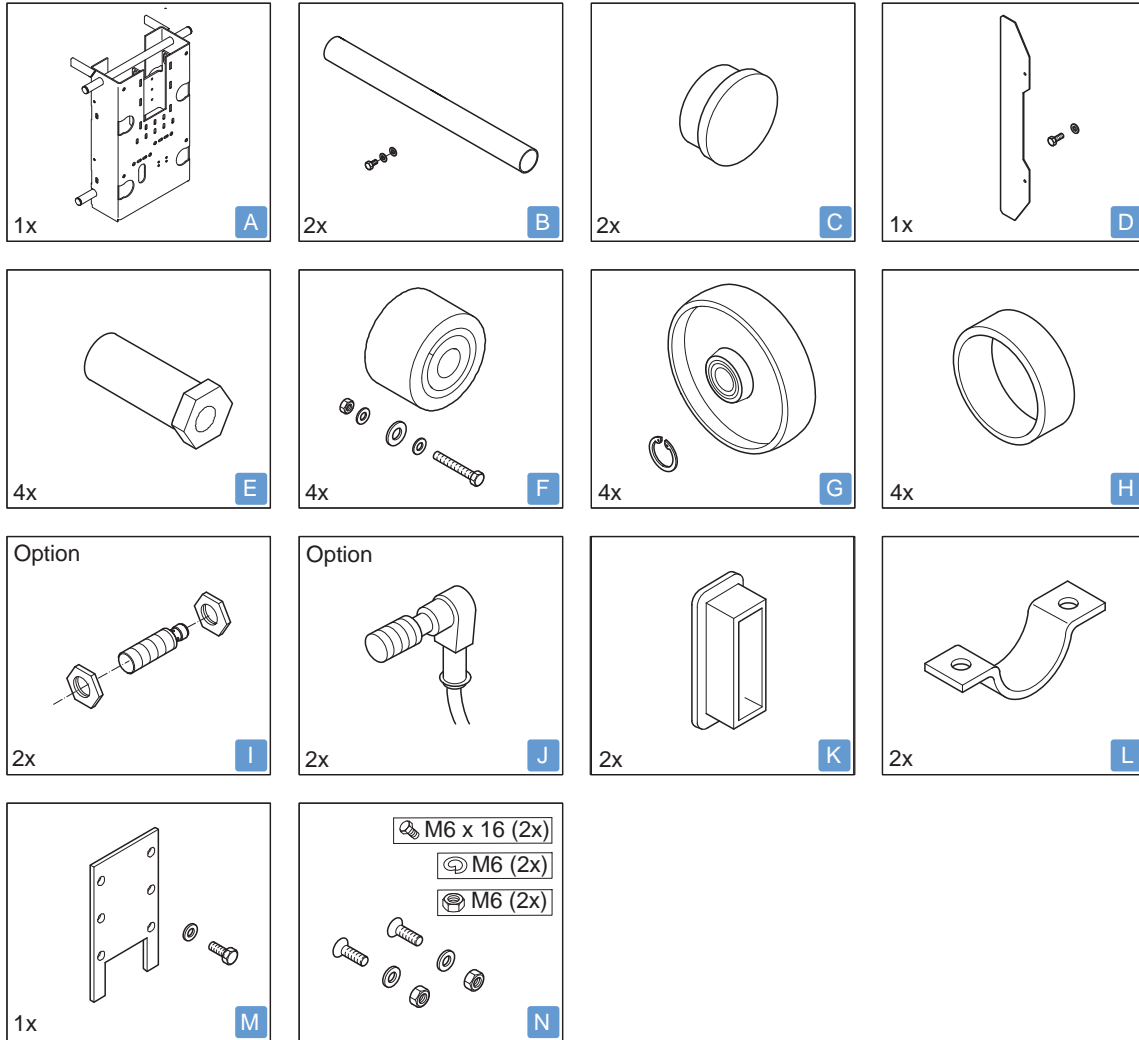


Fit remaining mountings at a later stage

5.4 Trolley



5.4.1 Trolley parts

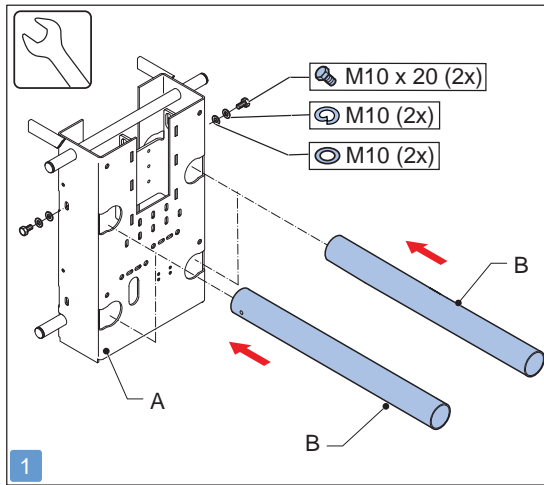


This part is fit at a later stage

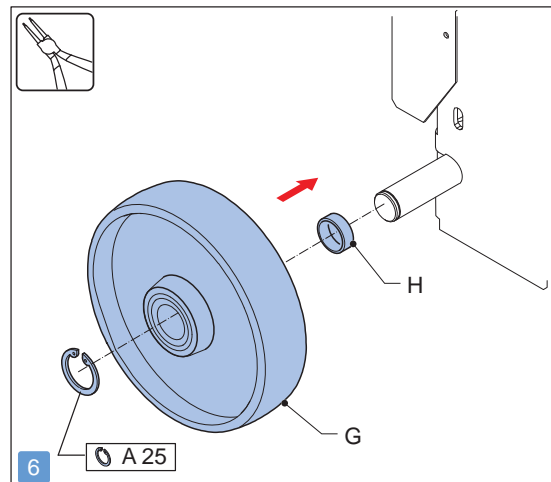
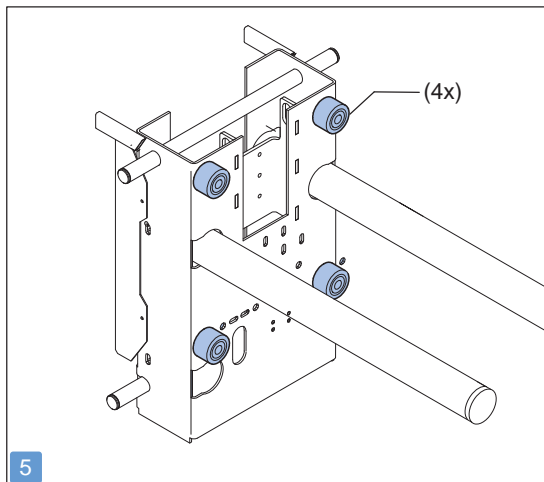
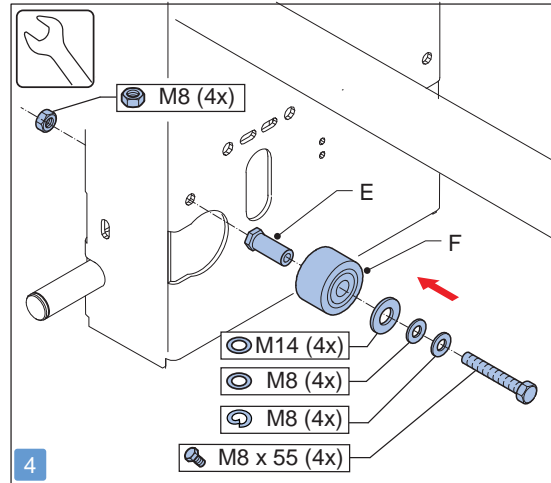
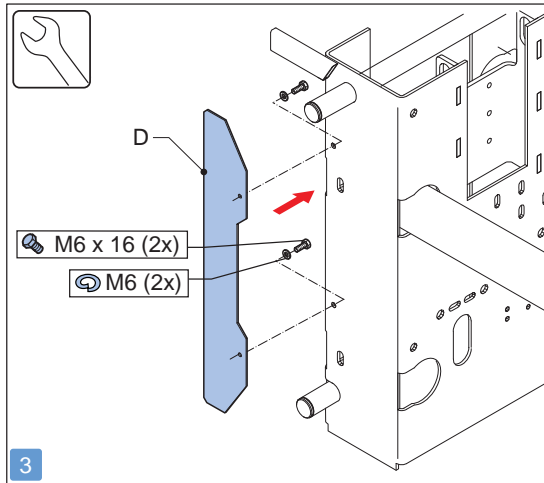
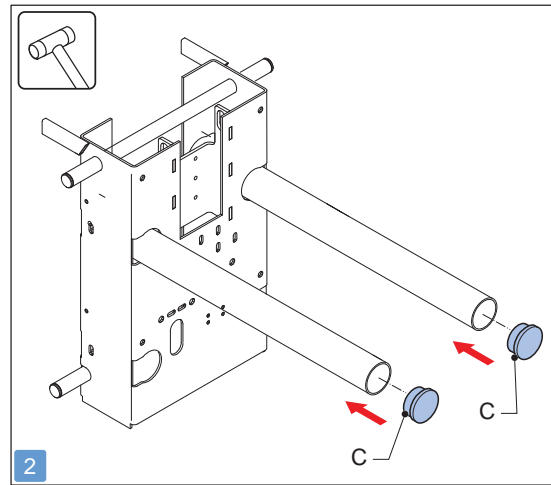
Fit remaining mountings at a later stage

