ALUHEBETECHNIK
Gesellschaft mbH

Office:
Hauptplatz 23
Tel. (43) 2142 64260
Fax. (43) 2142 6434

Factory:
Bahnstraße 34
(43) 2142 64360
(43) 2142 64366

A-2474 Gattendorf
E-Mail:
office@aht-mhw.com

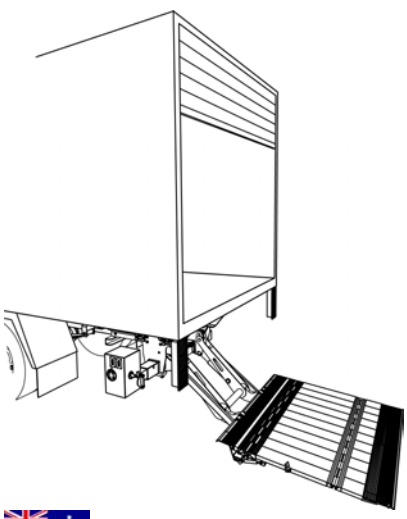
INSTALLER'S MANUAL
FOR THE "AHT"
TAIL LIFT

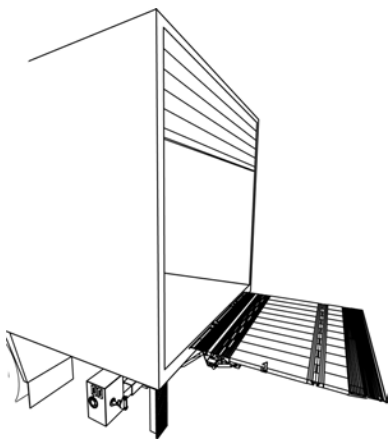
CE

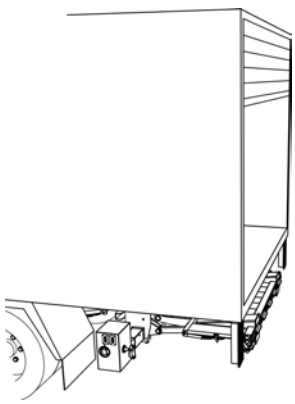
UTK-1000ST/AL
UTK-2000ST/AL-SS

with double-acting feed cylinder

LEFT HAND DRIVER







AU

Gattendorf, 2011

SERVICE QUALIFICATIONS TO INSTALL THE TAILGATE LOADER

The installer should be well trained in the proper procedure for installing the AHT before beginning the installation.

Carefully read the manual **before starting to install** the AHT tailgate loader.

Only mature adults, age 18 and above, should install the AHT tailgate loader.

Installer should be well qualified for installing hydraulic equipment.

Installer should be well qualified for installing the electrical equipment.

INSTALLATION GUIDELINES

1) Remove bumpers, lights, tool box etc. from rear of vehicle if necessary.

2) Cut and shape the body and chassis to fit the tailgate.

3) Install the rails onto the truck frame and check them with the checking device.

4) Install the mounting brackets onto the rails.

5) Position the tailgate unit under the truck. Adjust the correct position and fix it.

6) Energize the Power Pack.

7) Raise the platform to truck floor level and fix the sliding brackets with screw clamps onto the rails.

8) Weld the end stop cubes onto the rails.

9) Move out the feed cylinder and install the cross beam with the feed cylinder bearing.

10) Remove the tilting lock.

11) Adjust the platform level.

