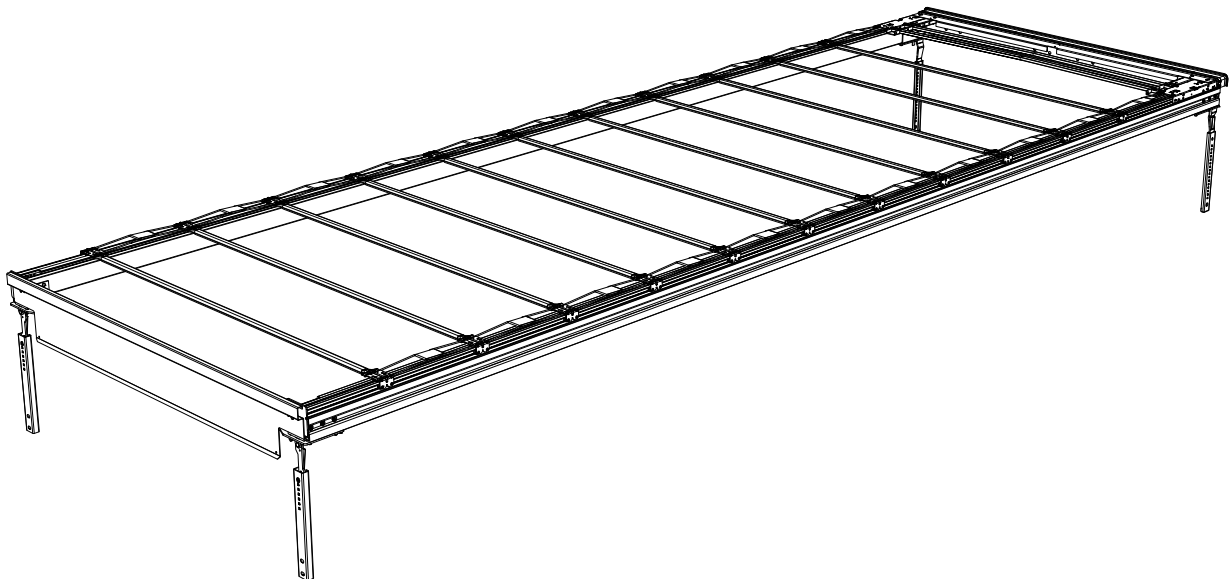


Mounting instruction MEGA top



Translation of the original mounting instruction

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GENERAL REMARKS

Introduction to Mounting Instruction

Alteration service: Yes
 Staff: According to curriculum for apprenticeship as a body and vehicle mechanic and a body and vehicle construction mechanic.

This Mounting Instruction is part of the delivery and an important help for successful mounting. Therefore, it must be available to the mechanic during the mounting works.

Furthermore, the assembly guidelines of the applicable vehicle producers must be obeyed.

Copyright:

The copyright for this mounting instructions is reserved by TSE Trailer System Engineering GmbH & Co. KG. If you need any further information, do not hesitate to contact us:

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Instruction and training support

As an employer, you are obliged to inform and instruct your personnel about existing legal and accident prevention regulations.

The personnel must have understood these instructions, and it must be safeguarded that the instructions are obeyed.

Only in this way you will reach safety and danger awareness of your personnel at work.

Example for training topics

1. About Safety

- Accident prevention regulations
- General legislation
- General safety hints
- Measures in emergency cases
- Personal protective equipment

2. Maintenance and repair regulations

- Correct use of cleaning agents and lubricants
- Special experience of the mechanic in maintenance, repair, cleaning and upkeep of the product

Hints

Attention:

The surfaces of the TSE modules must not be contaminated with caustic cleaning fluids. Cleaning fluids with the appropriate labeling are aggressive and can cause damage to all component surfaces. These should expressly not be used for gentle cleaning.

Nummer	Symbol
GHS05	corrosivity

**ATTENTION!**

Texts with this symbol will warn you against possible mistakes in mounting and, therefore, against potential material damages.

**HINT!**

Texts with this symbol will give you tips or additional information.

**TIGHTENING TORQUE!**

Texts with this symbol will give you necessary tightening torques.

**You need holes!**

Texts with this symbol indicate the setting of holes.

Safety

General

Although our products are in accordance with the state of the art, they may pose a risk if:

- they are mounted by unskilled personnel
- they are maintained improperly

Safety hints

This safety instruction informs you about the products of TSE Trailer System Engineering GmbH & Co. KG. It contains information about maintenance and repair of the parts and their components. The service instruction has only been written for skilled personnel of qualified and authorized specialized companies in motor vehicle crafts. The service instruction is not applicable for other target groups.

We want to support specialized companies with the present mounting instruction during the mounting works with our products.

TSE Trailer System Engineering GmbH & Co. KG accepts no liability for the installation of inapplicable or unreleased parts in their products.

Defects due to wrong handling, aggressive cleaning agents, use of force or subsequent changes of the delivered product or single components of it, as well as non-observance of the safety hints and consequential damages caused thereby, are not covered by our warranty.

Only use unchanged original parts and accessories supplied by the manufacturer.

We do not accept any warranty for the correctness, completeness or currency of the given information. The contents and information of this mounting instruction are neither a warranty or warranted characteristics within the meaning of German legislation, respectively the German Civil Code (Bürgerliches Gesetzbuch (BGB)), nor can they be interpreted as such.

No claims can be derived from provision of information, recommendation or consulting. Liability for damages is generally excluded as far as we are not responsible in the sense of intent or gross negligence, or as far as this does not contradict mandatory legal provisions.

Texts and graphics are subject to our rights of use; copy rights or right of distribution in any form require our agreement.

Mentioned brand names, even if they are not marked as such in every case, are still subject to the regulations of the trade mark law.

If any disputes of legal nature occur from applying information found in this mounting instruction, they shall solely be subject to the regulations of German law.

The Amtsgericht Stuttgart (Local Court in Stuttgart) is deemed to be agreed on as place of jurisdiction. If some clauses of this declaration about limitation of liability do not or no longer comply with the applicable legal provisions, the validity of the other clauses shall remain unaffected thereof.

Read the information in this mounting instruction carefully. Especially, obey the hints for your own safety.

All technical information, descriptions and pictures shall be valid from the day of their printing - respectively the day of any supplements hereto - on. We reserve the right to make changes due to steady further development.

No claims can be derived from applications and explanations of this publication.

Safety hints for the technician:

Unauthorized people are not allowed to enter the vehicle and the area around it.

Your working area should be in good order.

Only works which you are commissioned and acquainted with have to be executed.

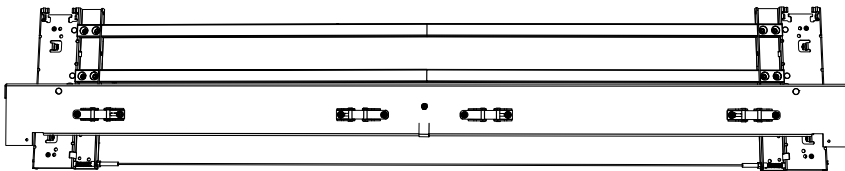
Increased caution is advisable in dangerous areas.

Obey the producer's information and safety hints for the applicable product when you deal with operation materials (oils, grease etc.).

Only applicable lifting devices may be used.