i For the part numbers, see Section 6.4

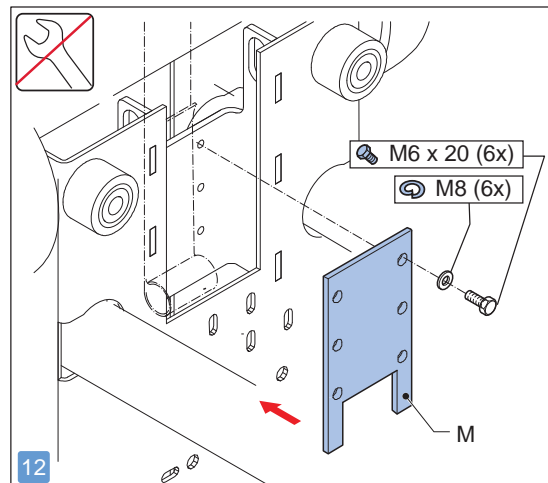
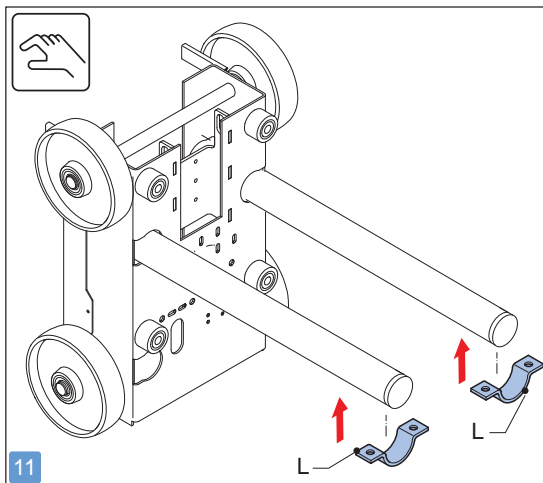
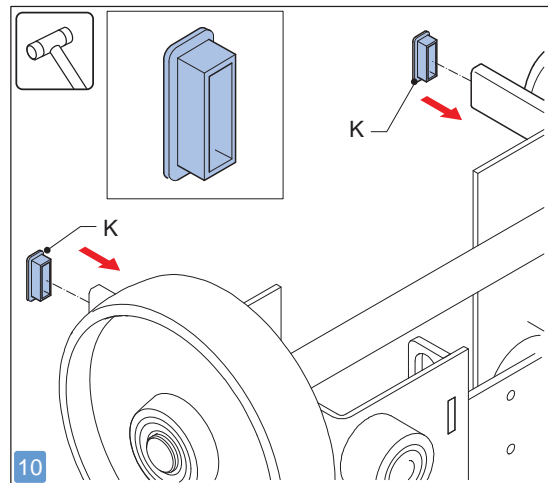
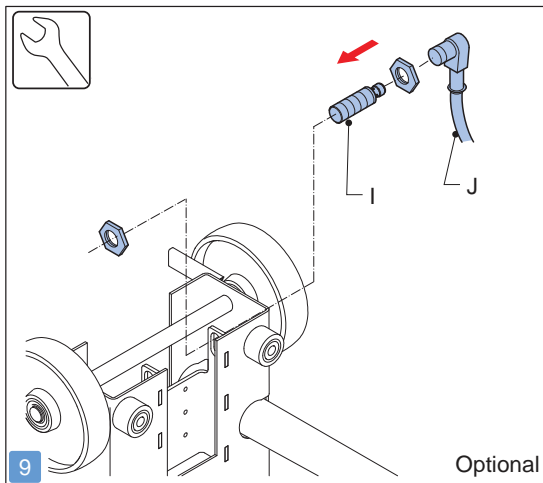
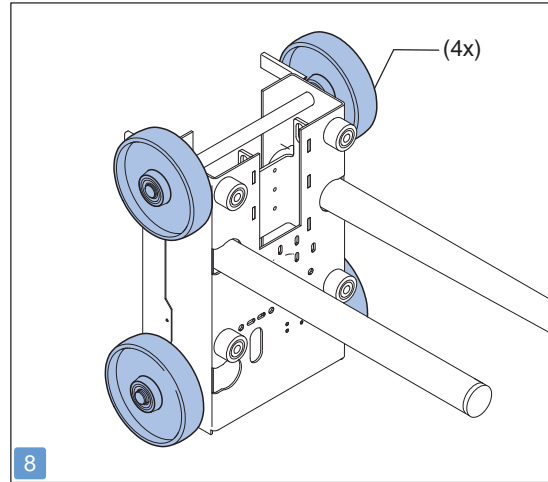
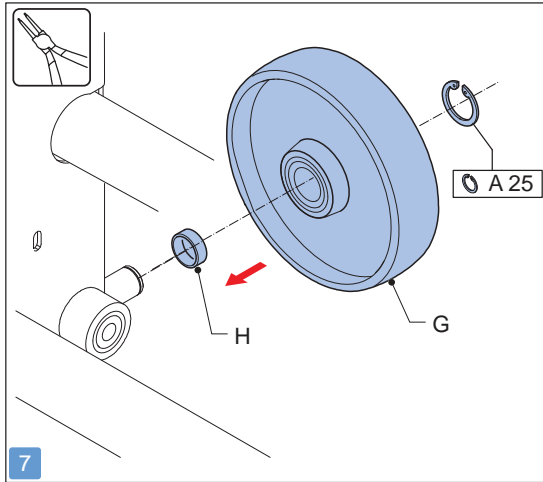
5.4.2 Trolley assembly 1/2