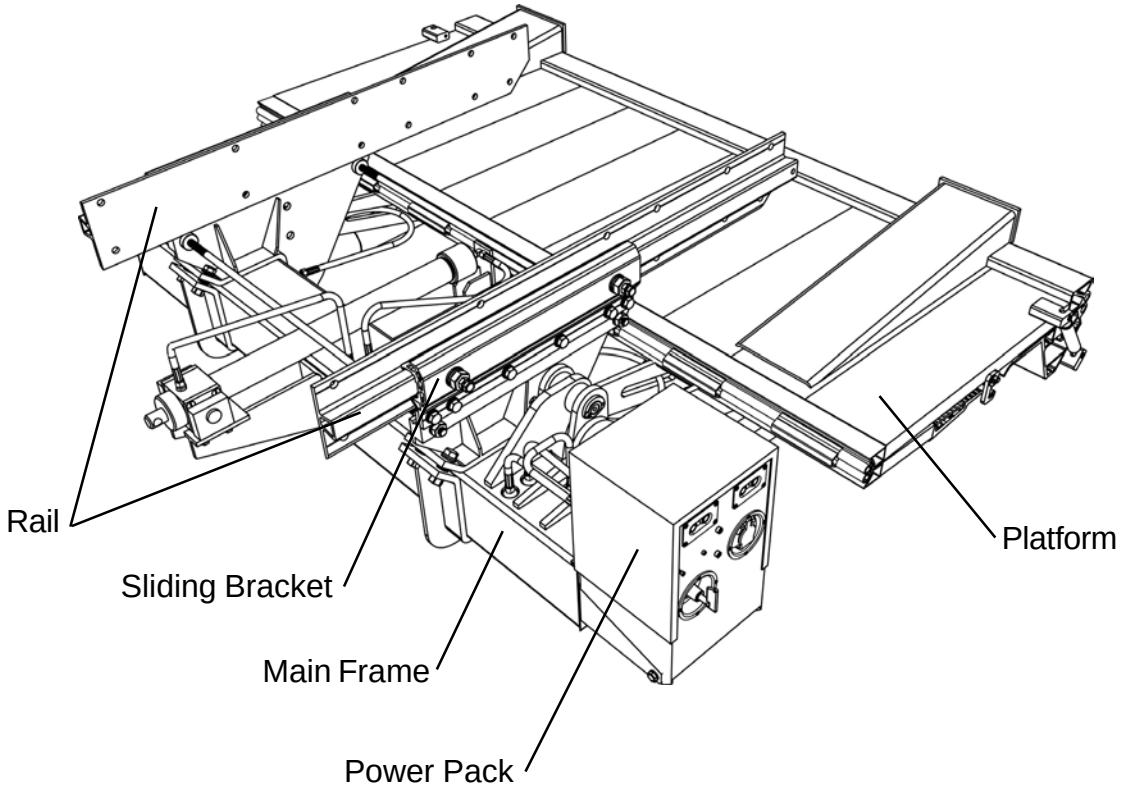
12) Install the warning flags.

13) Finish the installation: Mount lights, spare tire, etc.

UNPACKING THE TAILGATE LOADER

A complete unit consisting of:

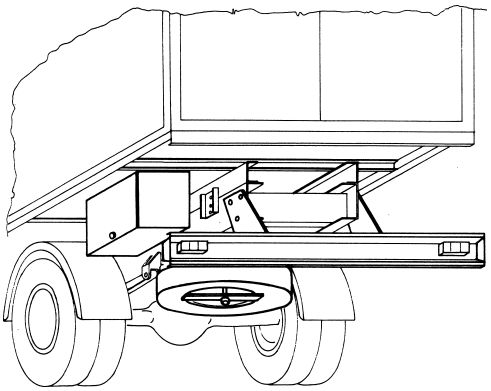
Main frame with lifting arms, cylinders, platform, power pack,sliding brackets, rail, 2 button-remote-control and installation manual.

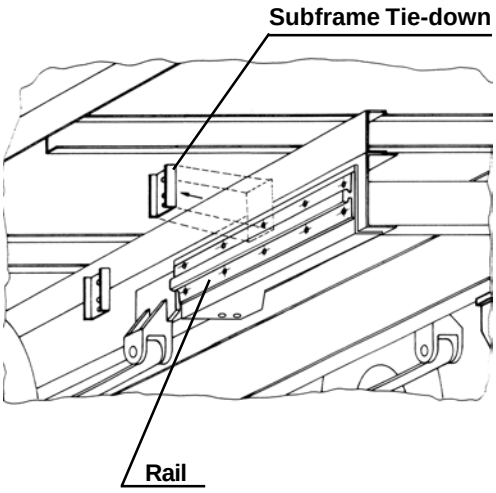


The tailgate loader is completely assembled, tested and ready for use.

PREPARING FOR INSTALLATION

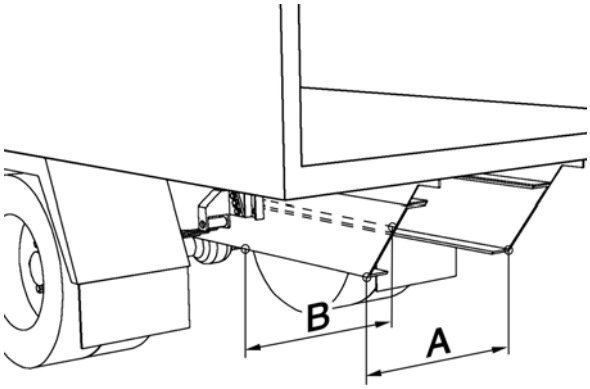
Remove rear lights, bumper, tool box and spare wheel, if necessary.
Disconnect the battery cable to prevent damage to the battery while working on truck body.





