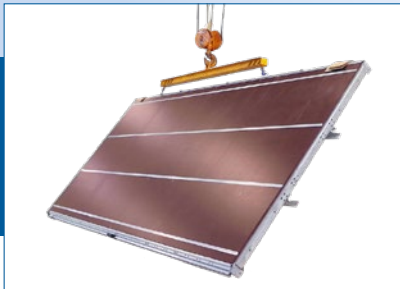


## Assembly Instructions BR 18x-2

# Curtainsider kits



MA1802.EN\_012024

*Always read through these instructions, completely and carefully, before you start the assembly work.*



## Table of Contents

<b>1. Safety Instructions and Warnings</b>	2
1.1 Check scope of delivery	2
1.2 Warnings	2
1.3 Notes on safety	3
<b>2. Copyright</b>	3
<b>3. Preparatory work / Personnel requirement</b>	4
3.1 Personnel requirements, preparations	4
3.2 Required tools and equipment	4
3.3 Tightening torques for screws and bolts	4
<b>4. Assembling the kit</b>	5
4.1 Placing and fastening the floor assembly	5
4.2 Installation of the front wall	6
4.3 Mounting the rear stanchions	6
4.4 Placing and fastening the roof	7
4.5 Fitting doors, flaps, side stanchions, drop sides, insertion slats	8
4.6 Optional additional equipment	9
4.7 Finishing work	10
<b>5. Maintenance, service, spare parts</b>	11
<b>6. Disposal of disused bodies or components</b>	11
<b>7. Kit Contents</b>	12

## 1. Safety Instructions and Warnings



These instructions explain how to assemble the curtainsider kit 18x-2. The assembly is usually carried out on the chassis frame. Alternatively, the kit is also suitable for prefabrication.

In order to create a flawless assembly, **it is imperative that you adhere to these work instructions**, especially the following warnings, **otherwise the warranty will be voided**. Coloured representations serve for illustration only. **Get in touch with us immediately in case of uncertainties.**

### 1.1 Check the kit contents

- **Check the dispatch with the enclosed packing list for completeness.** Report any transport damage to the forwarding agent immediately. Please understand that we reserve the right to make changes to the design, equipment and technology of the delivery. The general kit contents are listed on page 12.

### 1.2 Warnings

The intended purpose of the kit is usually not known exactly by Alu-Team. **As a body builder, you must coordinate the ordering and processing of the kit with the requirements of your purchaser and the body guidelines of the chassis manufacturers.** This also applies to materials used and surface finishes. Damage due to transport goods such as aggressive chemicals are not a reason for complaint.

- Store the kit in a dry and clean place (not outdoors).
- The seating faces of the module assemblies must be free from contamination and dirt.

- Never apply bolts diagonally, they must not be tilted. **Note the torques** (2.3). Falling below this value weakens the strength of the system; significantly exceeding this value can cause damage to components!
- Connect the component parts directly with the **screws** that are supplied. These may **only be used once**. Third party or used screws or bolts endanger operational safety. Also in case of repairs, **always use new AluTeam bolts**.
- The enclosed **instructions for the installation and operation of the elevating roof device must be complied with**. Driving with the (elevating) roof raised is not permitted!
- Before lifting or lowering the roof, open the rear doors, centre stanchions, side tarpaulins, drop sides and remove the insertion slats. Otherwise components may be damaged. Damage caused by failure to open the components is not grounds for complaint. When lowering the roof, make sure that the centre stanchions do not rest on the subframe.

### 1.3 Safety instructions

#### Pay attention to your own safety and to that of your employees.

Working with kits involves hazards. Therefore caution is always advised, in particular you should absolutely:

- ... when unloading / transporting the kit in the transport rack using a crane, use a suitable lifting beam. When using a forklift truck, secure the kit against tilting, tipping and falling over
- ... Only place transport racks on level surfaces. Secure them against tilting, tipping and falling over.
- ... Always wear a helmet when working with cranes and only lift assemblies vertically and not at an angle. Never step under lifted loads. Always suspend the crane from the centre of gravity of the assembly.
- ... Remove all packing tape in the specified order during assembly. Remove the white packing tape first. The individual components or groups are held in place by red packing tape. Secure the part to be removed against tipping over before cutting the packing tape.
- ... When using an assembly carriage, secure it against rolling away.
- ... If you lift the floor using the lashing brackets, use at least 2 hooks with sufficient load-bearing capacity.
- ... Comply with the legal requirements such as StVZO (regulations authorising the use of vehicles for road traffic), BGV D 29, BGV A1, BGG 915, BGG 916. The body builder bears the responsibility.
- ... Ensure sufficient ventilation and air extraction in case of cleaning and sealing, and comply with the processing, safety and disposal specifications of the adhesive / sealing compound manufacturer. Request the safety sheet and the instructions for use from the manufacturer as printed on the cartridge or contact **+49 (0)521 4173 -1110**.



suspended loads on the crane



falling objects



toppling parts or assemblies



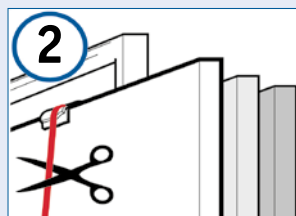
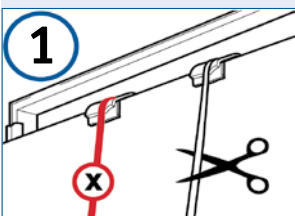
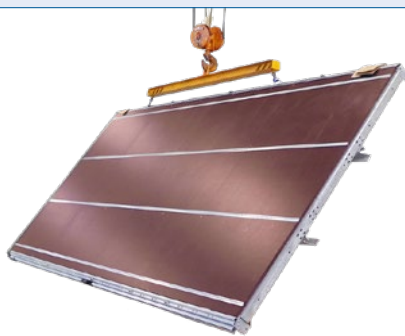
Risk due to high-pressure cleaners



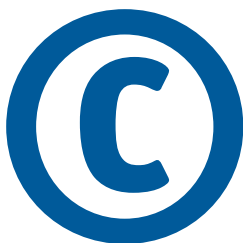
hazardous materials



Risk of scalding



## 2. Copyright



AluTeam holds the copyright to these instructions. They are intended for the assembly company and its personnel and may not, neither as a whole nor in part, be:

- reproduced
- distributed or
- otherwise disclosed.

***Infringements can result in civil and criminal charges!***

### 3. Preparatory work / personnel requirement

AluTeam kits can be assembled in any well-equipped workshop! Carry out the following preparations beforehand:

#### 3.1 Personnel requirement, preparations

For the assembly of kits 18x-2, 1-2 fitters with training as a vehicle or body maker or equivalent training are required.

- Check that the delivery and order match (1.1) and that all assemblies and components are undamaged. Damage can complicate assembly or make assembly impossible!
- Secure the entire kit as well as the individual assemblies against falling over. Store the latter on the pallet in the order required for assembling the body. Do not cut the red straps that secure components until you need to remove the component (see 1.2).
- Provide **enough free space** (min. 3 m) on both sides and behind the vehicle as well as the necessary **tools and equipment** (2.2).
- The ambient temperature for component parts, as well as adhesive and sealing compounds, must be minimum 15°C.

**Attention:** The final strength of the sealant is reached after at 20°C.

#### 3.2 Required tools and equipment

Place the following equipment correctly before the assembly:

- tape measure (10 m)
- Precision compressed-air powered or cordless screwdriver e.g. Fein Accutec or comparable
- 13-/17-/19 mm open-end spanner or ratchet or small ratchet with suitable nuts, possibly impact wrench and extension
- Screwdriver bit Tx 30 if necessary
- Torque wrench up to 300 Nm
- Hammer (500 gr.)
- Air or manual mastic gun for 310 ml sealant cartridges
- Rivet gun for rivet diameter 5 mm
- Crane, forklift - load capacity min. 1.5 to., traverse / lifting gear
- 2 lifting slings min. 500 kg load capacity each
- 2 stepladders or assembly scaffold
- Carbide drill Ø 5.0 mm (shorter than the wall-thickness!)
- Allen spanner or screw nuts 4/5/8/10/18
- 5 mm hexagon socket spanner or nut
- Threadlocker high strength e.g. Weicon AN 306-30