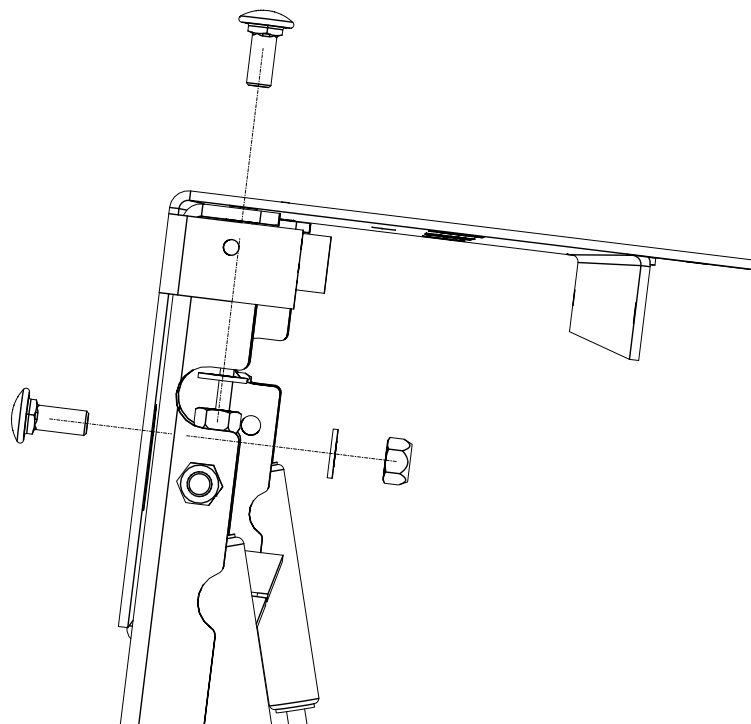
Guide carriage with crossbar, mounted

1



Mounting of crossbar

1



Carriage bolt without nut
M8x20



Washer A8.4



Hexagon nut with
all-metal clamping element M8



Tightening torque 25 Nm

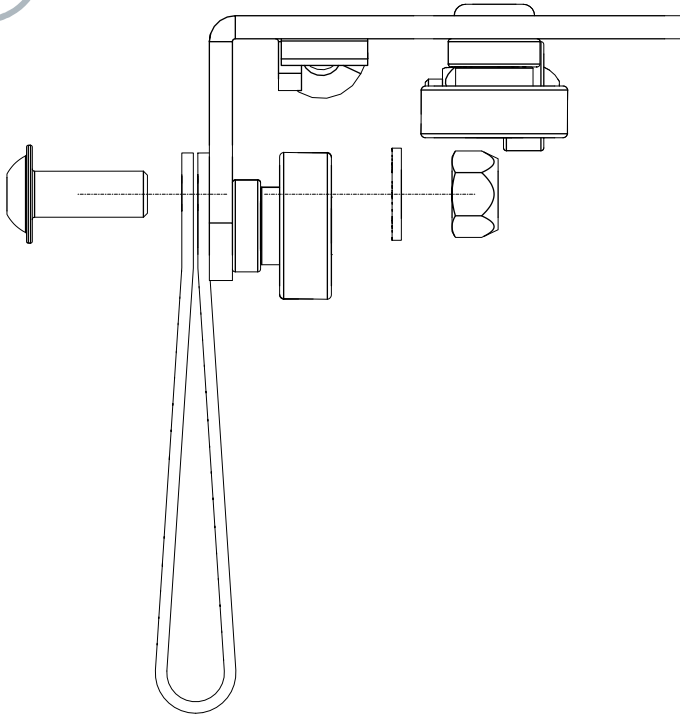
Screw the crossbar with the
folded up consoles
of the guide carriages.

Carriage bolts, washers,
and hexagon nuts
have to be taken from the
**accessories of the
applicable top.**

Mounting of pull loops

1

Mount pull loop on the left and right side.



Hexagon screw with flange
and internal hex
M8x20



Washer without chamfer A8.4



Hexagon nut with
all-metal clamping element M8



Loop

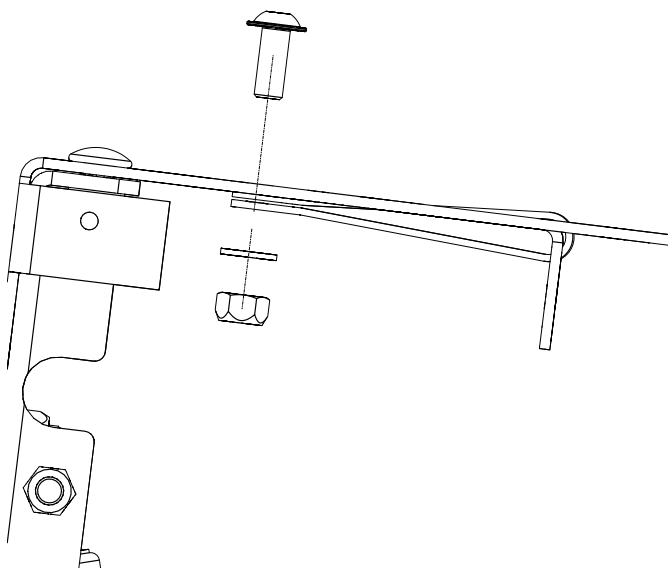


Tightening torque 36 Nm

Screws, washers,
hexagon nuts and
loop have to be
taken from the
**accessories of the
applicable top.**

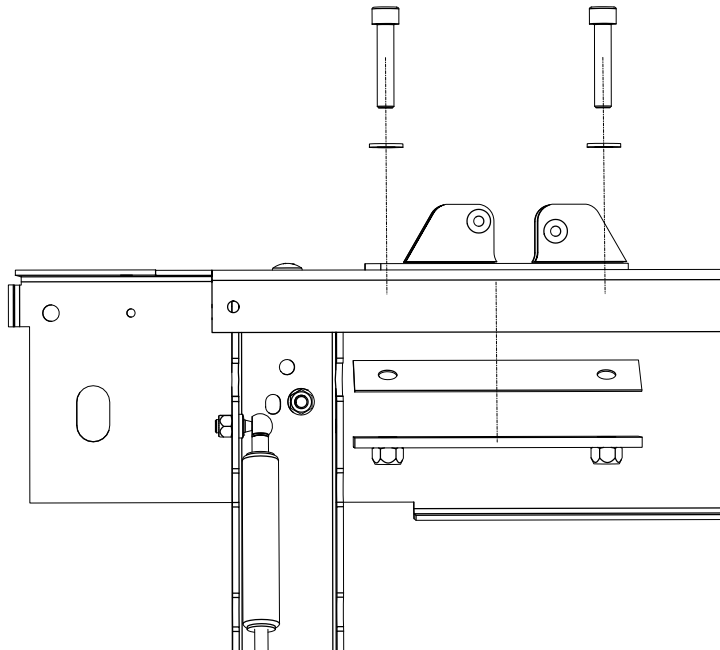
2

Mounting pull loop intermediate



Mounting of counter bearing of locking upside

1



Cylinder screw with
internal hex M10x50



Washer without chamfer
A10.5



Counter bearing of locking
upside left/right



Sealing plate



Clamping plate complete



Tightening torque 48 Nm

Cylinder screws, washers,
counter bearings of locking,
sealing plate and clamping
plate complete have to be
taken from the
**accessories of the
applicable door.**



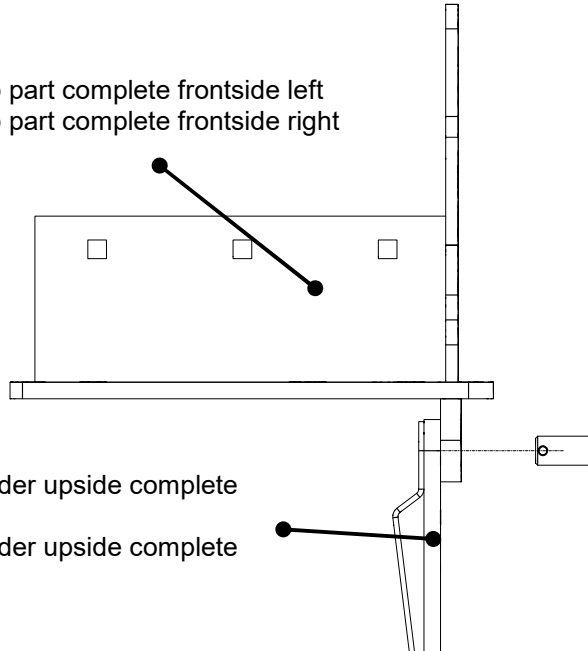
After the completed
mounting of the top it is
possible – if an upper flap
is mounted- to mount this
instead of the counter
bearing of locking. The
exact mounting process
can be taken from the
Mounting instruction
„Upper flap Mega“.

Premounting of sliders front wall IV

1

Connect top part and slider with the bolt.

Front wall IV top part complete frontside left
Front wall IV top part complete frontside right



Front wall IV slider upside complete frontside left
Front wall IV slider upside complete frontside right

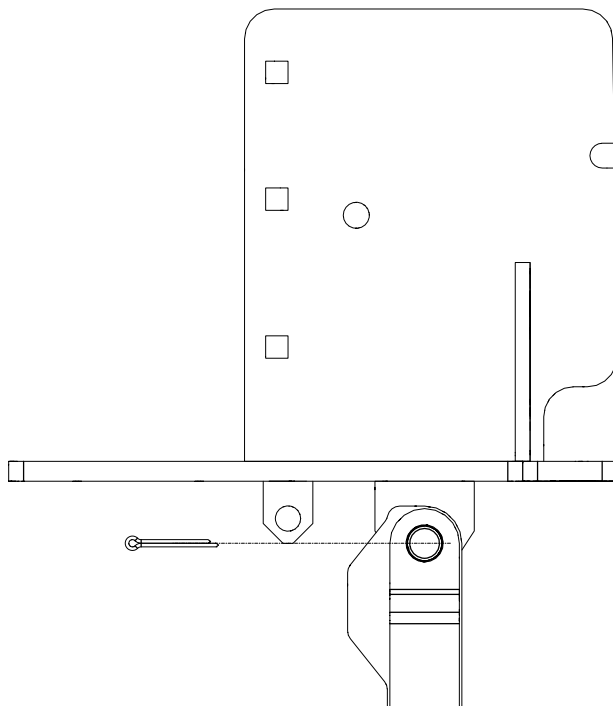


Bolt with head and splint hole

The bolt has to be taken from the **applicable assembly kit**.

2

Fix the bolt with the splint



Splint

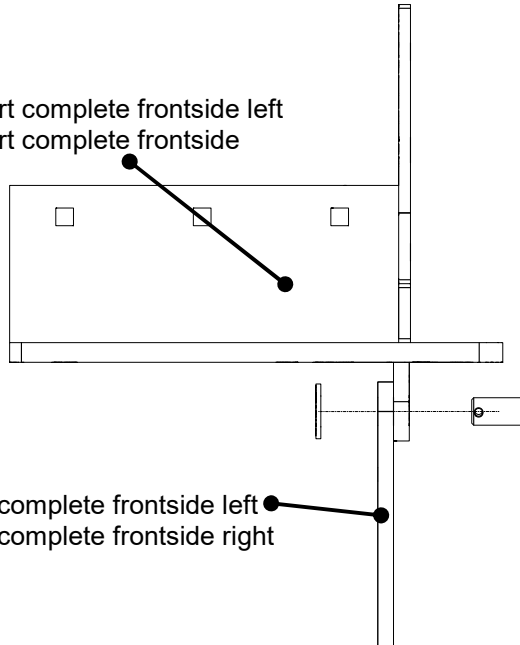
The splint has to be taken from the **applicable assembly kit**.