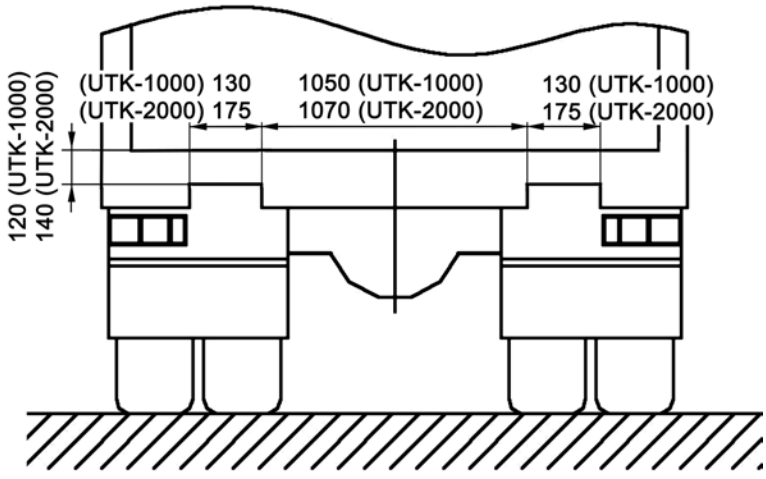
Remove any obstruction attached to the frame of the vehicle that would interfere with the installation. The rail will cover the truck mainframe.

The measurement of dimension A and B must be the same. If A is >1mm in difference of B, you have to attach a sheet between rail and main frame.
max. Tolerance +/-1mm



Cutting and shaping body and chassis to fit the UTK

Cut out the rear of the frame, if necessary, as shown in the installation drawings. **Reinforce the cut outs.**