Axes can be mounted on top or underneath

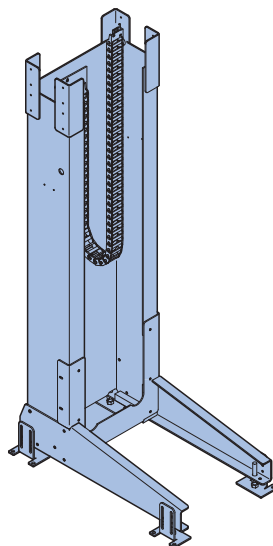
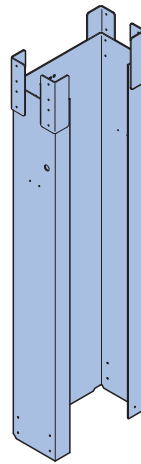
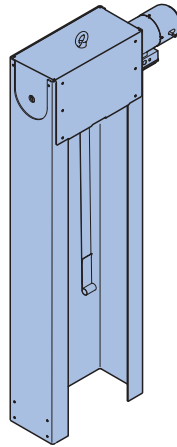


Trolley assembly 2/2

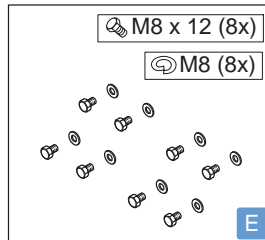
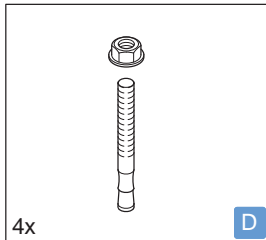
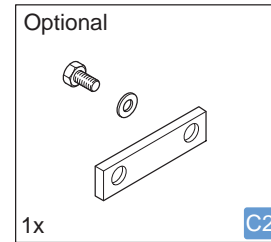
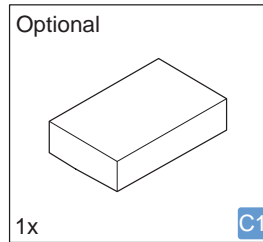
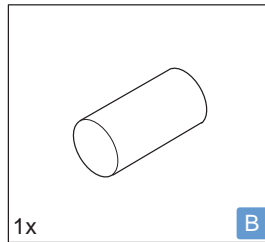
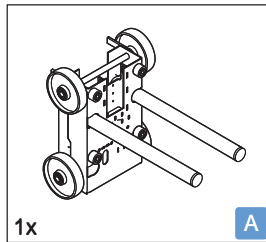


This part is fit at a later stage

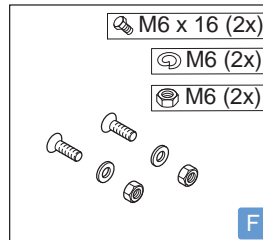
5.5 Subassembly sections



5.5.1 Subassembly section parts



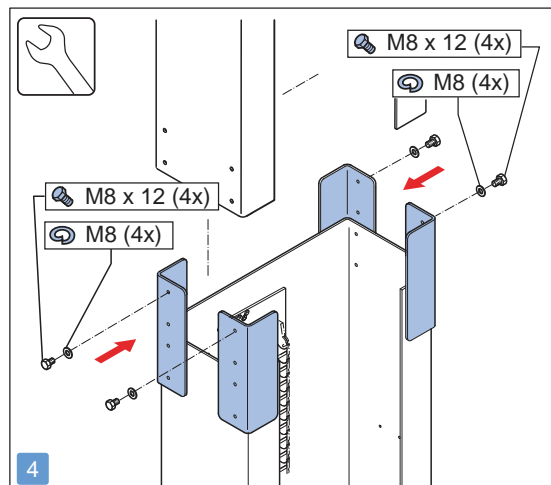
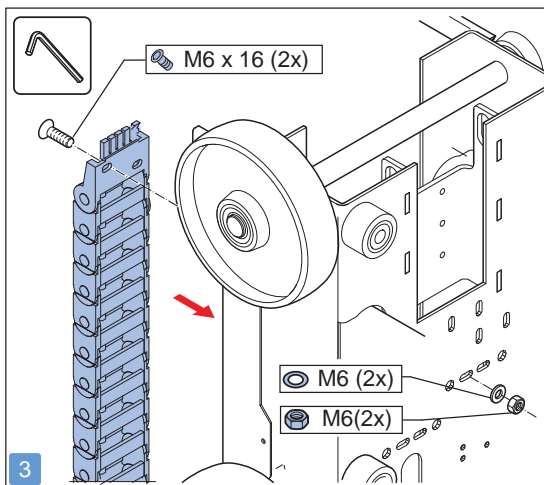
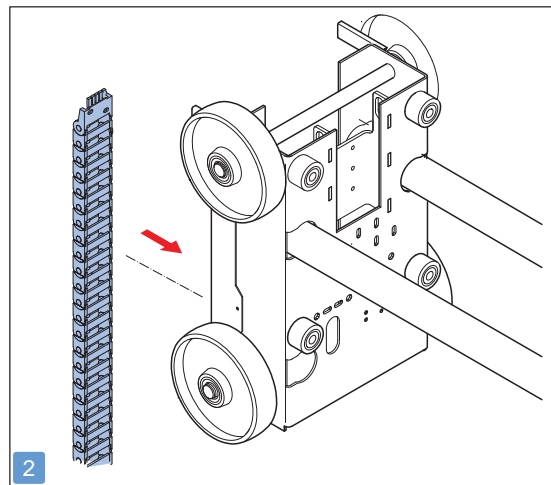
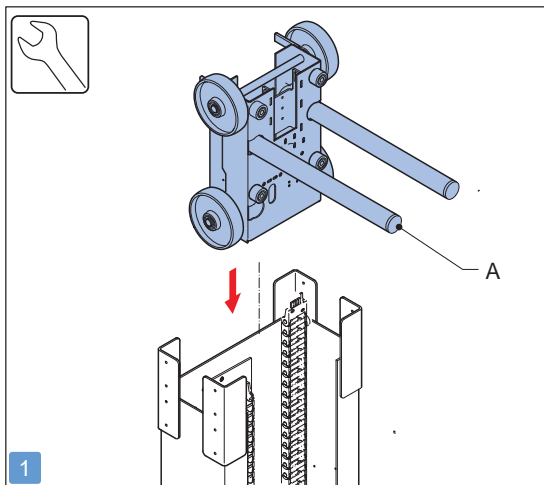
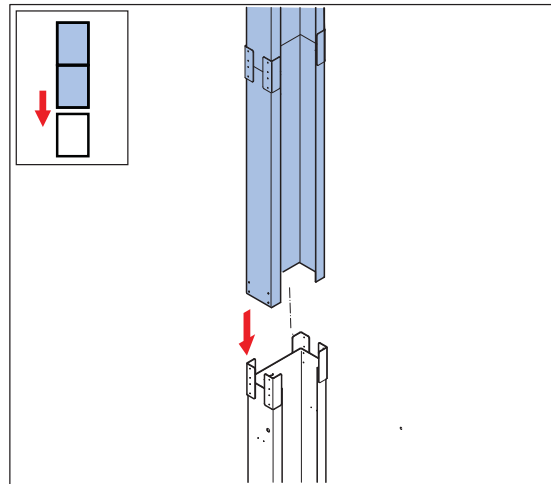
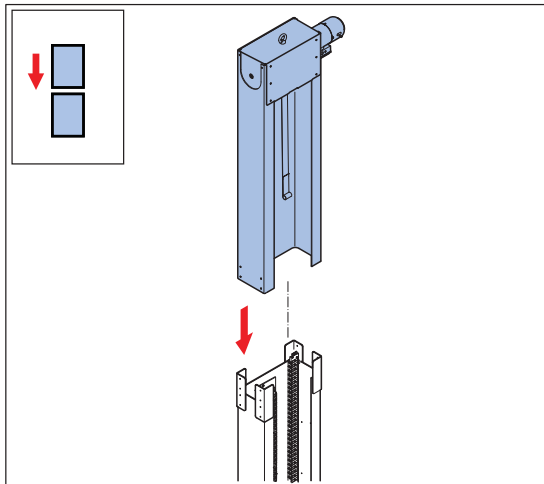
Fit the remaining mountings now