#### 3.3 Tightening torques of the bolts

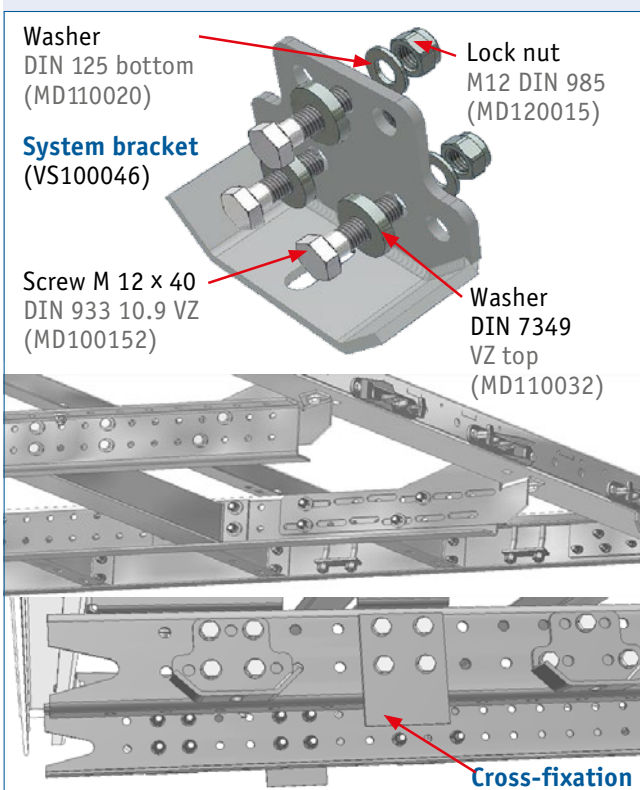
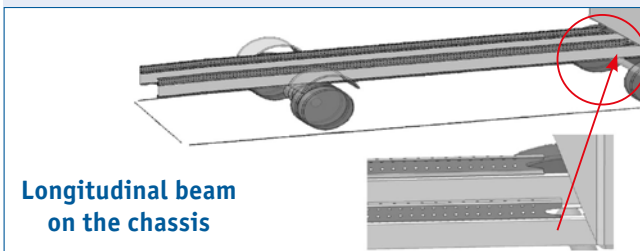
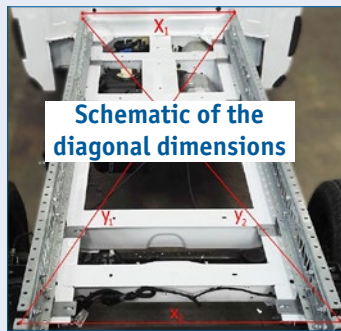
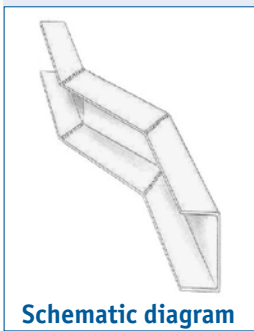
The **settings** for the supplied screws and bolts must be **checked using appropriate measuring equipment**. The torques apply when the thread is dry. Do not use third-party screws (1.2).

**Adjust the following tightening torque in each case:**

- Screw M 8                    25 Nm ± 1 Nm
- Screw M 10                   49 Nm ± 5 Nm
- Screw M 12                   86 Nm ± 8 Nm
- Screw M 16                   210 Nm ± 10 Nm



## 4. Assembly of the construction set



### 4.1 Placing and fastening the floor assembly

The floor assembly is pre-assembled for all common truck chassis.

Comply with the **body and conversion guidelines of the chassis manufacturer**, especially the positioning and type of substructure attachment, connection, shear-soft or shear-resistant. At least the two front **fastenings must be spring-mounted**. Otherwise, dynamic driving forces (e.g. during bends, load changes, uneven loading) are transmitted to the body. This can lead to cracks in the subframe and the body structure and is not a reason for complaint!

**Attention:** You are responsible for the constructional design of the resilient mounting as well as possible adaptation work such as the longitudinal beam design in the case of a chassis cranking.