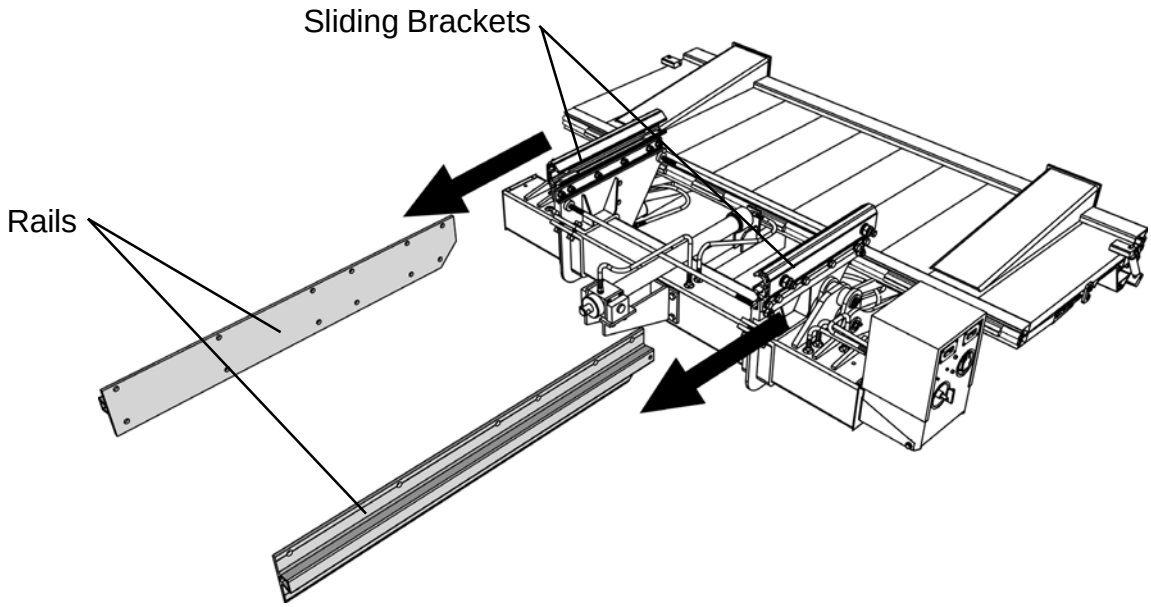


INSTALLATION INSTRUCTIONS

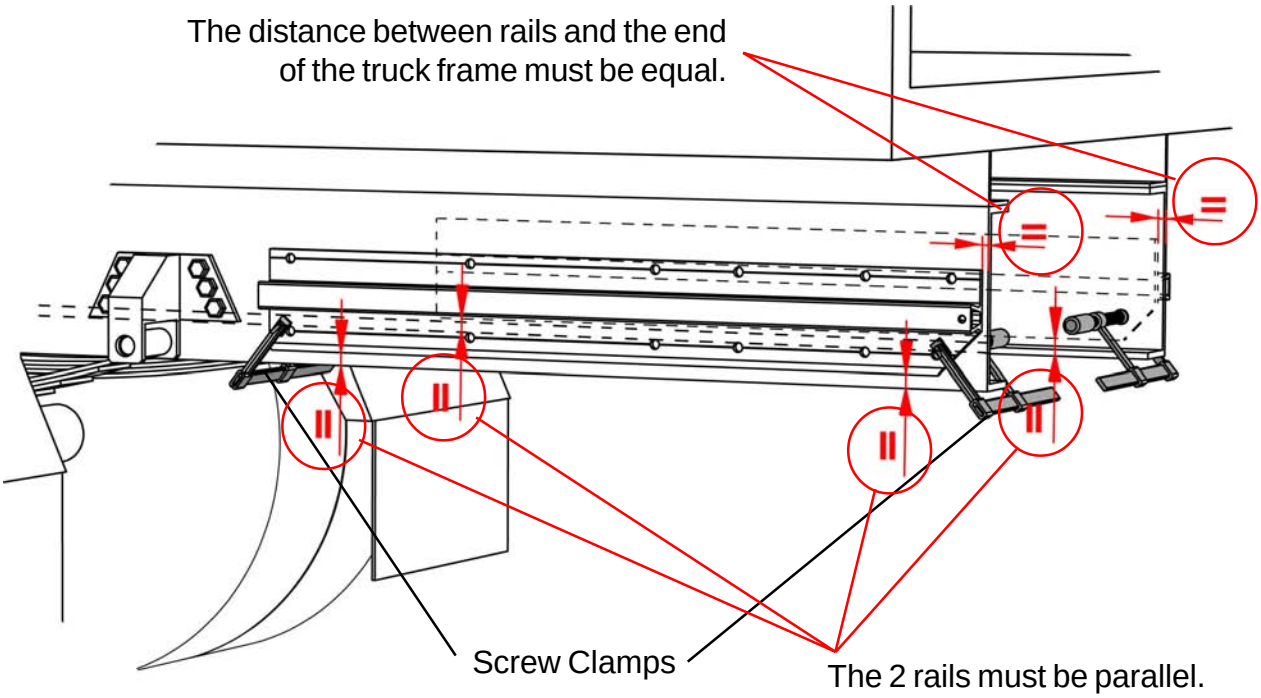
Install the rails

Before you can install the tailgate loader you have to mount the 2 rails onto the truck frame. Pull out the 2 rails from the sliding bracket.

ATTENTION: THE SLIDING ELEMENTS FROM THE SLIDING BRACKETS COME OUT.



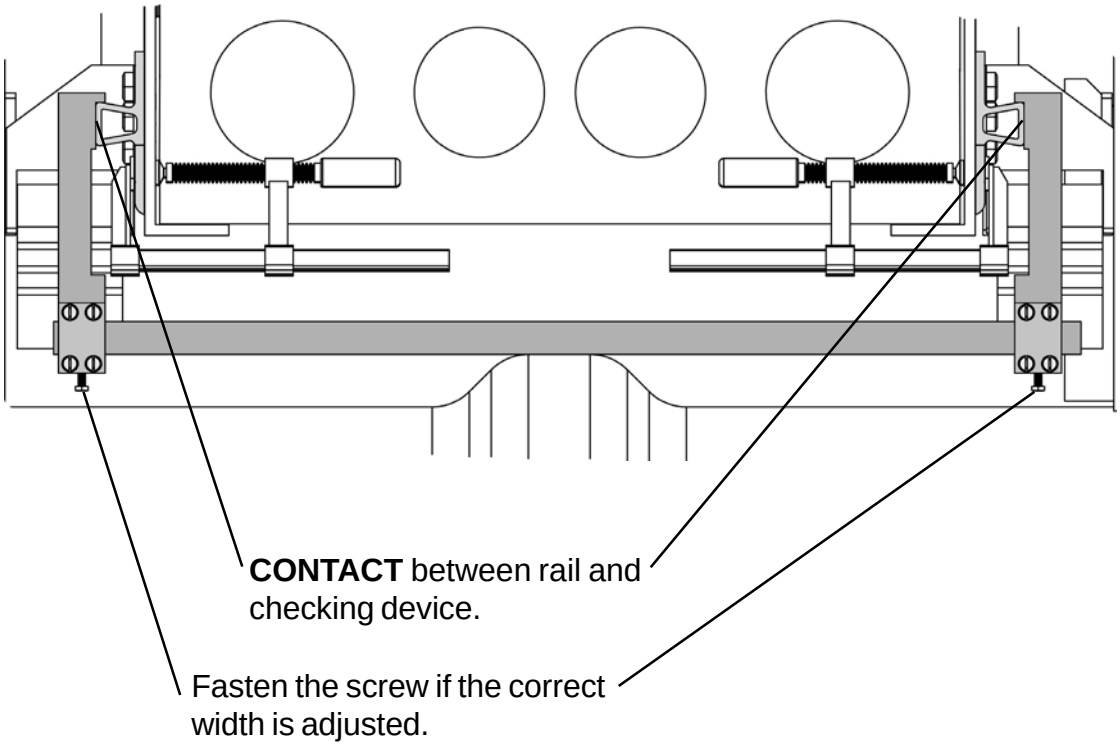
Clamp the 2 rails with screw clamps onto the truck frame. (Position of the rails: See next page)