Fit the remaining mountings now

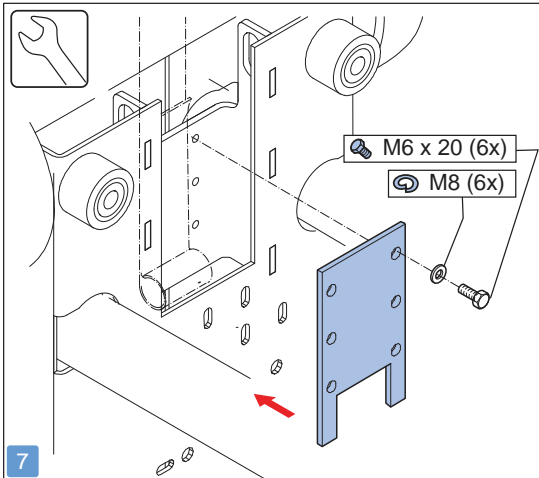
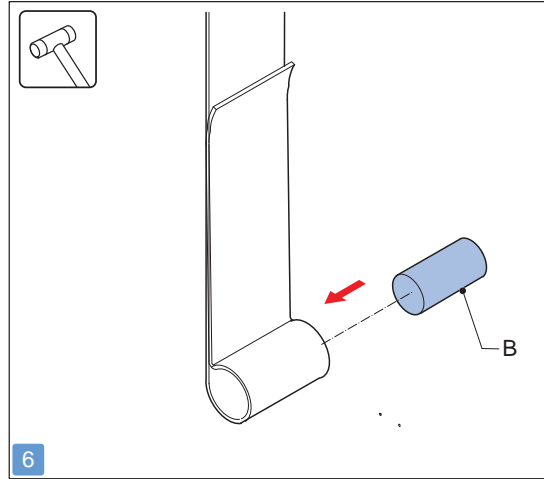
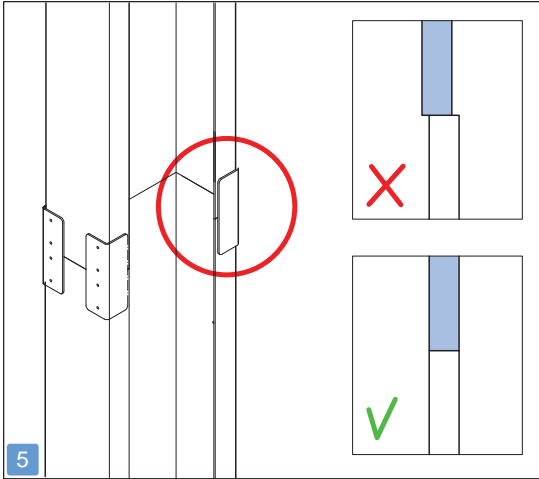
i For the part numbers, see Section 6.5

5.5.2 Drive and tensioning section assembly 1/2

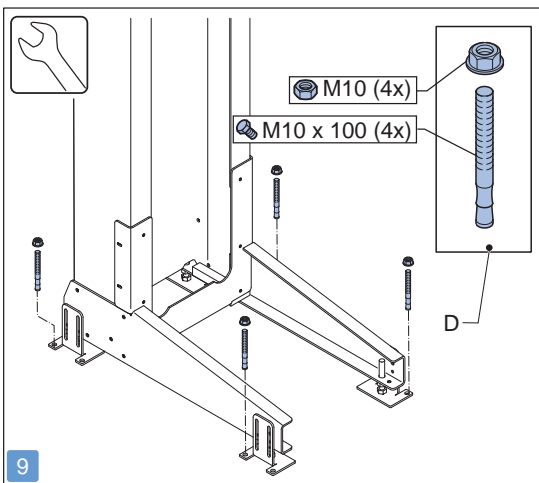
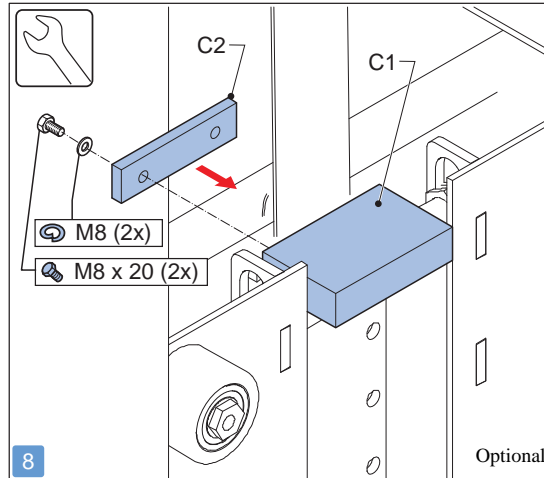


Fit the remaining mountings now

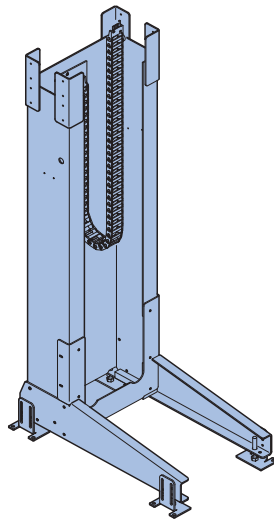
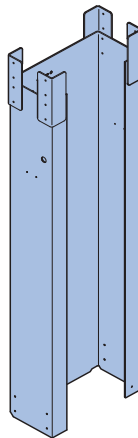
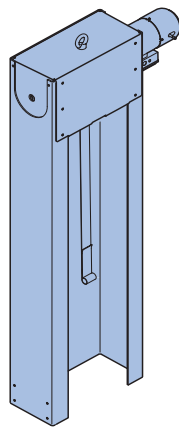
Drive and tensioning section assembly 2/2