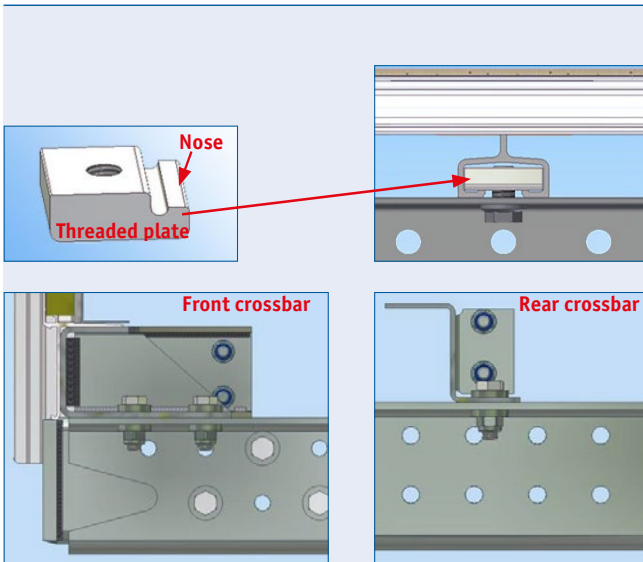
- If the chassis is wider at the front than at the rear, slit the upper and lower longitudinal beam flanges at two points and bend the beam out or towards each other (*schematic diagram*). Weld the bars together again in a professional manner. Protect the flanges from corrosion, e.g. with zinc spray. Detach the cross beams in the bend area from the floor assembly, punch them to fit and reinstall them.
- **Place the longitudinal beams on the vehicle chassis.** The V-Shaped section must point in the driver cab direction and the upper leg supports to outside.
- Align the beams according to the **diagonal dimension y** and **hole separation dimension x**. Be sure to comply with the dimensional dependencies  $y_1 = y_2$  (*Diagonal dimensions schematic*). The difference between the diagonals may not exceed 4 mm!

The beams should rest on the longitudinal stringers flush with the outer edge of the vehicle frame and keep the same separation distance to the driver cab in front in each case.

- **Fasten the supplied brackets (system brackets)** with the longitudinal beams **with three or four screws**.
- **Connect the system brackets to the brackets of the chassis.** On the Mercedes Atego, the holes in the longitudinal chassis beams are arranged at 50 mm intervals. Vehicles from other manufacturers have brackets with elongated holes in the direction of travel.
- Depending on the type of your order, you can, for example, temporarily remove individual floor plates for better accessibility when setting up. When reinserting, **bolt the respective floor plate to the cross beams in order to transfer the forces directly into the subframe!**
- **Mount the cross-fixation at the front left and right.**
- Fasten the two outer lashing brackets to a lifting beam suspended in the crane. **Remove the floor assembly from the support frame.**

**Danger:** Crane-work involves hazards to life and limb. Never step under lifted loads! Always wear a helmet. Only lift loads vertically and not at an angle! Suspension in the crane must always be via the assembly centre of gravity - **the floor assembly must be suspended in the crane horizontally as shown in the adjacent figure!**



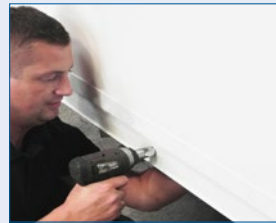
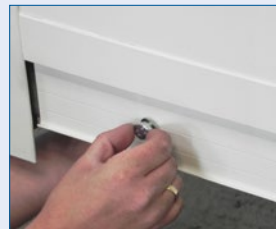


- **Position the floor** in longitudinal and transverse direction for the screwed connection with the longitudinal beams. Adjust the distance to the driver cab according to the chassis manufacturer's guidelines. Measure the distance from the outer frame to the longitudinal members at the front and rear as well as on the left and right and adjust the dimensions.



**Danger:** *Overturning assemblies endanger life and limb*  
Secure the floor against tipping and falling.

- **In the case of an aluminium substructure, insert the threaded plates supplied into the cross beams and screw the longitudinal beams to the floor with the MD100354 screws.** When doing so, always push the clamping claws into the cross beams with the "nose" pointing towards the centre of the vehicle.
- Carry out the bolting on the front and rear crossbars as shown in the diagram opposite. Align the floor assembly with the hole pattern in the longitudinal beams.