INSTALLATION INSTRUCTIONS

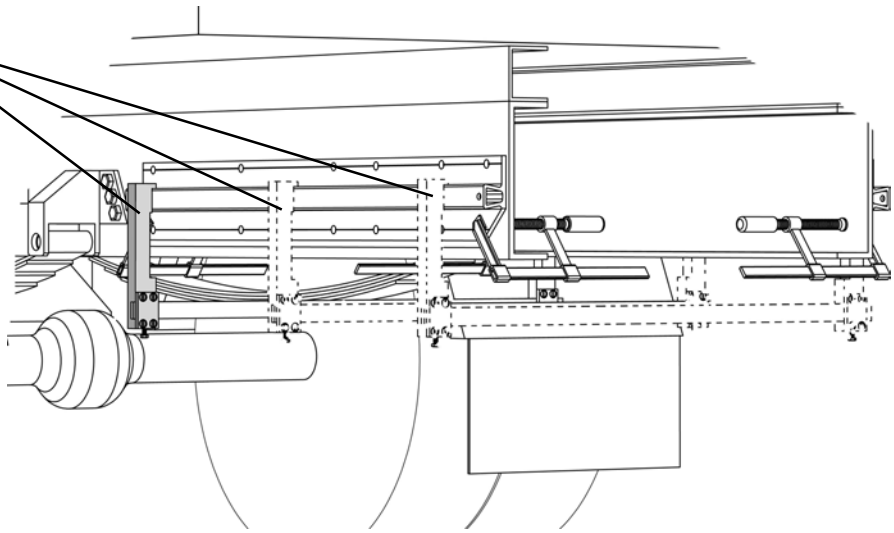
Install the rails

Positionthe the rails as shown in the kinematic drawings. (Page 20 - 28)
Place 1 checking device onto the rails as shown in the picture below.



Check the width of the rails with 1 checking device on the front, middle and rear.
If the difference between front, middle and rear is >1mm, you have to attach a sheet between rail and main frame.
max. Tolerance +/-1mm

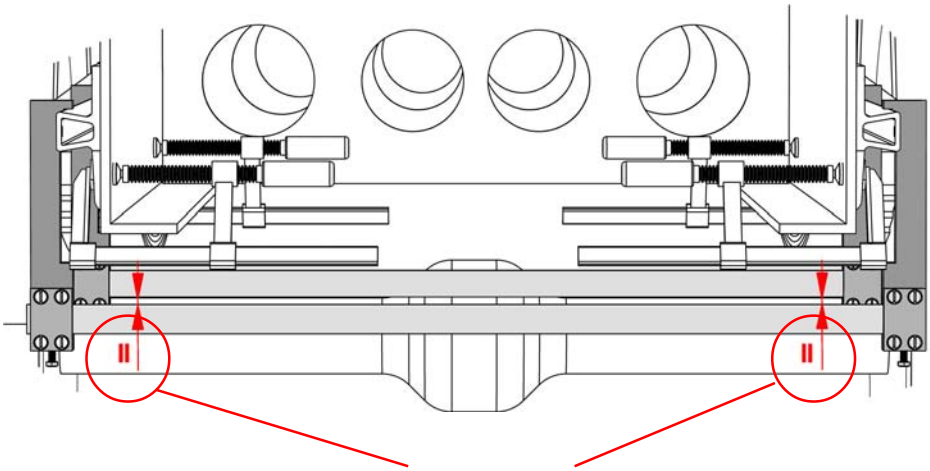
Check the width of the rails on the front, middle and rear side.



INSTALLATION INSTRUCTIONS

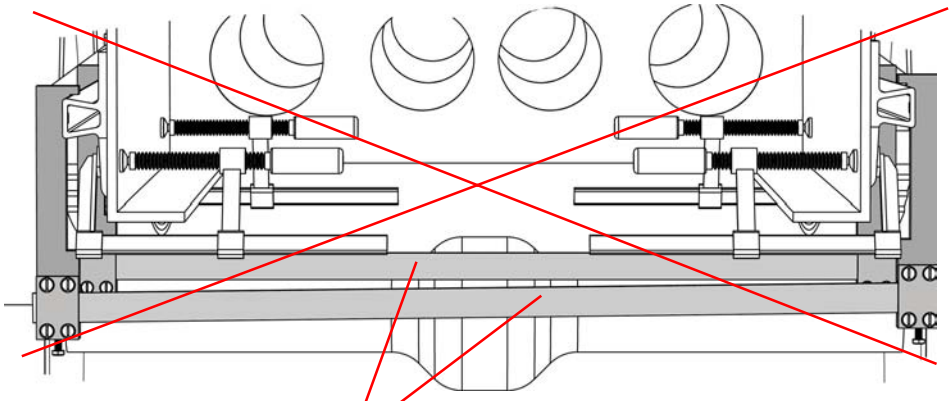
Install the rails

Now place the second checking device onto the rail. One on the front and the other on the rear of the rail.
If you looking behind from the truck, the 2 checking devices must be parallel.