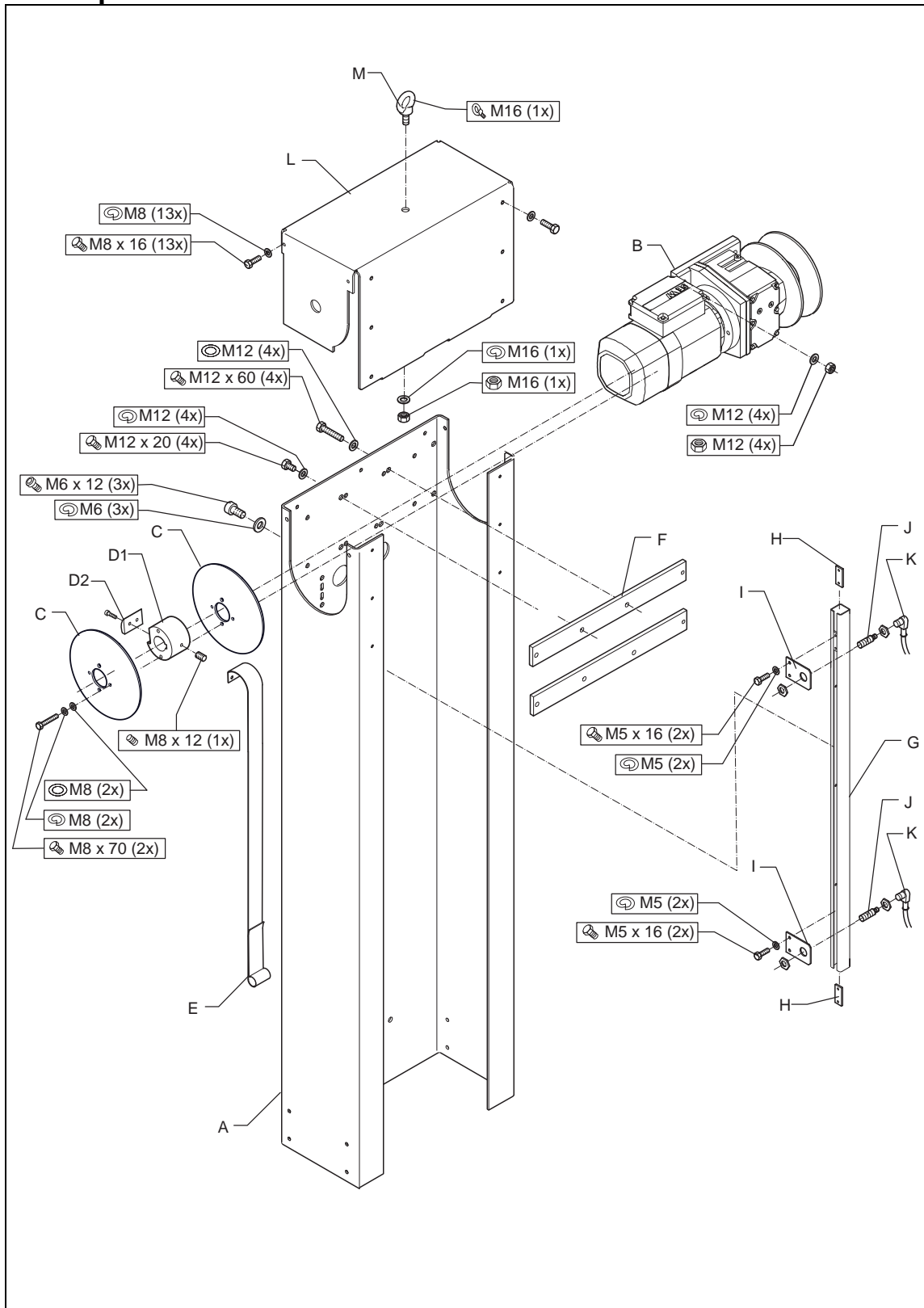
Fit this part now



6 Exploded views



6.1 Exploded view drive section



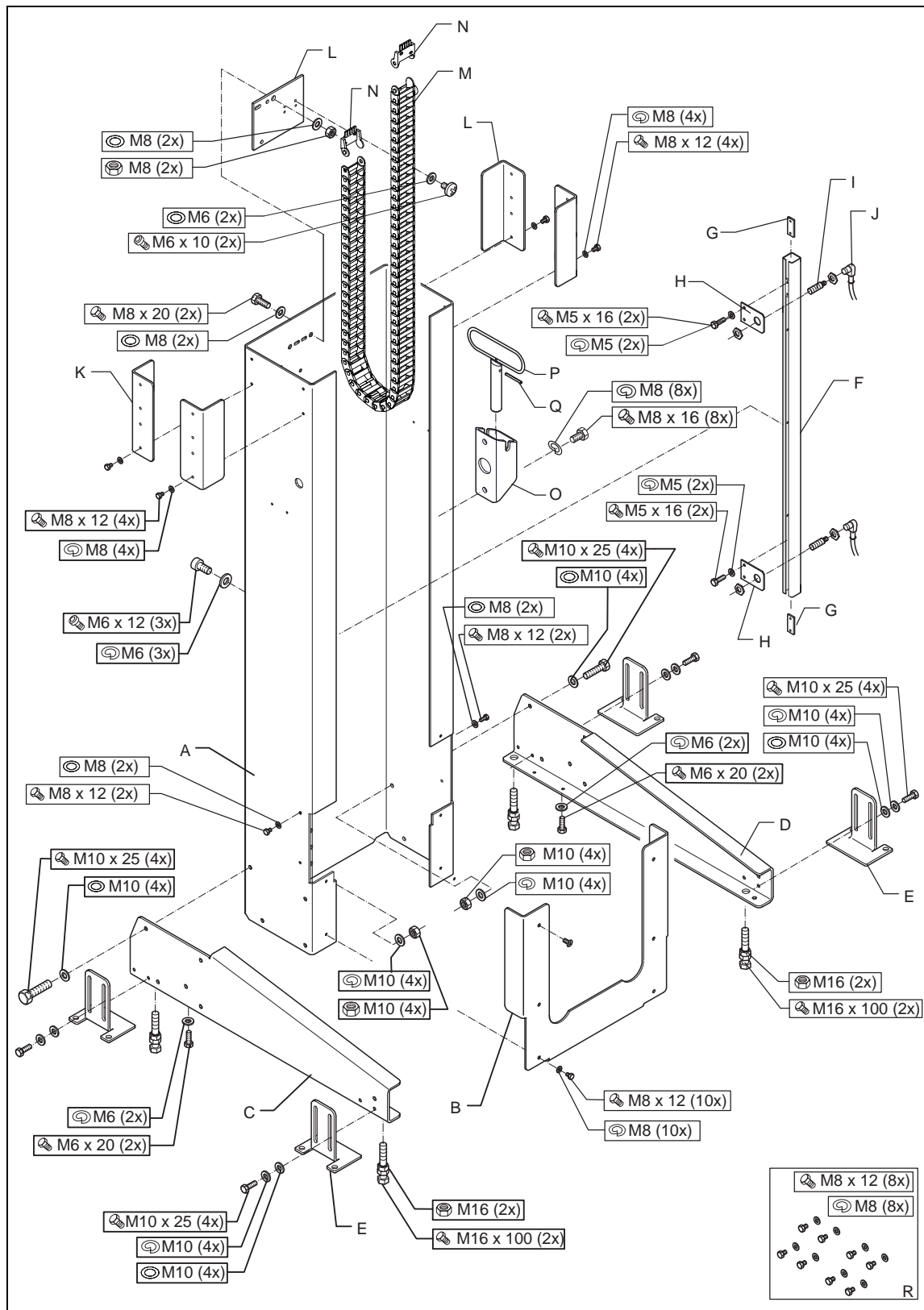
Drive section parts list

Drive section				
Pos	Quantity	Part number	Description (parts)	Notes
A	1	1001128	Frame drive	L = 1475 mm
	1	1001101	Frame drive	L = 1725 mm
	1	1001129	Frame drive	L = 1975 mm
B	1		Motor reductor	
C	2	100174	Track disk	STL
	2	100827	Track disk	RVS
D1	1	1001076	Winding hub	ø79 / ø35 L = 55 mm
D2	1	1001077	Clamping plate winding hub	
E	1	1001049	Flat geared belt	50P2 / STL
F	2	1001083	Mounting R57	
G	1	1000842	C-profile	
H	2	1000127	Nut plate	M5 pc. 32
I	2	1000841	Bracket approach	
J	2	1000932	Inductive sensor	
K	2	1001326	Prefab cable PVC-OB	L = 5 m
L	1	1001084	Column cover	Right
L	1	1001099	Column cover	Left
M	1	1001103	Eye bolt	M16