Premounting of sliders front wall II


1


Connect top part and slider with bolt and washer.

Front wall II top part complete frontside left
Front wall II top part complete frontside



Front wall II slider complete frontside left
Front wall II slider complete frontside right

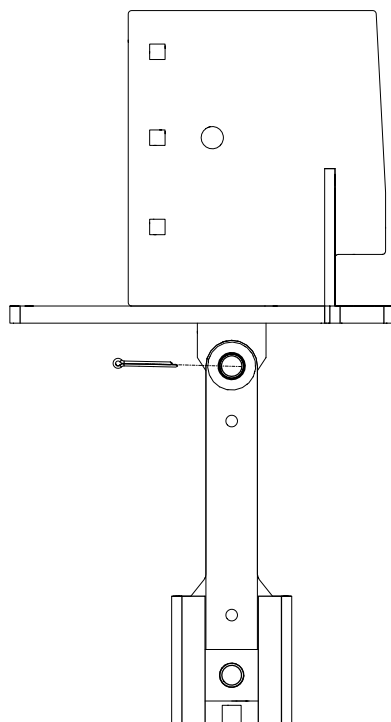
 Bolt with head and splint hole

 Washers without chamfer A15

Bolt and washers have to be taken from **the applicable assembly kit**.

2

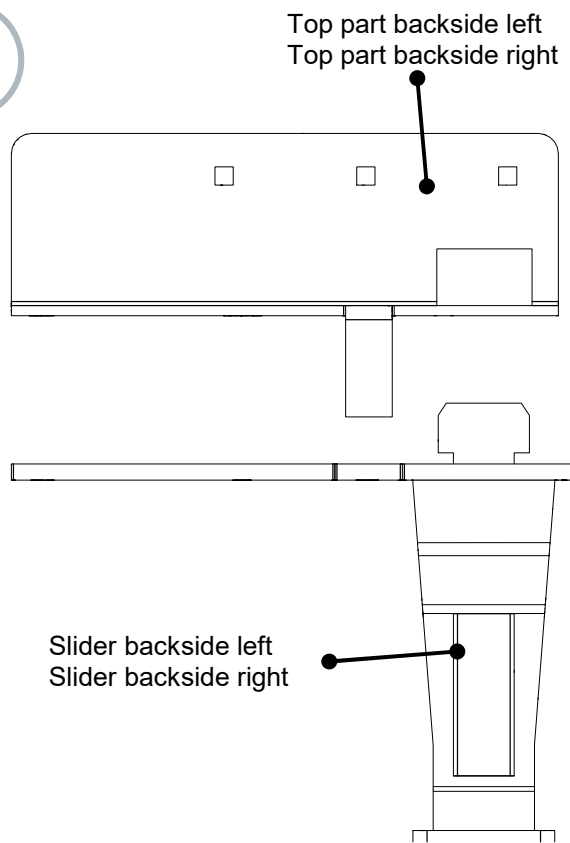
Fix the bolt with the splint.



Splint

The splint has to be taken from **the applicable assembly kit**.

Premounting of rear door III slider

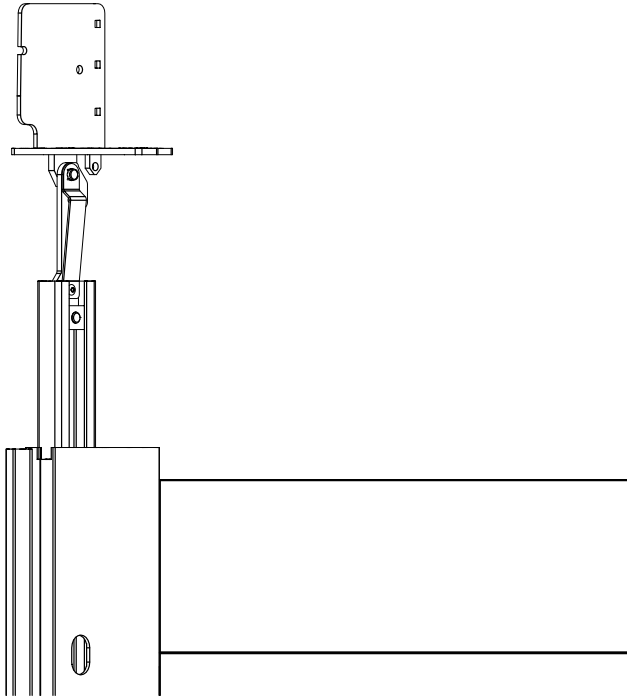
1

Top parts and sliders have to be taken from the **assembly kit**.

Insertion of slider in the front wall

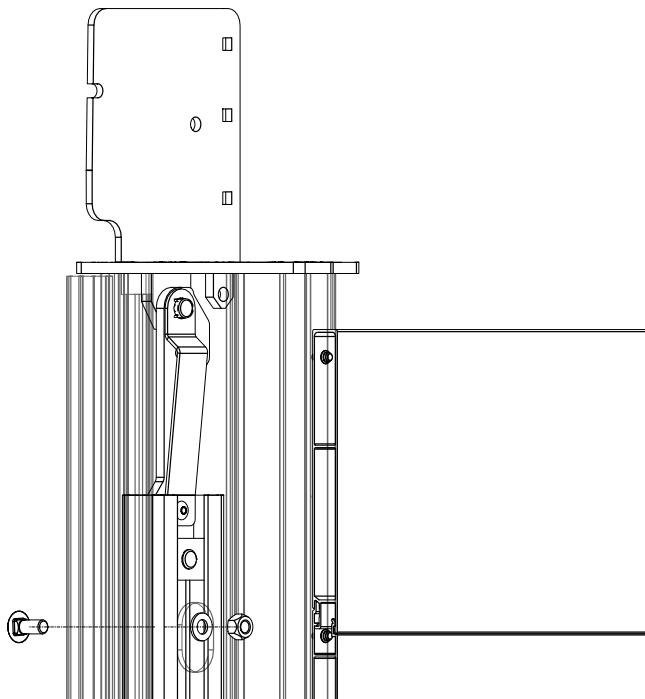
1

Premounted slider, insertion



2

Drill a fixing hole.



Carriage bolt without nut
M10x25



Washers without chamfer
A10.5



Hexagon nut with
all-metal clamping element



Tightening torque 48 Nm

Carriage bolt, washer and
hexagon nut has to be taken
from **the applicable
assembly kit**.

Insert the premounted slider.
The top part must be seated
on the stanchion.

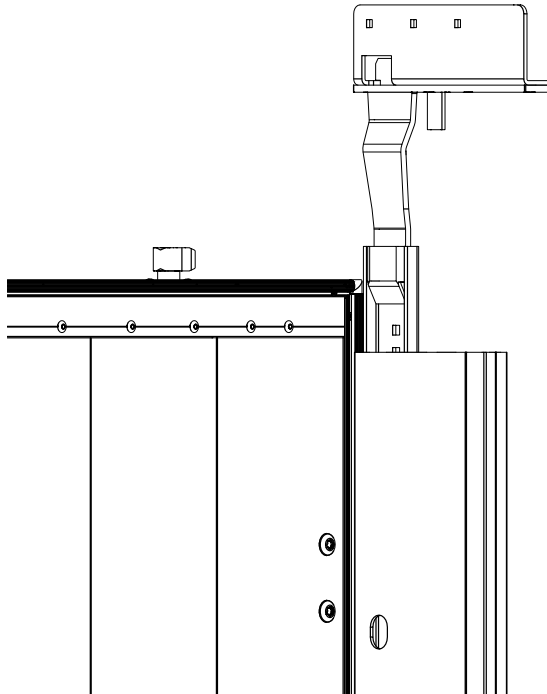


This borehole is only needed
for a roof **without** hydraulics!

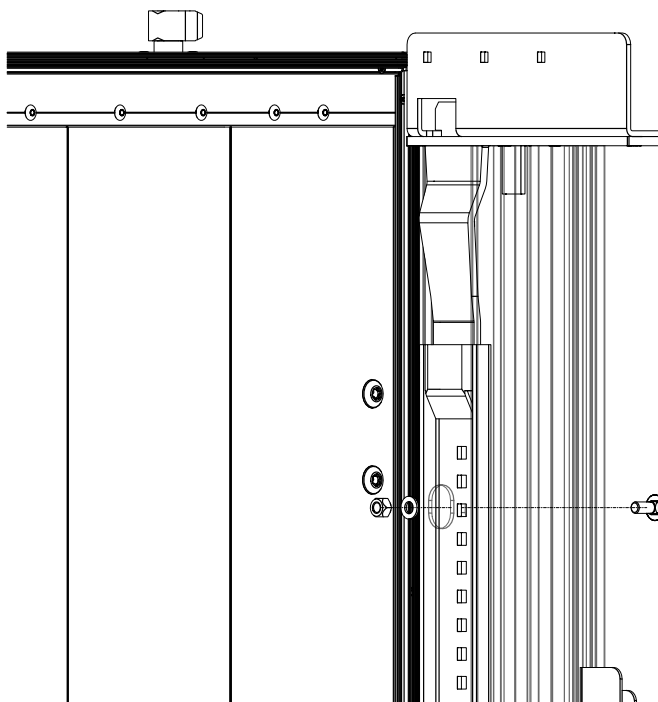
Insertion of the slider into the rear door

1

Insert the premounted slider.