#### 4.2 Installation of the front wall

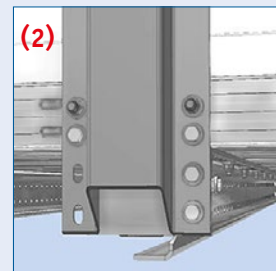
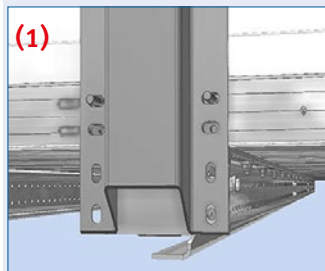
- Remove the front wall from the transport frame using a crane and the appropriate lifting aids such as a lifting beam and apply it to the floor assembly.



**Danger:** *Crane-work involves hazards to life and limb.*  
*Never step under lifted loads! Always wear a helmet.*  
*Only lift loads vertically and not at an angle! The suspension in the crane must always be over the centre of gravity of the assembly!*

- To prevent the wall from tipping, let it stop secured in the crane.
- Screw the front wall and the corner stanchions together with the cap screws M 16, MD100249. **Always comply with the tightening torques specified in 2.3** (here: 210 Nm  $\pm$  10 Nm).
- Fasten the lower chord profile of the front wall to the front crossbar. Use washers M 10, MD100002 and nuts MD110002 associated with the front crossbar and with threadlocking.
- **For kits with front wall supports** the supports are mounted on the wall and stud bolts are provided on the floor assembly. After sliding on the front wall (1), connect it to the bottom chord profile, the stud bolts and the floor assembly using the hexagon head bolts M12, MD100236, the washers MD110032 and the nuts (2).

**Attention:** *For the variant with front wall supports but without longitudinal beams, screw them to the bottom chord profile of the front wall accordingly.*



#### 4.3 Mounting the rear stanchions

- Remove the rear stanchions from the transport frame. Place them on the side of the rear crossbar of the subframe.
- One fitter holds the stanchion at the correct angle of 90°, the other bolts it with the M16 MD100249 bolts.
- Check the angularity of the previously assembled assemblies to ensure easier placement of the roof.



#### 4.4 Placement and fastening of the roof

- **Lift the roof** out of the transport rack using the crane and lifting slings fastened to the upper **roof beam** and **set it down straight on the floor**. When setting it down, the fastening pins of the roof must not bend to the side. If necessary, place pallets, trestles or similar under the roof beams.
- Remove the **transport locks** and fasten the lifting gear to both roof beams. **Lift the roof level**. It should hang balanced to facilitate assembly.

**Attention:** *Lifting by the crossbars will damage them. This is not a reason for complaint. Never use chains! These damage the sealing lips and the aluminium profile of the roof beam.*



**Danger:** *Crane-work involves hazards to life and limb. Never step under lifted loads! Wear a helmet. Lift loads only vertically and not diagonally! The suspension must be above the centre of gravity of the assembly!*

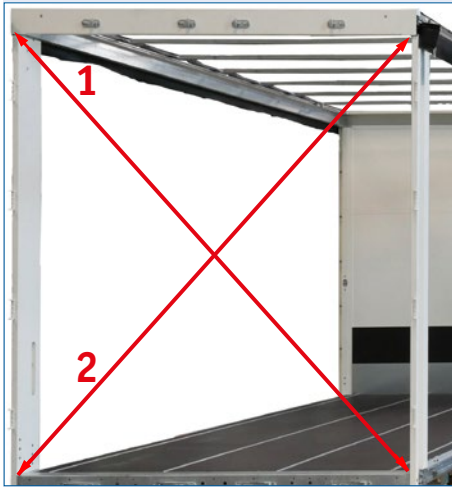
- Keep the roof horizontal; while doing so, an employee secures the centre of gravity of the component. Lower the roof slowly. **Insert the fixing pegs from above first into the front wall corner stanchions, then into the rear stanchions**. When doing this, the base-plates of the fastening pegs must lie on the corner stanchions. This is the only way to screw the roof on properly!
- **Screw the fastening pegs of the roof to the corner stanchions using the M 10 pan-head screws MD100243 and washers MD110002 supplied (not for elevating roof).**
- Connect the front roof end cross beam to the front wall panel from inside using MD100202 self-drilling screws (not for elevating roof).
- Clean the exterior sealing surfaces with AluTeam adhesive cleaner. After approx. 5 minutes of ventilation, seal over the entire width of the front wall. The sealing seam should only be pressed in and smoothed with water - without soap additives (not for elevating roof).
- **Seal the front roof end cross beam** against the **front wall with the enclosed sealant**.
- For an elevating roof, remove the locking pin from the Liftmaster and lift each corner of the roof slightly. Connect the pivot bearing to each roof structure support by driving the  $\varnothing 12 \times 50$  bolt into the guide channel of the Liftmaster. Secure the bolt with the M 8 x 10 grub screw (see installation instructions for the elevating roof).
- In the case of a sliding roof, check its function, such as the engagement of the closed roof at the rear, the opened roof at the front, as well as the overall movability.
- In the case of roofs with a moving flap over loading platforms, the folding and locking function of the flap on the corner pillar must be checked. **The open flap must be able to slide without resting on the roof strap.**