Drive section mounting materials

Drive section			
Quantity	Part number	Description (mounting mat.)	Notes
1	1000126	Hexagon nut	M16
1	1000883	Spring washer	M16
13	1000209	Hexagon stud bolt	M8 x 16
15	1000398	Spring washer	M8
4	1001313	Hexagon stud bolt	M5 x 16
4	1000396	Spring washer	M5
5	1001312	Cylinder screw hexagon socket	M6 x 12
3	1000174	Spring washer	M6
4	1001323	Hexagon stud bolt	M12 x 20
8	1000173	Spring washer	M12
4	1001324	Hexagon stud bolt	M12 x 60
4	1000150	Flat washer	M12
4	1001325	Hexagon nut	M12
1	1000385	Adjusting screw hexagon socket	M8 x 12
2	1000878	Hexagon stud bolt	M8 x 70
2	1000149	Flat washer	M8

6.2 Exploded view lower section



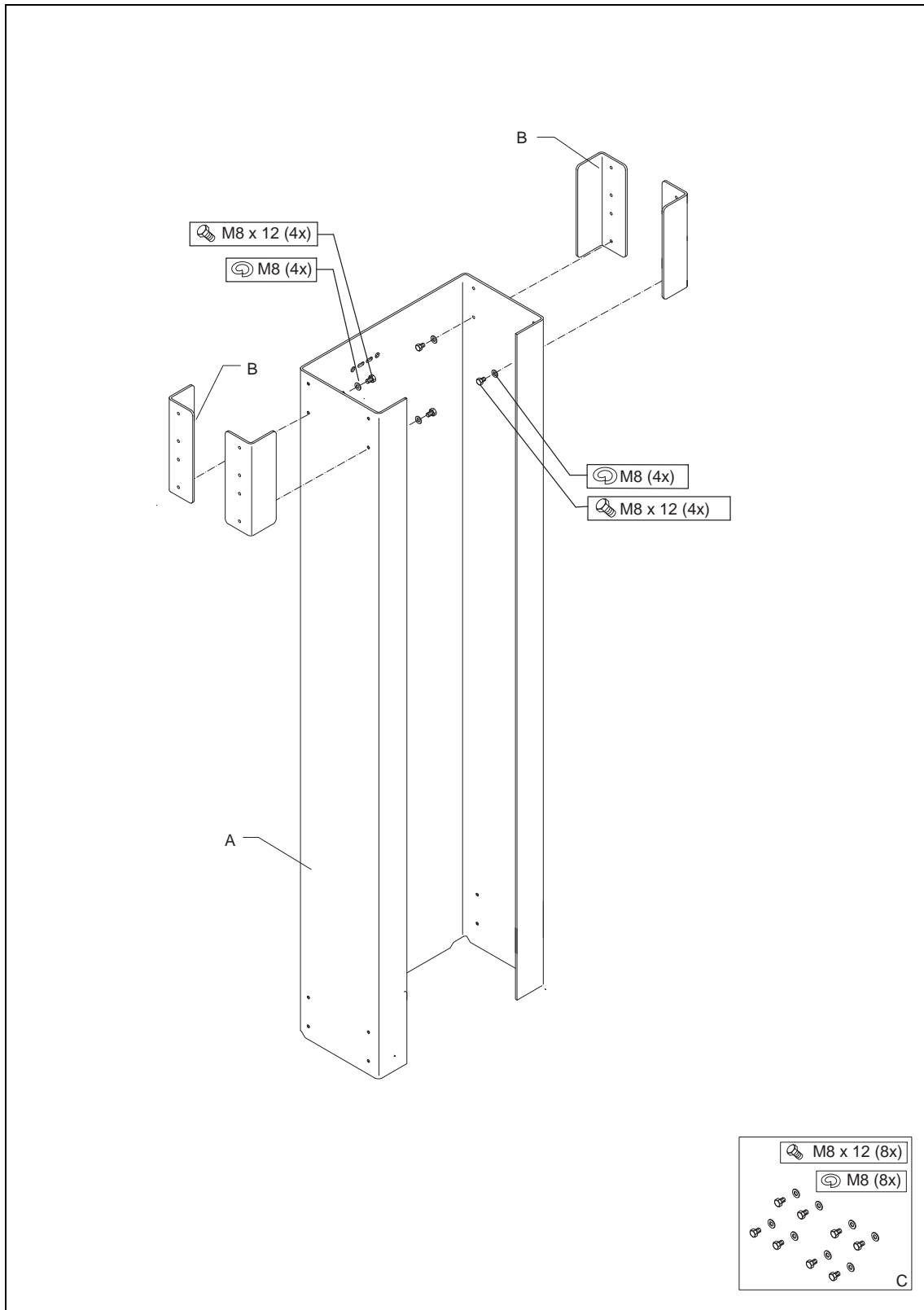
Lower section parts list

Tensioning section				
Pos	Quantity	Part number	Description (parts)	Notes
A	1	1001139	Frame bottom	L = 1475 mm
	1	1001140	Frame bottom	L = 1725 mm
	1	1001141	Frame bottom	L = 1975 mm
B	1	1001085	Bottom cover	STL
	1	1000834	Bottom cover	RVS
C	1	1001086	Foot left	
D	1	1001098	Foot right	
E	4	1000164	Adjustment/anchor hook line	
F	1	1000842	C-profile	50PS / STL
G	2	1000127	Nut plate	
H	2	1000841	Bracket approach	
I	2	1000932	Inductive sensor	
J	2	1001326	Prefab cable PVC-OB	L = 5 mtr
K	4	1001092	Coupling profile column	
L	1	1001093	Attachment of cable track	
M	1	1000923	Cable track link	Z.14.4.100.0
N	1	1000925	Cable track connecting set	114.4.12P2
O	1	1002922	Safety pin	STL
	1	xxxxxxx	Safety pin	RVS
P	1	1002920	Holder safety clamp	STL
	1	xxxxxxx	Holder safety clamp	RVS
Q	1	1002921	Bush	STL $\varnothing 3 \times 30$
	1	xxxxxxx	Bush	RVS $\varnothing 3 \times 30$

Lower section mounting materials

Tensioning section			
Quantity	Part number	Description (mounting mat.)	Notes
16	1000194	Hexagon stud bolt	M10 x 25
16	1000147	Flat washer	M10
16	1000172	Spring washer	M10
8	1000125	Hexagon nut	M8
4	1000196	Hexagon stud bolt	M16 x 100
4	1000126	Hexagon nut	M16
8	1000125	Hexagon nut	M8
2	1001175	Hexagon stud bolt	M8 x 20
2	1000050	Locknut	M8
4	1000149	Flat washer	M8
2	1001310	Round head cylinder screw	M6 x 10
2	1000148	Flat washer	M6
18	1001311	Hexagon stud bolt	M8 x 12
20	1000398	Spring washer	M8
4	1001218	Spring washer	M8
3	1001312	Cylinder screw	M6 x 12
3	1000174	Spring washer	M6
4	1001313	Hexagon stud bolt	M5 x16
4	1000396	Spring washer	M5
12	1001311	Hexagon stud bolt	M8 x12
12	1000149	Flat washer	M8
2	1000209	Hexagon stud bolt	M8 x16
2	1001217	Hexagon stud bolt	M8 x 16
2	1002912	Hexagon stud bolt	M8 x 12