2

Drill a fixing hole.



Carriage bolt without nut
M10x25



Washers without chamfer
A10.5



Hexagon nut with
all-metal clamping element



Tightening torque 48 Nm

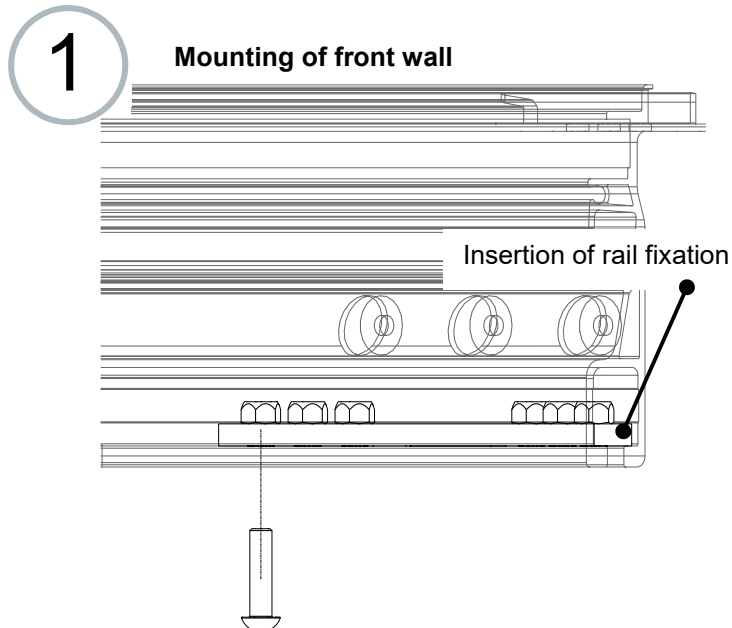
Carriage bolt, washer and hexagon nut have to be taken from **the applicable assembly kit**.

Insert the premounted slider.
The top part must be seated on the stanchion.



This borehole is only needed for a roof **without** hydraulics!

Mounting of the insertion of rail fixation

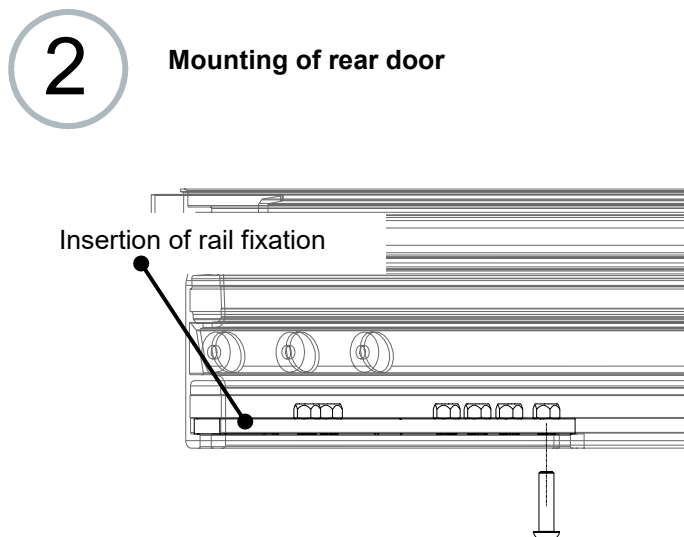


Fillister head screw with internal hex M10x40



Tightening torque 71 Nm

The fillister head screw has to be taken from **the applicable assembly kit**.



Fillister head screw with internal hex M10x40

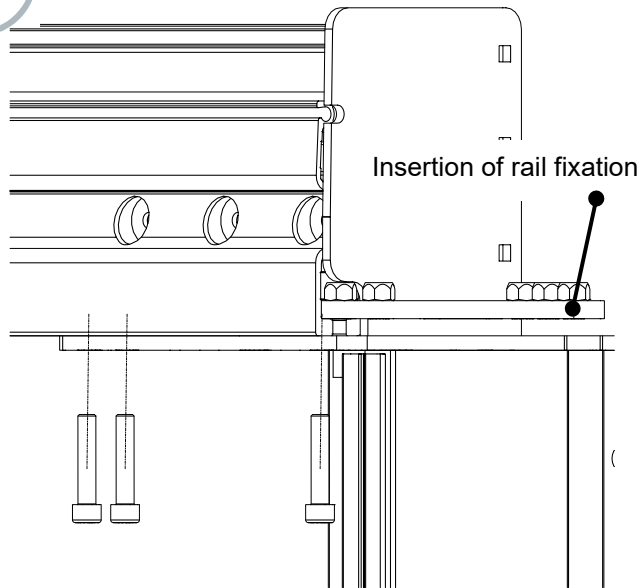


Tightening torque 71 Nm

The fillister head screw has to be taken from **the applicable assembly kit**.

3

Mounting of front wall



Cylinder screw with
internal hex M10x50

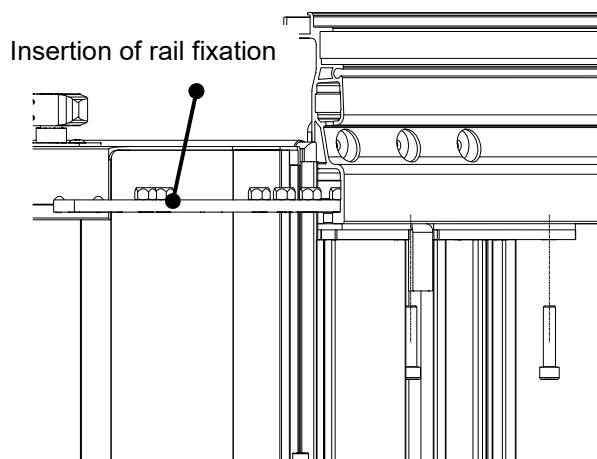


Tightening torque 48 Nm

Cylinder screw and insertion
of rail fixation have to be taken
from **the applicable assembly
kit**.

4

Mounting of rear door



Cylinder screw with
internal hex M10x50



Tightening torque 48 Nm

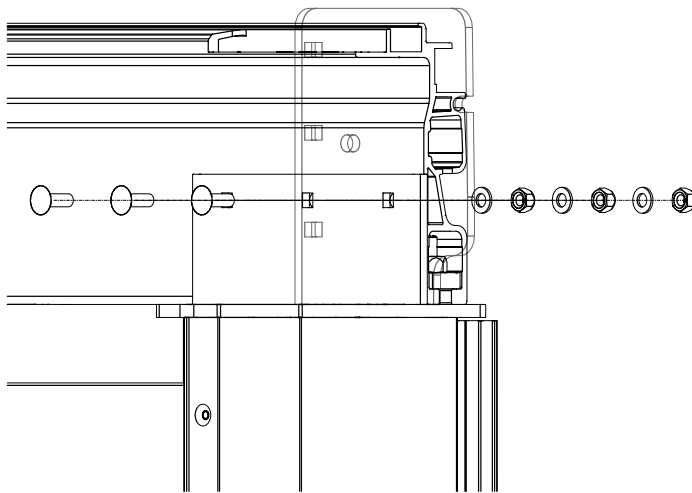
Cylinder screw and insertion of
rail fixation have to be taken
from **the applicable assembly
kit**.

After placing the rail, the
insertions of the rail fixation
have to be inserted into the
outer rail.
They must be flush with the
rail edge.
Fix with the cylinder screw.

Mounting of the outer rail

1

Mounting of the outer rail with the front wall slider



Round-head screw with square neck M8x25

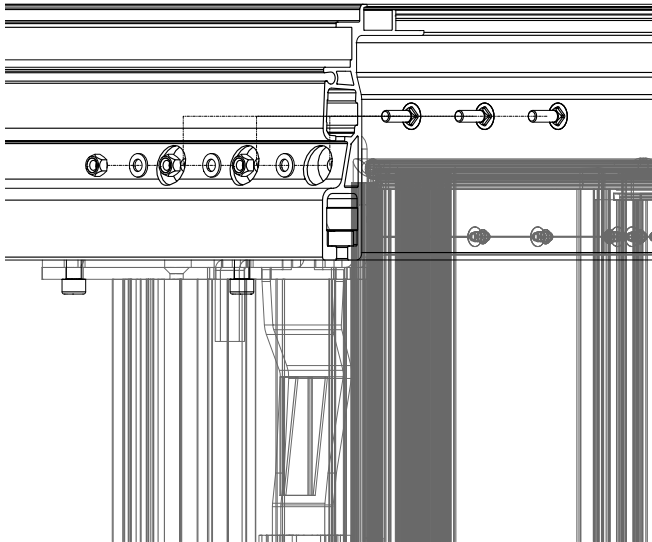





Washer without chamfer A8.4



Hexagon nut with all-metal clamping element M8

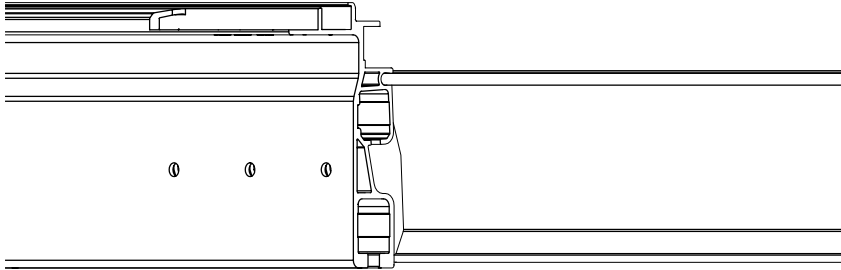
Lift the premounted outer rails with lifting device and place it on the front wall and rear door stanchions.