Distance must be equal

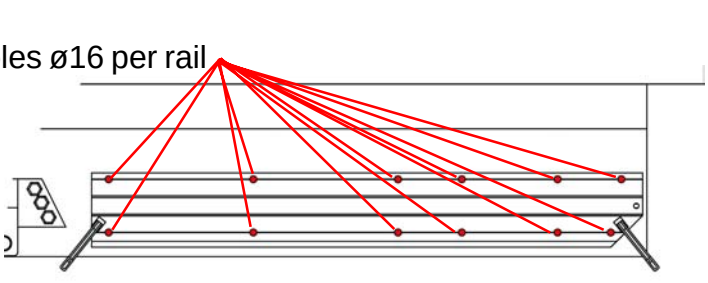
WRONG - The 2 checking devices are not parallel ==> The 2 rails are not parallel (See Page 5).

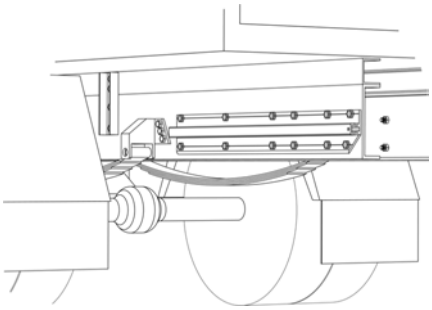


NOT PARALLEL

If all dimension are OK and the 2 rails are parallel, drill holes ø16 in the truck frame (12 per rail)

12 holes ø16 per rail





Drill 2 holes in the truck frame, put a bolt in each one and secure. Then drill all other holes.

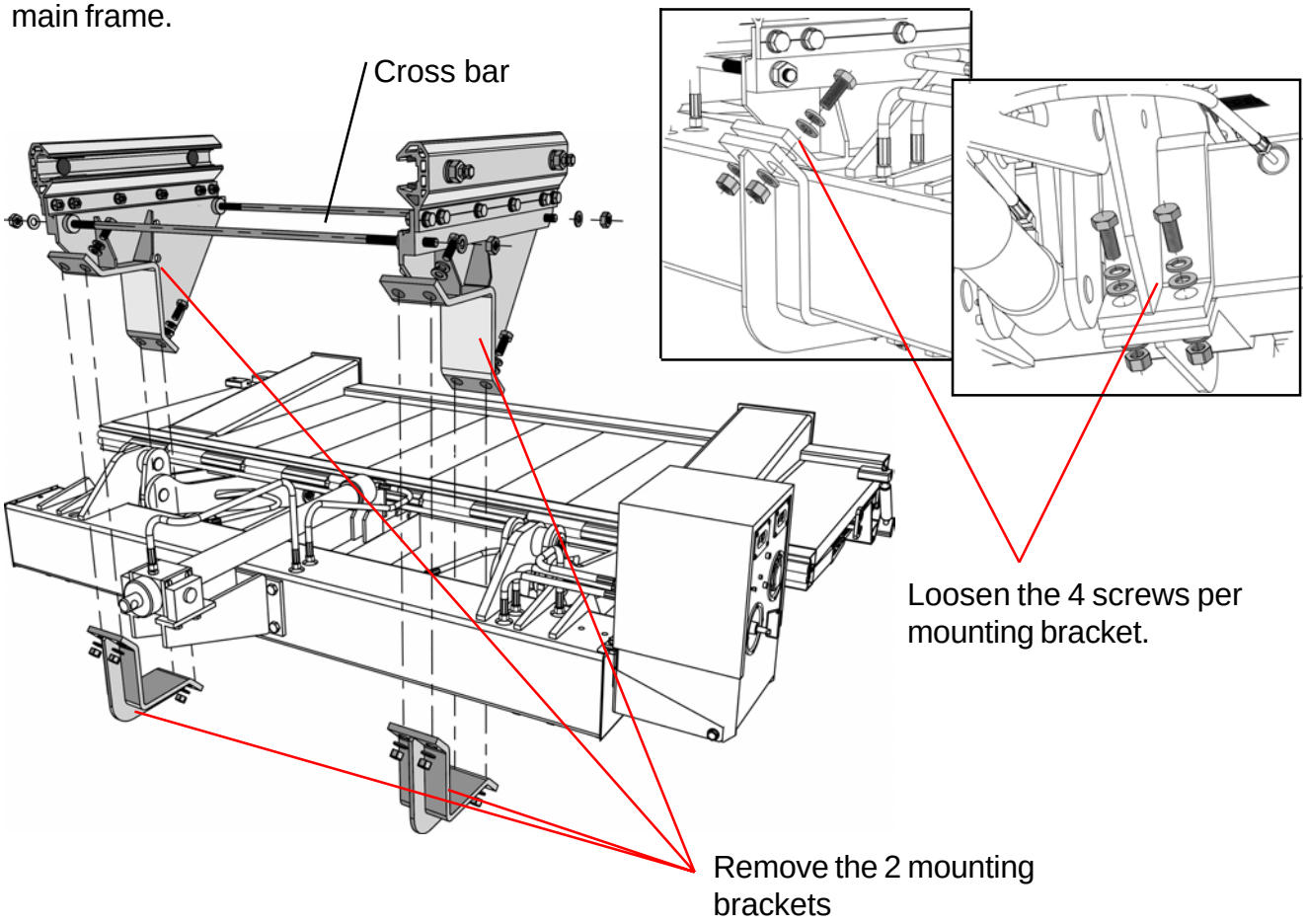
NUMBER OF SCREWS PER RAIL: 12 pieces M16x50