In order to lock the flap to the rear stanchions, drill a 16 mm diameter hole in the right-hand corner stanchion for the flap's spring latch. The hole must be matched to the position of the spring latch!

- If you are fitting **the roof tarpaulin yourself**, fasten it to the frame cross beam using the drip moulding. Align the tarpaulin and fasten it to the bows and the front crossbar. Now tighten it to the rear and adjust the length if necessary. Place the drip moulding so that the short leg points upwards. Rivet it into the holes provided.



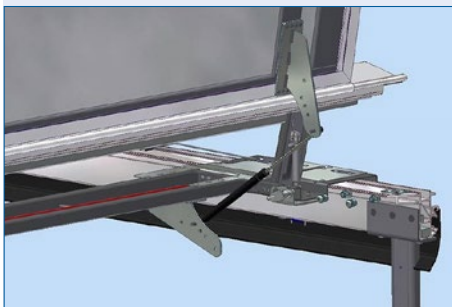
- For the **tightness of the body**, rivet the tarpaulin sealing lip in the rear area on the rear stanchion with a blind rivet. Check the corners for tightness and re-seal if necessary.



#### 4.5 Fitting doors, flaps, side stanchions, drop sides, insertion slats



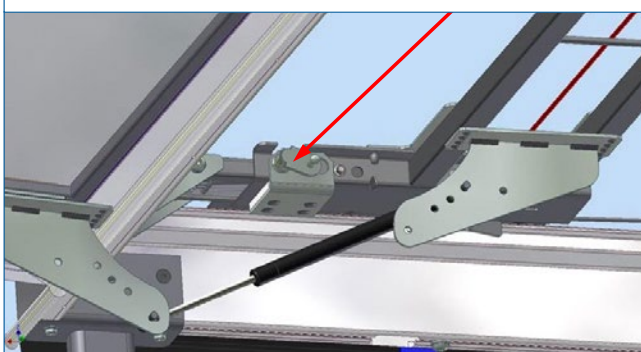
- Before installing rear doors or an LBW (gate) top flap, **measure the diagonals (1 + 2) of the frame**. Correct them if necessary until they are congruent.
- For a kit with **frame doors**, **hang them into the hinge blocks of the rear stanchions using a crane**. Screw them together with the supplied hinge bolts MD100351.
- Then align the counter holders of the espagnolette locks on the rear cross bar and the rear roof end cross bar screw them on tightly.
- Close the rear doors to check the fit. If necessary, adjust them – depending on the door version – using the counter-holders on the frame cross beams.
- **For a fixed roof**, if necessary, **fasten the top flap to the frame** using screws MD 100058 at the holes provided in the hinge.
- **For the sliding roof**, if necessary, **fasten the top flap** to the header bracket at the holes provided in the hinge.
- Then seal the crossovers.



- Take the gas struts (piston rod points downwards) and snap them into place on the ball heads.
- **Bolt the pre-assembled tarpaulin tensioning gears** sideways to the outer frame or the rear pillar with the bolts M 8 MD100256 as well as nuts MD120001 and washers MD110036. The upper edge of the tensioning ratchet must rest against the lower edge of the rear stanchion reinforcement. The fastening of the ratchet also connects the rear frame to the subframe.
- **Hanging the side stanchions** is best done with a crane and lifting gear. Push the rollers of the side stanchions through the existing openings into the lower channel of the roof beam. It is important that the stanchion lock is on the outside of the body.

#### Operating instructions:

Caution! Each time the gantry beam is closed, the end carriage must be locked with the **side locking pins!** Only then close the flap.