6.3 Exploded view centre section



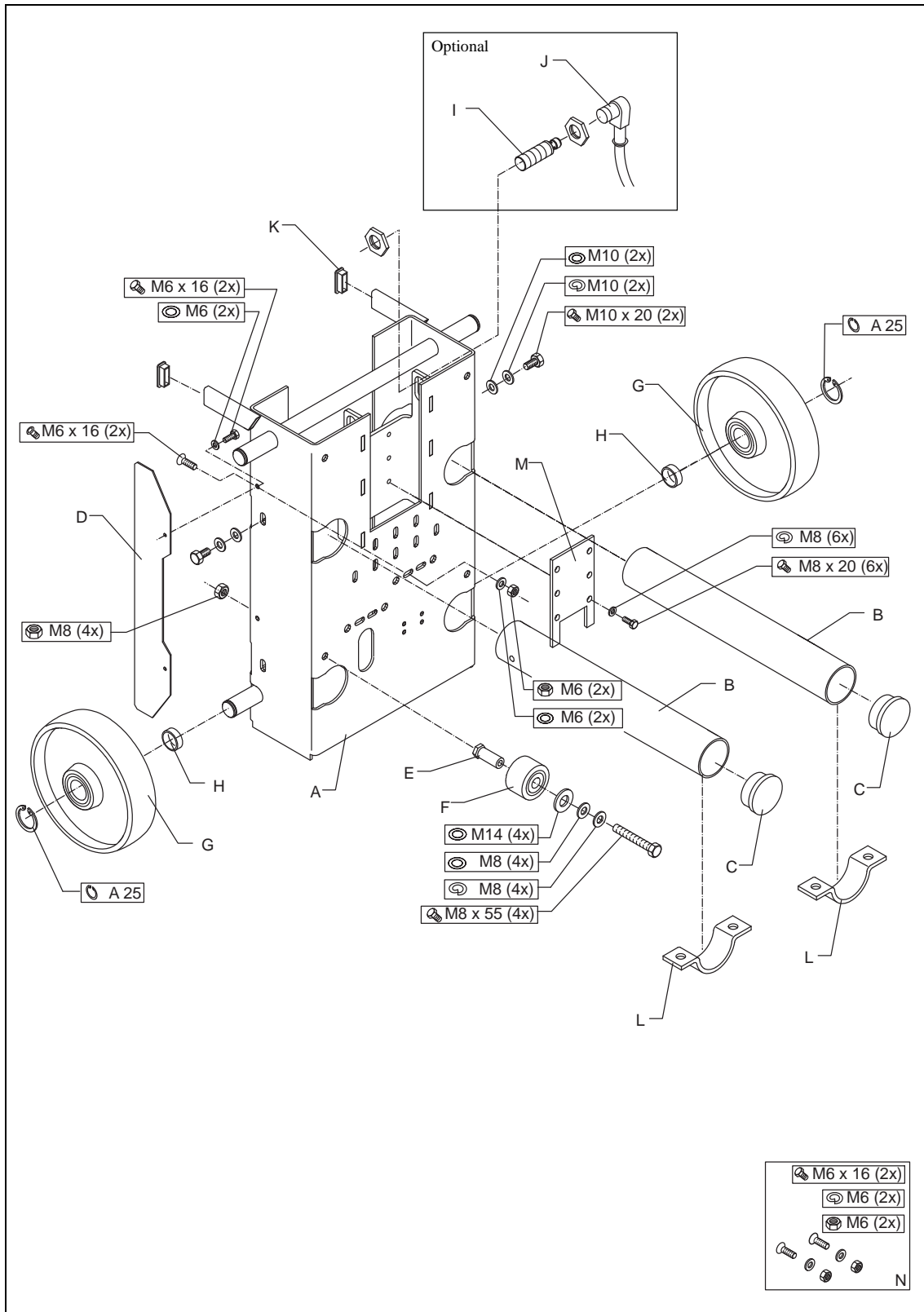
Centre section parts list

Centre section				
Pos	Quantity	Part number	Description (parts)	Notes
A	1	1001132	Frame centre	L = 1250 mm
	1	1001133	Frame centre	L = 1950 mm
B	4	1001092	Coupling profile column	

Centre section mounting materials

Centre section				
Quantity	Part number	Description (mounting mat.)	Notes	
16	1001311	Hexagon stud bolt	M8 x 12	
16	1000398	Spring washer	M8	