THEN REMOVE ALL SCREW CLAMPS.

INSTALLATION INSTRUCTIONS

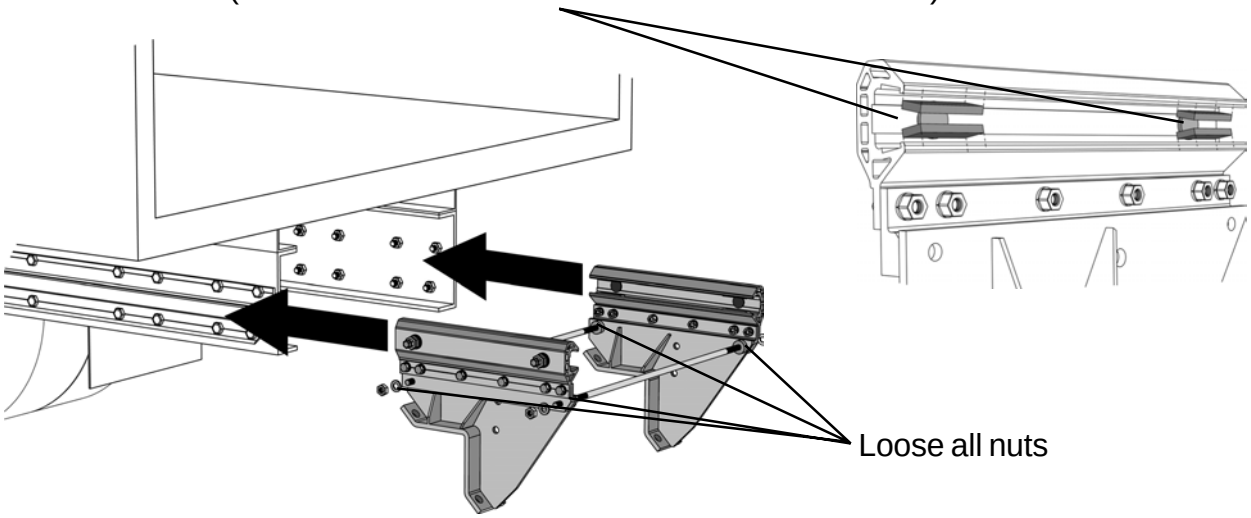
Install the mounting brackets

Loosen the 4 screws per mounting bracket and remove the mounting brackets from the main frame.



Move the mounting brackets onto the rails.