- **Secure the side stanchions against falling out** by screwing the screws M 8, MD100243 included in the assembly material with the threaded plates PG510054.002 and washers MD110002 approx. 30 mm from the opening into the channel and then tighten them firmly.
- Check the side stanchions for displacement and the lock for function.





- If you **have ordered drop sides** with the kit, position them horizontally with the hinge bolt to the bearing housing.
- Swivel the drop sides downwards by approx. 45°. Then push the pin of the hinge bolt sideways into the slot of the bearing housing as shown in the adjacent figure. Fold the drop side upwards - the hinges are now positively connected.

**Attention:** *The large, unwieldy drop sides pose a risk of injury. Therefore, always carry out this work with two people.*

- Check the **position of the hinge bolts** on the respective drop side and correct them if necessary. Tighten the hinge bolts with a torque of 25 Nm  $\pm$  1 Nm.
- **Check the function** of the drop sides by opening and closing them several times:

To do this, open the locks of one drop side at a time and swivel them downwards 180°. Then fold the drop side back up at the same angle and close it again. The swivelling movement is done by means of manual force at one lateral end of the aluminium drop side.

**During the swivelling movement, the hinge parts must remain positively connected.**

- Insert slats with a hole for combination rails (*optional*) into the insertion pockets provided. **Make sure that the smooth side of the insertion slat is always on the inside of the body.**



#### 4.6 Optional additional equipment

We offer other additional options such as the pre-assembled rear extension ladder or the door holder. On delivery or at the latest during finishing work, check that the screws are firmly tightened.



#### 4.7 Completion work

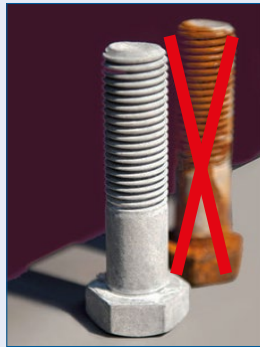
- When **making up the side tarpaulin**, it must cover the tarpaulin hook-in edge by approx. 25 to 30 mm so that the hook of the tarpaulin tensioner is only loaded in its curve. Loading at the tip of the hook is not permitted!

To prevent the side tarpaulin from rolling out, place the tensioning pins in the pre-drilled holes after the tarpaulin has been mounted and hammer them tight.



**Attention:** Paints, solvents and dust are harmful to health. Protect yourself!

- Pay attention **in particular to the corrosion protection in case of subsequently attached component parts or with changes to AluTeam components.** Above all, you must always prevent contact corrosion caused by different materials. Otherwise, the guarantee on the painting, coating and bond is voided. **Also take** the guidelines **of the vehicle manufacturers into consideration !**



- Our coil-coated and powder-coated parts can generally be painted over with conventional wet paints. For secure, reliable adhesion, consult the paint supplier, especially regarding the primer.

Untreated and zinc-coated profiles are to be treated with a suitable primer before painting. The temperature in the paint booth must not exceed 60°C.

- **For an elevating roof kit**, affix the included **elevating scale (sticker)** to the right of the elevating scale on the guide channel of each elevating roof jig after final painting.

- Bonded **load securing stickers** are only valid in conjunction with a certificate issued by AluTeam.



## 5. Maintenance, Service, Spare Parts



For the body maintenance, check all screws and bolts for tight fit at regular intervals; however, at least once a year. At the same time, check the specified torque.

- Locks and lock cylinders are maintenance parts. Lubricate them to keep them in working order if necessary. Frozen locks due to lack of maintenance are not a reason for complaint.



- When cleaning the body with a steam jet cleaner (after 6 weeks at the earliest) maintain a minimum nozzle distance of 300 mm. The maximum allowable water temperature of the cleaner is 60°C, the working pressure is 100 bar, and the pH-value is 4 - 10. Rinse immediately with clean water. Remove flash rust on stainless steel (including the frame) using common household stainless steel cleaners.
- After cleaning, always clean all seal with a rubber care product.