2
Mounting of outer rail with the rear door slider


-  Round-head screw with square neck M8x25
-  Washer without chamfer A8.4
-  Hexagon nut with all-metal clamping element M8

Mounting of the sealing profiles

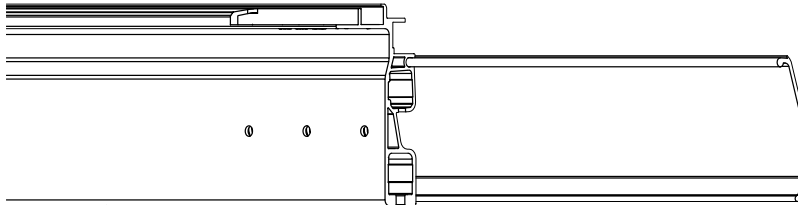
1



The slot for the sealing profiles has to be deburred at the front side at the outer rail.
For a better mobility at retracting the sealing profiles into the slot, we recommend to use a lubricant.

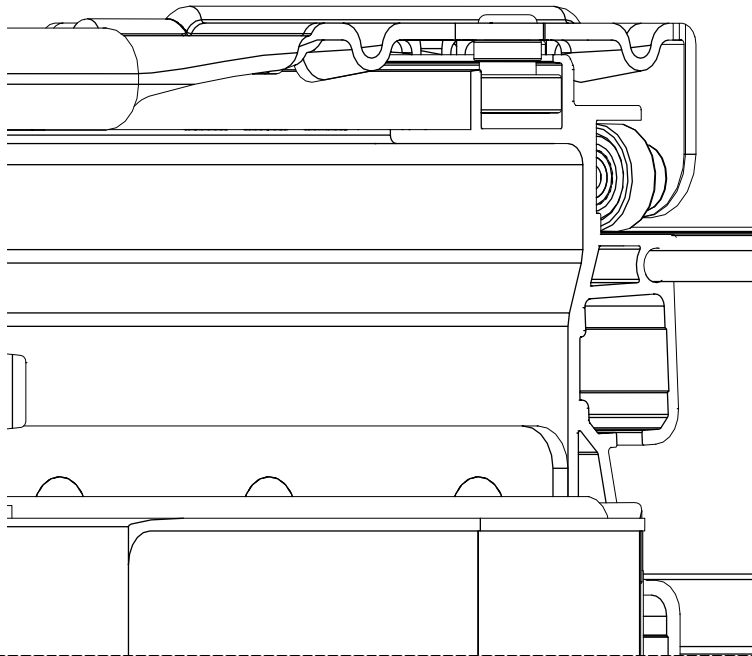
The sealing profiles are part of the applicable top.

2



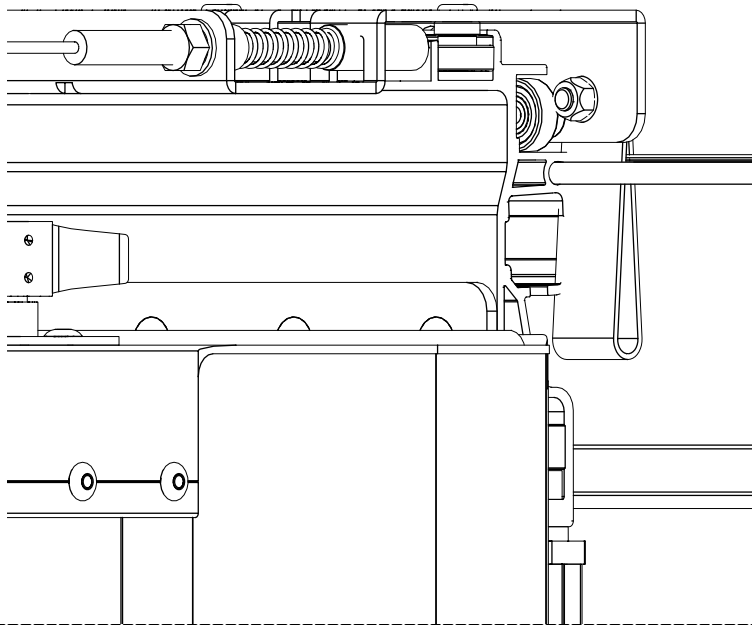
The sealing profile should protrude for about the same distance after the retraction into the slot of the outer rail, frontside and backside. This protrusion of the the sealing profile is needed and processed furtheron by the tarp maker.

Mounting of crossbeam and guide carriage

1

Crossbeams have to be inserted into the outer rails from the backside of the vehicle. The number of crossbeams depends on the structural length.

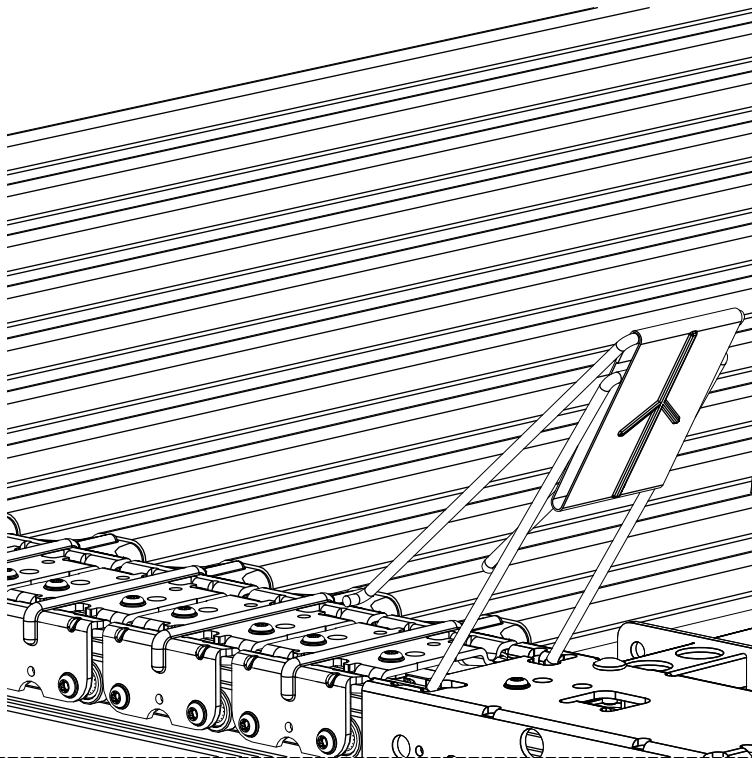
The crossbeam is part of the applicable top.

2

The guide carriage has to be inserted into the outer rails from the backside of the vehicle.

The guide carriage is part of the applicable top.

Mounting of scissor lift package

1

Mount the scissor lift package.
Start mounting at the guide
carriage for this purpose.

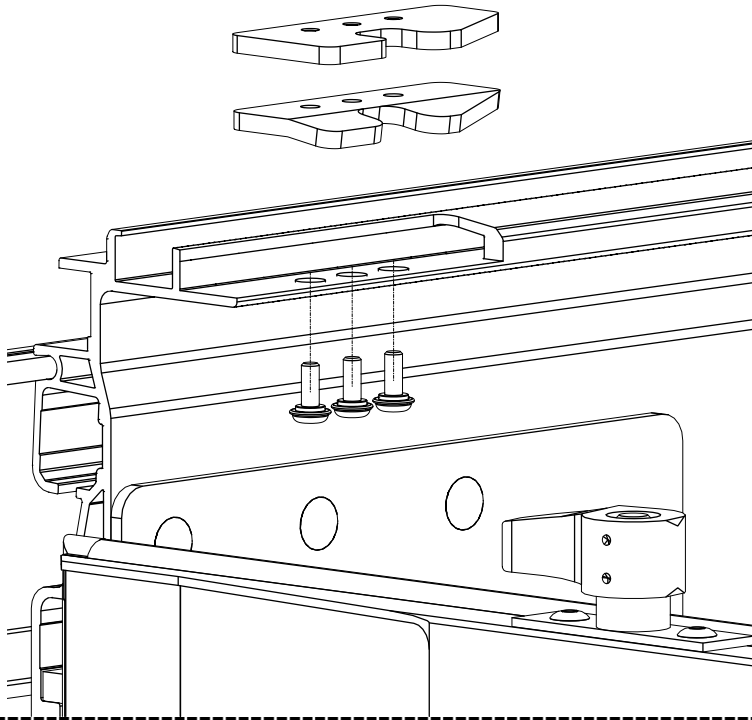


The engraved arrow of the
scissor lift package **must**
always show upside and into
the driving direction

The scissor lift packages are
part of the applicable top.