6.4 Exploded view trolley



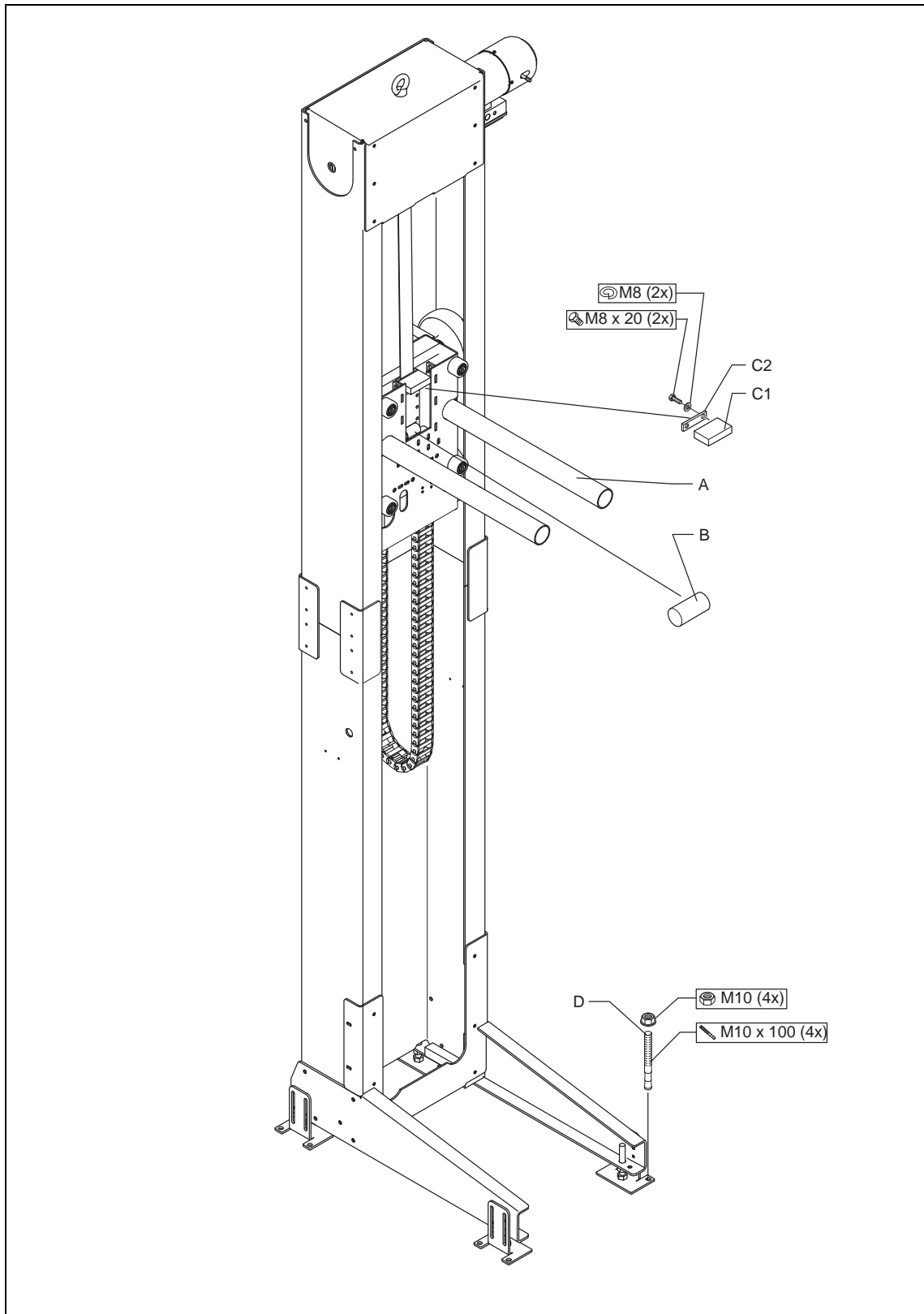
Trolley parts list

Trolley				
Pos	Quantity	Part number	Description (parts)	Notes
A	1	1001087	Trolley	
B	2	1001088	Carrier	ø60.3 L = 995 mm
C	2	1000909	Furniture cap	ø60
D	1	1001089	Signaller trolley	
E	4	1001091	Guide roller shaft	ø15
F	4	1000672	Wheel	ø15 x 30
G	4	1000873	Wheel	ø200 x 30
H	4	1000831	Spacer sleeve for wheel	
I	2	1000932	Inductive sensor	
J	2	1001326	Prefab cable PVC-OB	L = 5 m
K	2	1001107	Furniture cap	30 x 10
L	4	1000926	Cover bracket	Stainless steel
M	1	1001078	Clamping plate belt	
	4	1001111	Nut plate	2 x M8

Trolley mounting materials

Trolley				
Quantity	Part number	Description (mounting mat.)	Notes	
2	1001315	Hexagon stud bolt	M16 x 16	
2	1000174	Spring washer	M6	
6	1001175	Hexagon stud bolt	M8 x 20	
6	1000398	Spring washer	M8	
4	1001105	Hexagon stud bolt	M8 x 55	
4	1001316	Carriage work ring	M8	
4	1000398	Spring washer	M8	
4	1000153	Flat washer	M14	
4	1000327	Hexagon nut	M8	
2	1000193	Hexagon stud bolt	M10 x 20	
2	1000147	Flat washer	M10	
2	1000172	Spring washer	M10	
4	1001104	Circlip	A25	
2	1000177	Countersunk screw	M6 x 16	
2	1000174	Spring washer	M6	
2	1000326	Hexagon nut	M6	

6.5 Exploded view subassembly sections



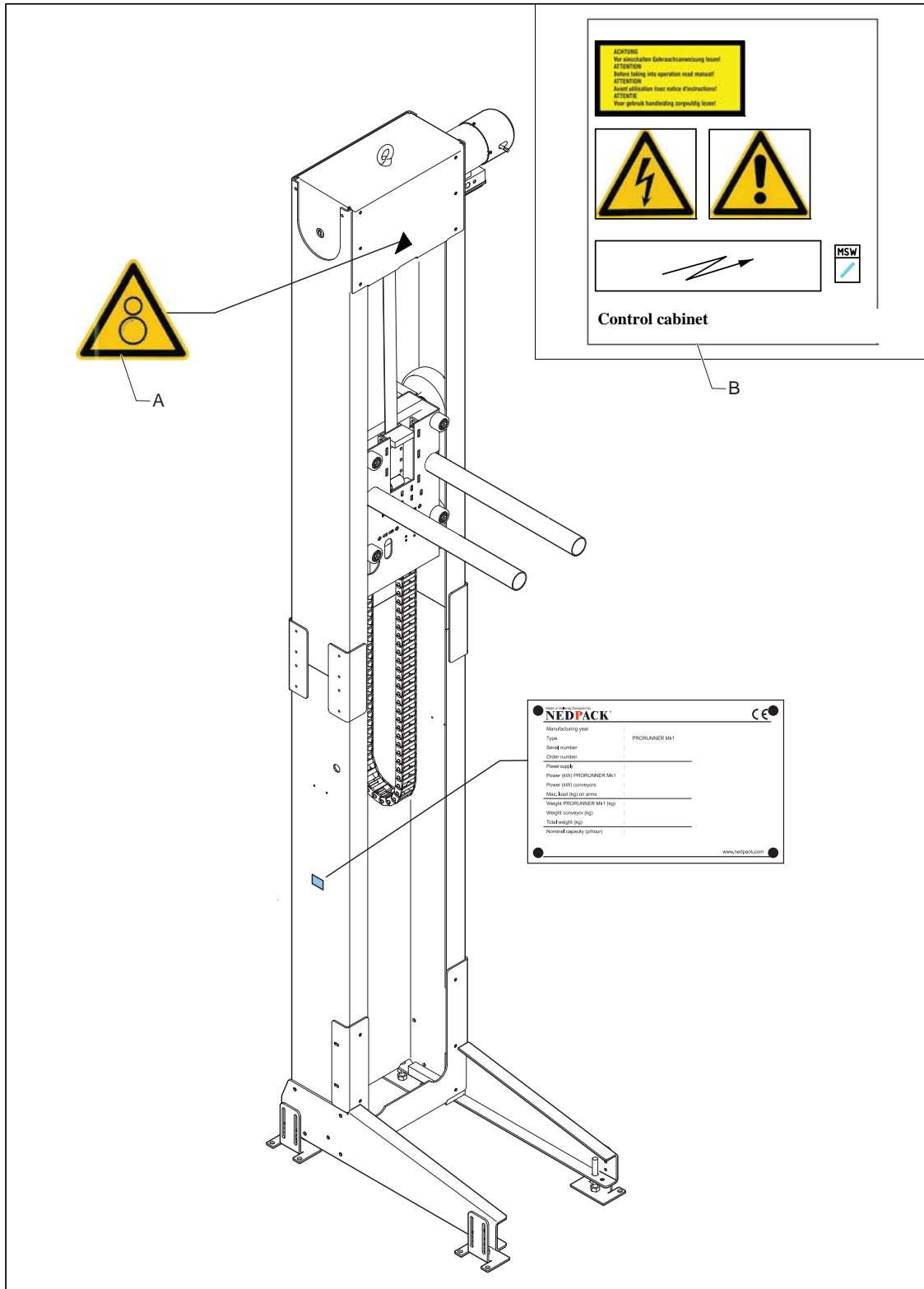
Subassembly sections parts list

Centre section				
Pos	Quantity	Part number	Description (parts)	Notes
A				
B	1	1001079	Pin for hoisting belt	
D	4	1001297	Anchor bolt	M10 x 100
C1	1	1000846	Signaller belt slack	Optional
C2	1	1000847	Clamping plate signaller belt slack	Optional

Subassembly section mounting materials

Subassembly				
Quantity	Part number	Description (mounting mat.)	Notes	
2	1001175	Hexagon stud bolt	M8 x 20	
2	1000175	Spring washer	M8	
4	1000125	Hexagon nut	M10	

7 Labels on frame



Stickers on frame parts list

Centre section				
Pos	Quantity	Part number	Description (parts)	Notes
A	1	1001535	Label for jamming	
B	1	1000795	Type plate	



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