In the case of queries related to the assembly, our **Customer Service** will be glad to help you:

**Tel.: +49 (0)521-41 73 11-30,**  
**e-mail: m.wismueller@aluteam.de**

If you require **spare parts** please contact either your local sales representative or call us at:

**Tel.: +49 (0)521 - 41 73 11 - 10.**

Please send e-mails to: [info@aluteam.de](mailto:info@aluteam.de)



## 6. Disposal of old box bodies or components



According to the Industrial Waste Ordinance - GewAbfV (or the regulations valid in your country), discarded components must be recycled. Sort the respective materials and then proceed as follows:

- Remove **the metallic outer layers** from the foam core and recycle them as well as the aluminium profiles via the scrap trade. The same applies to the steel and / or stainless-steel components of the frames.
- A **PUR foam core** can be incinerated in thermal waste treatment plants without harming the environment. In the process, the energy contained in the insulation material is converted into primary energy.
- Plywood can also be used for energy recovery. Odour nuisance due to the ammonium additives in the binders must be avoided.

In general, plywoods, like particleboards, can be burned in wood-fired furnaces with at least 50 kW nominal heat output. They are subject to significantly stricter carbon monoxide limits than solid wood, for example. These values are mostly only achieved by automatically loaded plants.

- Roof and side tarpaulins contain plastics and must be taken to a recognised disposal company in accordance with § 3 GewAbfV.

## 7. Kit contents



Please understand that we must reserve the right to make changes to the design, features and technology delivered.

### Included in the BR18x-2 kit contents:

- 2 Steel longitudinal beams hot-galvanised, loose incl. brackets and push plates
- Floor assembly ① incl. pre-assembled floor plate with screen-printed, anti-slip or barley grain surface, pre-assembled tensioning ratchets for side tarpaulins at the rear, assembled lashing rings in the outer frame in accordance with DIN/EN, assembled centre stanchion bearing, if applicable stop bar for LBW (gate), if necessary mounted forklift ram protection, on request with recessed airline rails, pre-mounted tensioning ratchet (incl. pan head screws M 8, MD100256 as well as hexagon nuts MD120001 and washers MD110036), pre-mounted tensioning ratchets
- further pre-assembled options for the floor assembly:  
Door stop, rear extension ladder
- FerroFoam® front wall ② with aluminium stanchions and pre-mounted wear plate, optionally with elevating roof device, depending on vehicle tonnage or customer request with assembled front wall supports
- Aluminium rear stanchions ③ optionally with FerroFoam® doors or top flap ⑦
- Completely assembled roof ④ with sliding roof or as fixed roof incl. tarpaulin roller and lateral sealing lips (*incl. assembly material*)
- With sliding roof incl. operating rod and optional roof tarpaulin
- Slides, pockets and carriages assembled, heights adjusted ⑤
- Without side tarpaulins and optionally without roof tarpaulin!
- Optionally with aluminium lashing slats and / or drop sides ⑥
- Cap screws with hexagon socket M 16, MD100249 for fastening front wall and rear frame
- Hexagon bolts MD100002 and nuts M 10 MD120044 with washers MD110002 to fix the front wall, for versions from 18 to. GG also hexagon bolts MD100152 and nuts M 12, MD120015 with washers MD110020 for fastening the front wall supports.
- Pan-head screws with hexagon socket M 10, MD100249 (*front*) and M 8, MD100269 (*rear*) for roof fastening (*not for elevating roof!*)
- Drilling screws MD100202, 3.5 x 20 mm for roof fastening (*not for elevating roof!*)
- Pan-head screws M 8, MD100243 with washers MD110002 for securing the centre stanchions and for roof fastening
- Sealant, adhesive cleaner, paper towels (*not for elevating roof!*)
- **only for elevating roof version:**
- Bolt Ø 12 x 50 mm for connecting the Liftmaster to the pivot bearing, lens flange head screw M 8 x 10 mm for securing the bolt.
  - Lift scale sticker to be attached next to the lift indicator.
  - Installation and operating instructions for the elevating roof device
- If necessary, wing drilling screw with countersunk head for screwing the floor plates to the subframe depending on the floor thickness:
  - MD100300 Wing drilling screw 6x60 for floor thickness ≥ 24mm
  - MD100272 Wing drilling screw 6.3x45 for floor thickness ≤ 21mm
- Stick-on label with body number
- Assembly instructions
- **optional** Stick-on label "Tested freight protection"

**Attention:** The sticker is only valid with a certificate issued by AluTeam!