Mounting of adjustment guide carriage backside

1



Adjustment backside up



Adjustment backside left
Adjustment backside right



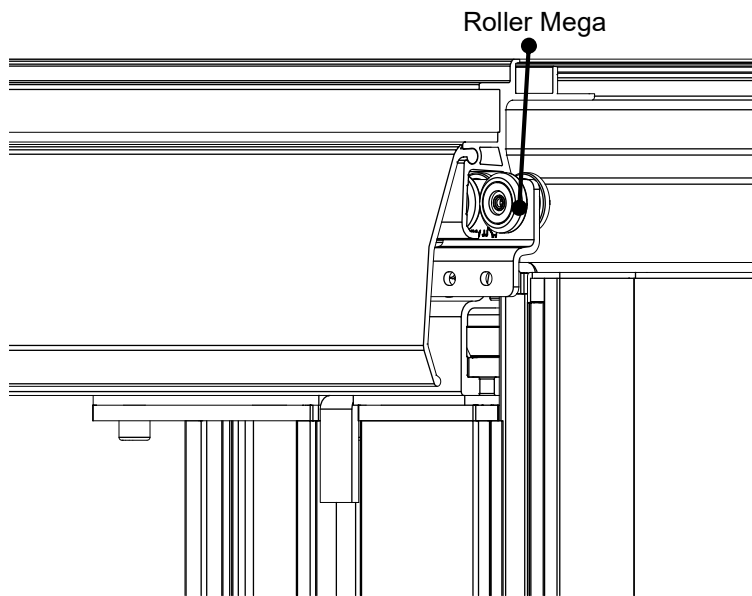
Fillister head screw M6x16



Tightening torque 15 Nm

Mounting of roof and side tarp (made by the tarp maker)

1

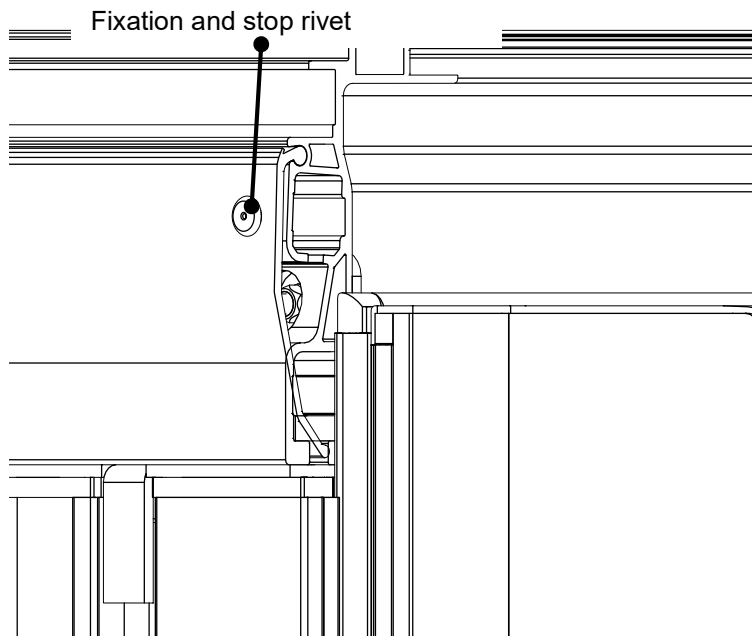


The rollers are already riveted with the tarp and must be pushed in together with this into the outer rail.

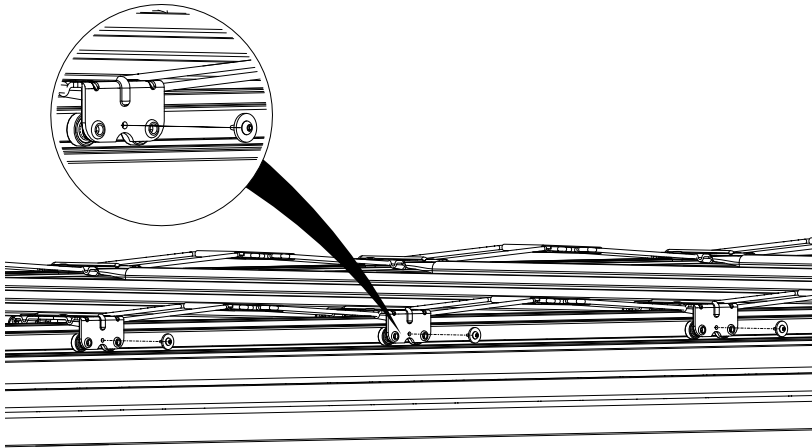
Cut the protrusion of the rail of the lateral rubber sealing profiles to the needed length.

The rollers Mega are part of the applicable top.

2



Drill through the rubber and aluminium rail in the guide channel of the tarp rollers and rivet it. The fixed rivet also serves as an end stop for the tarp rollers at the backside and the frontside.

3

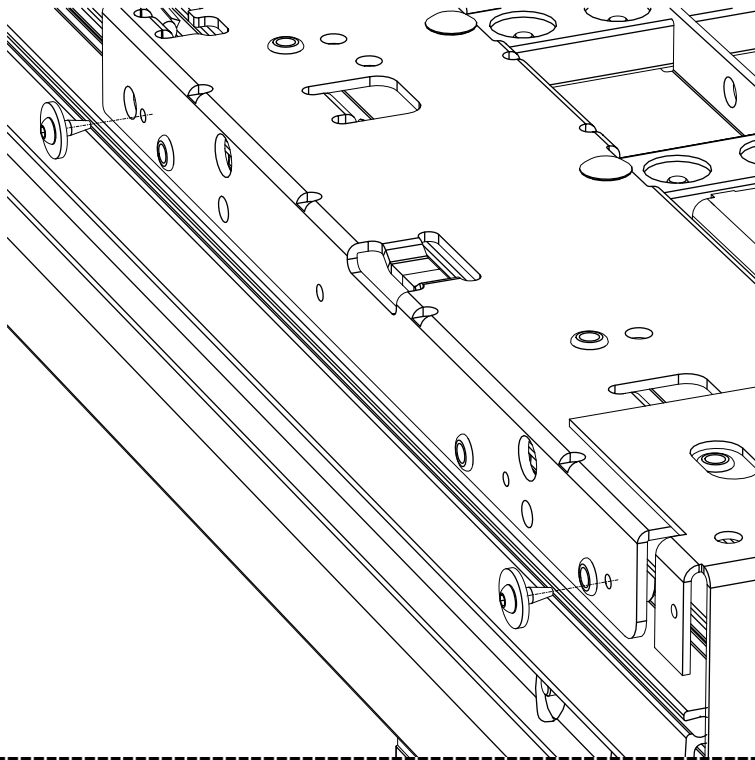
Taptite screw with washer
M6x15

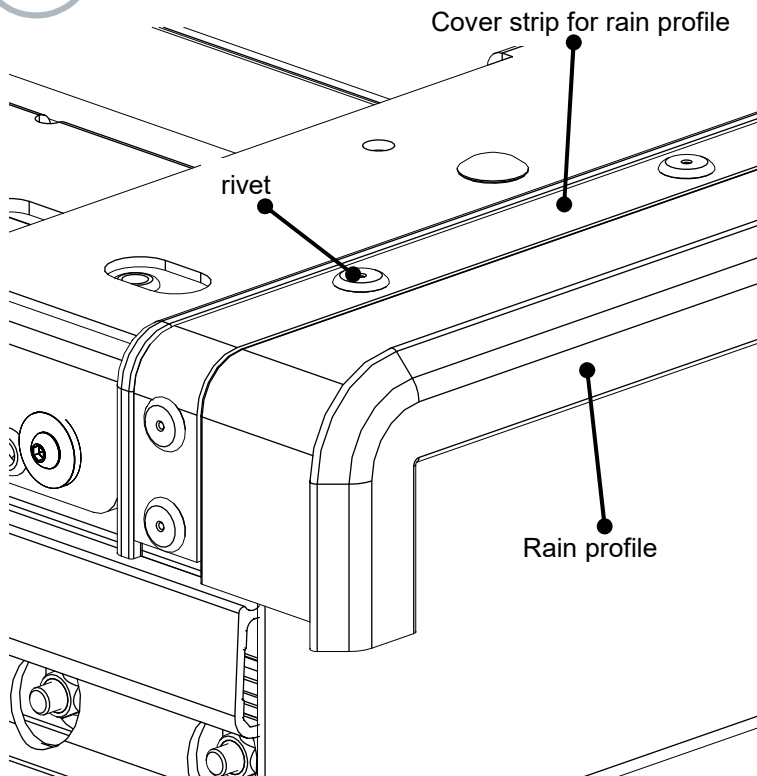


Tightening torque 12 Nm

The fixation boreholes serve to screw the tarp (with self-cutting screws).

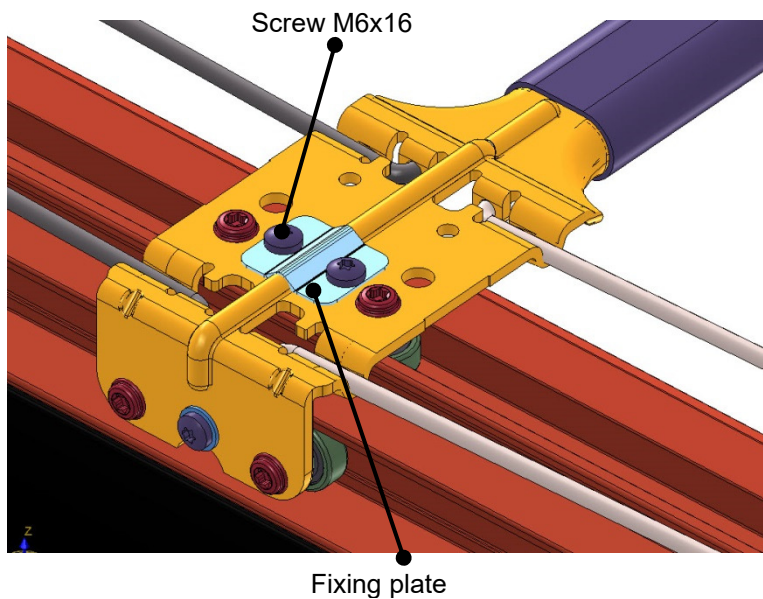
4



5

The cover strip for the rain profile and the rain profile are **part of the accessories of the applicable top.**

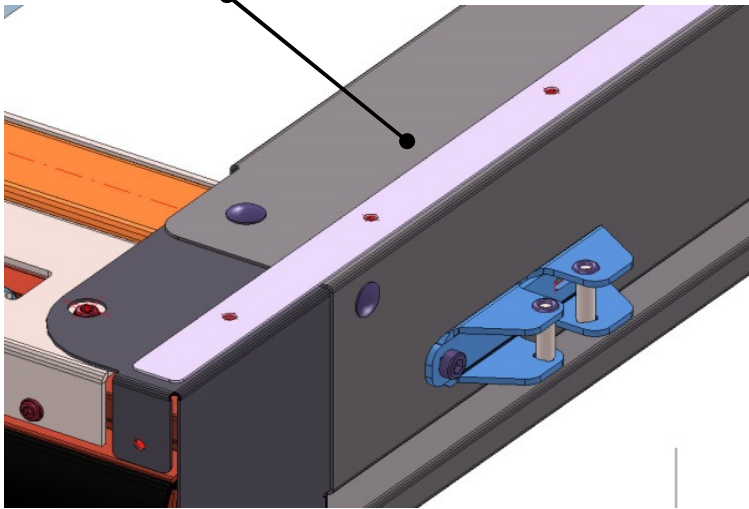
Mounting of Carapax kit (normally done by tarp producer)

1

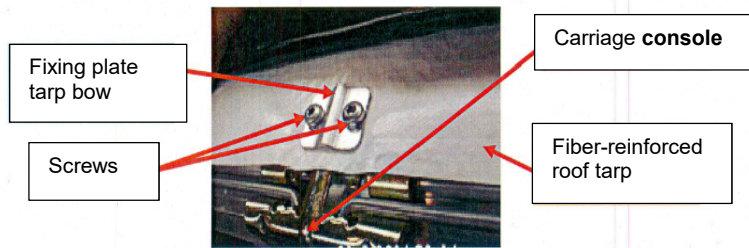
Torque 12 Nm

2

Fixing plate backside

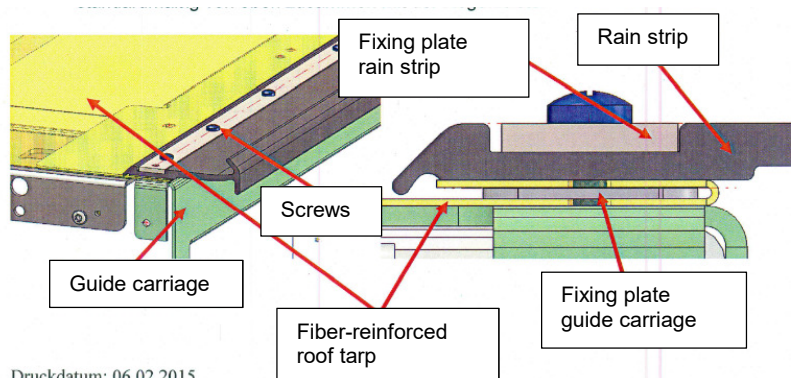


3



- Anschluss Fächerzeugzeug -

4



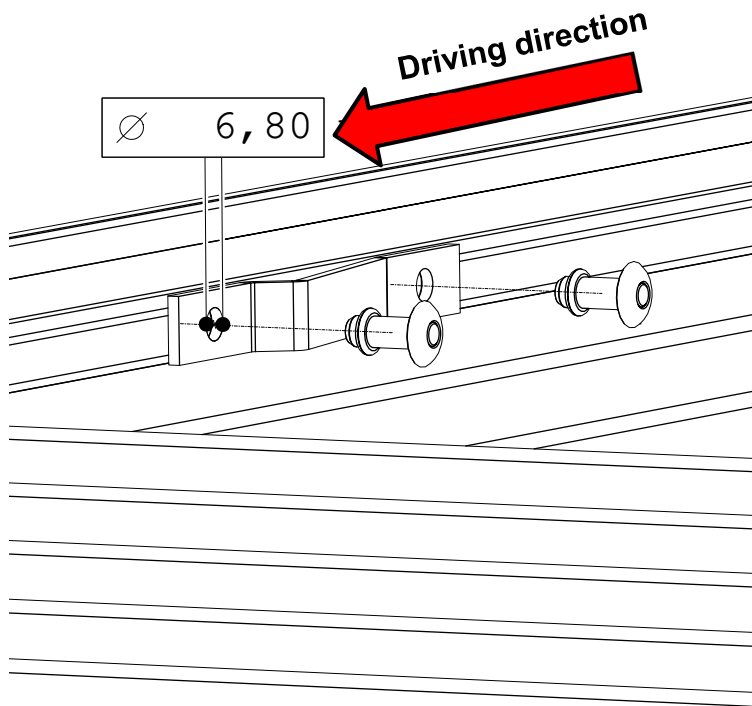
Druckdatum: 06.02.2015

Seite 1

Mounting of adjustment for guide carriage frontside

1

Mounting of the adjustment frontside


 Stop of guide carriage
frontside left/right

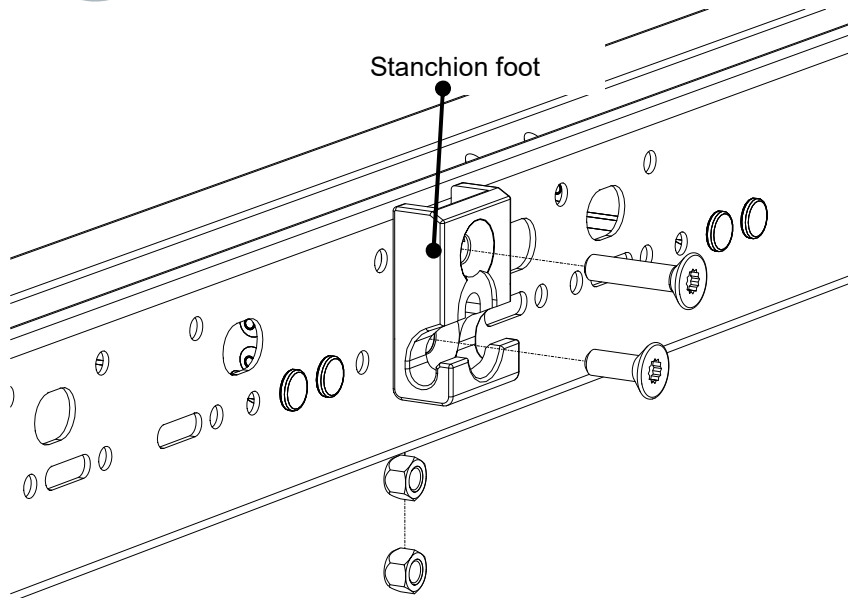
 Hemlok rivet
KL-Ber 10.8-12.8mm

 Position can only be
determined after opening the
top!

 Stop of guide carriage and
rivets are **part of the**
applicable top.

Mounting of hinge stanchion

1



Countersunk screw with
Torx drive M14x55



Countersunk screw with
Torx drive M14x40



Hexagon nut M14



Tightening torque 190 Nm

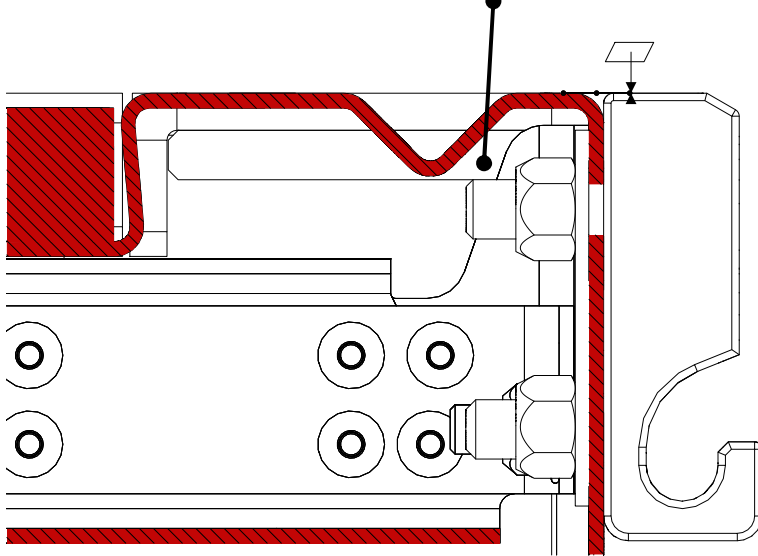
Position of the stanchion foot
according to calculation sheet

Boreholes are made by the
customer.

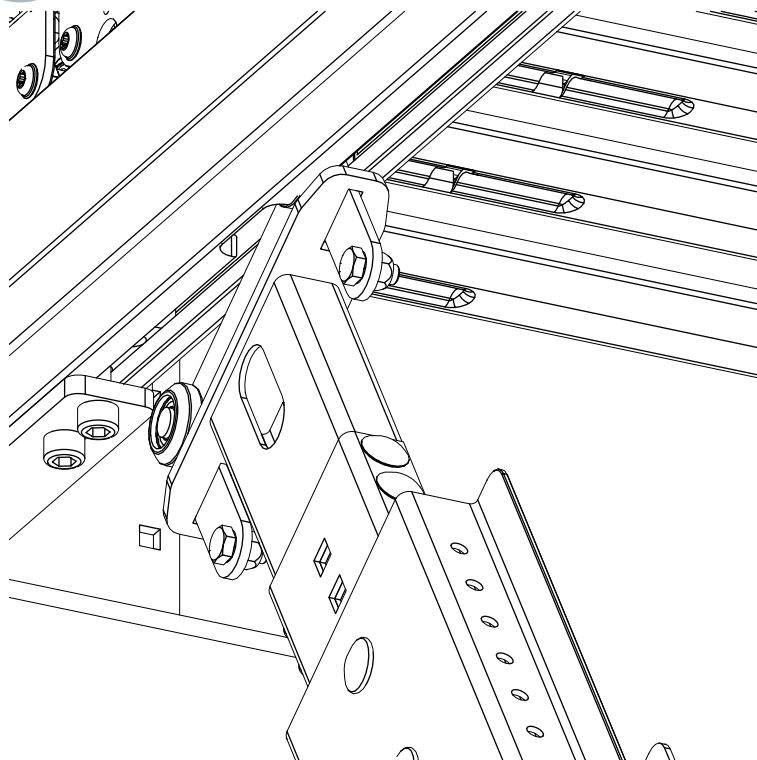
Countersunk screws,
stanchion foot, hexagon nut
and counter bearing are **part
of the applicable stanchion.**

2

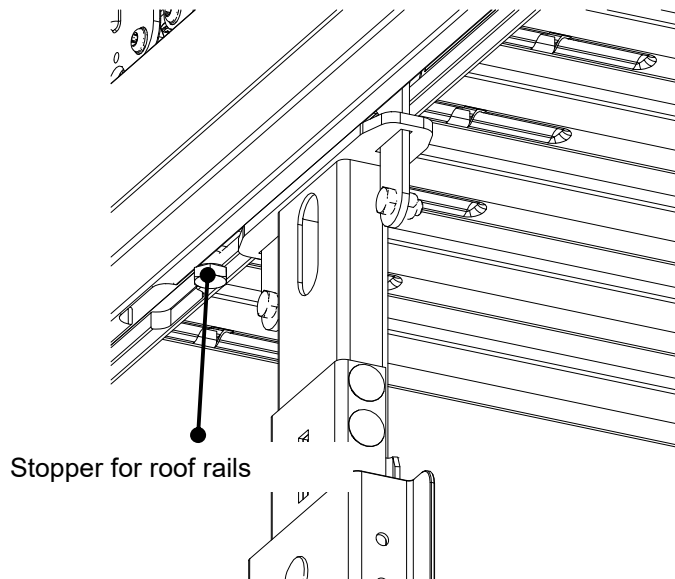
Counter bearing for stanchion foot



3



4



Stopper for roof rails



Hexagon screw with
thread to head M10x35



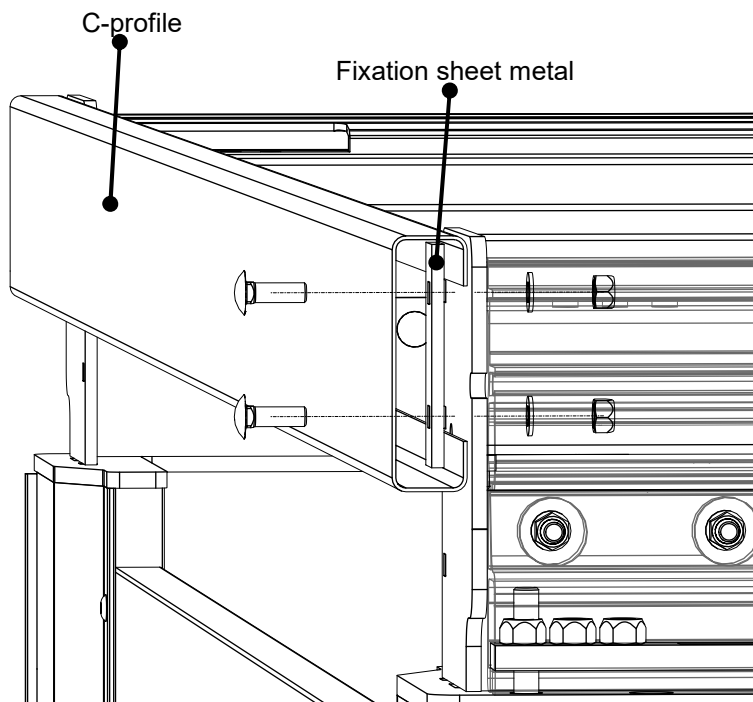
Tightening torque 48 Nm

Mount all hinge stanchions
and then fix them with the
stopper for roof rails.
The number of the hinge
stanchions depends on the
structural length.

Stopper for roof rails and
hexagon screws are **part of
the applicable top.**

Mounting of C-profile

1



Round-head screw with square neck M8x25



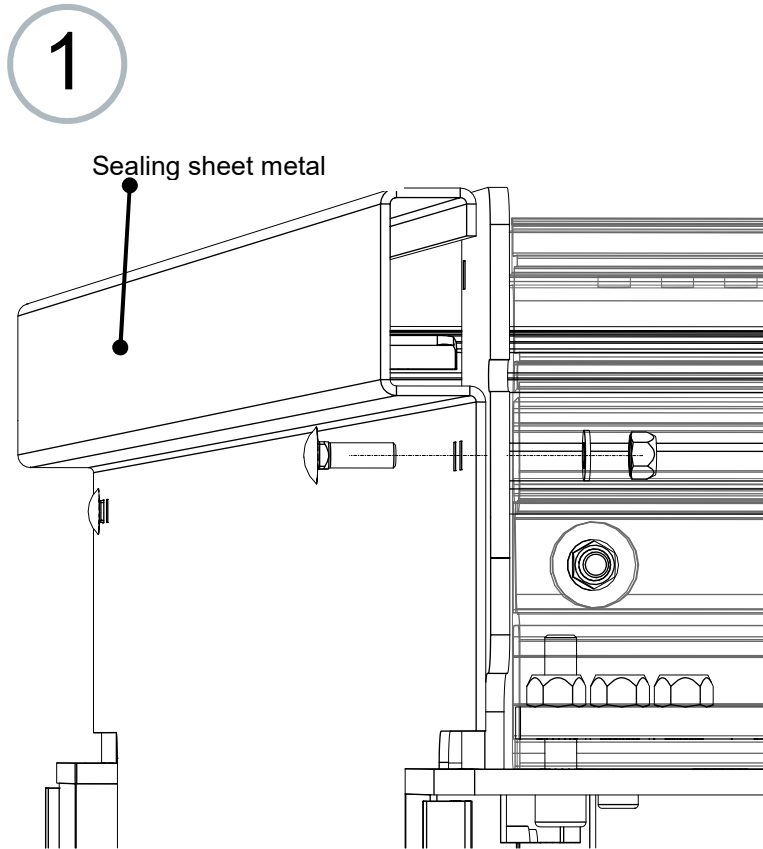
Washer without chamfer



Hexagon nut with all-metal clamping element M8

Round-head screws, washers, hexagon nut, C-profiles and fixation sheet metal are part of the applicable assembly kit.

Mounting of sealing sheet metal (only for tops with lifting device)



Round-head screw with square neck M8x25



Washer without chamfer



Hexagon nut with all-metal clamping element M8



Due to the needed turning function during the lifting process, it is **always required** to use the outer screw position.

Round-head screws, washers, hexagon nut and sealing sheet metal are **part of the applicable assembly kit**.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Revision status

Revision status	Kind of change	Date	Name
00	New creation of mounting instruction	05 September 2018	Dingler / Maier
01	Carapax kit was added	02 Oct 2018	Laib / Maier
02	The safety hints have been supplemented	15 May 2019	Maier
03	Changing title of chapter 12 and the safety hints have been supplemented	06 June 2019	Laib / Maier
05	Corrected tightening torques	29 September 2020	Boll
06	Page 4 changed	24.11.2020	Boll
07	Page 35, screw from M12 to M14	11 January 2023	Laib

Erstellt	Geprüft und Freigegeben
Datum: Name/Abt. Unterschrift	Datum: 29.09.2020 Name/Abt. U.Boll
Dokument: FB45120A	