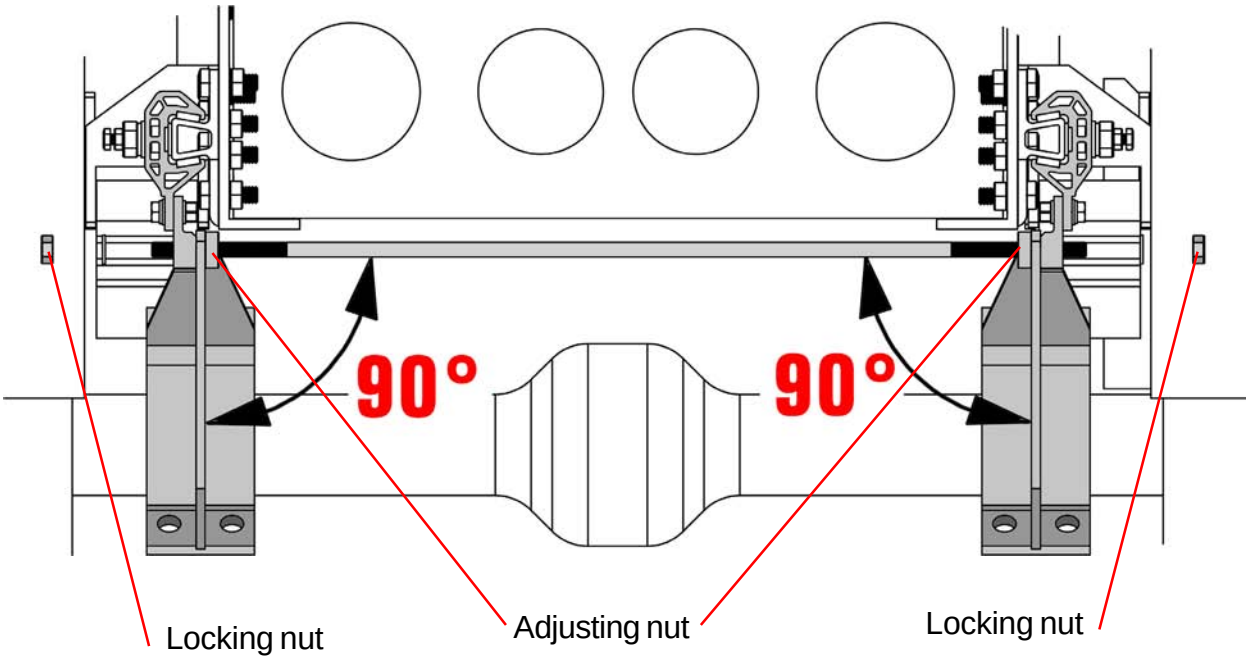
ATTENTION: ALL SLIDING ELEMENTS MUST PLACE IN THE SLIDING BRACKETS (6 SLIDING ELEMENTS PER SLIDING BRACKET)



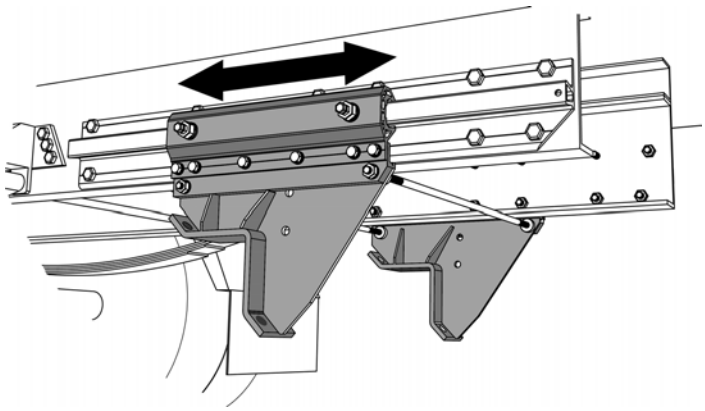
INSTALLATION INSTRUCTIONS

Install the mounting brackets

ATTENTION: The Angle between mounting bracket and cross bar must be 90°
You can adjust the angle with the 2 adjusting nuts on the inner side of cross bar.
If the Angle is correct, you have to lock the 2 cross bars with the locking nut.



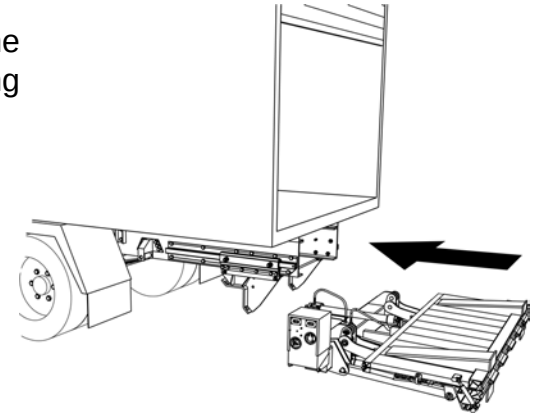
The mounting brackets must move easily with hand.

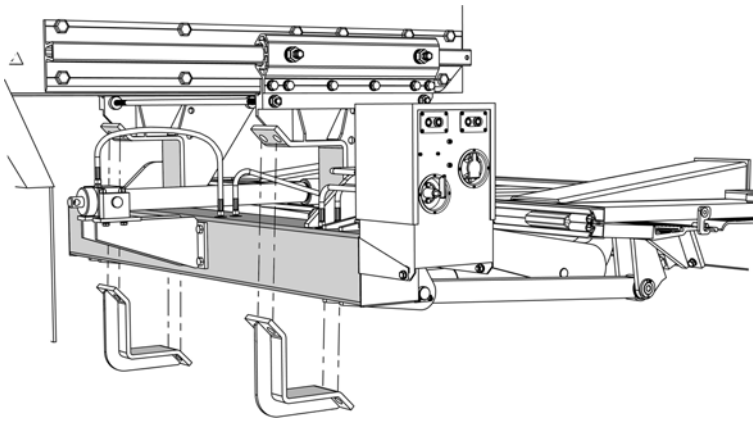


INSTALLATION INSTRUCTIONS

Position the Tailgate

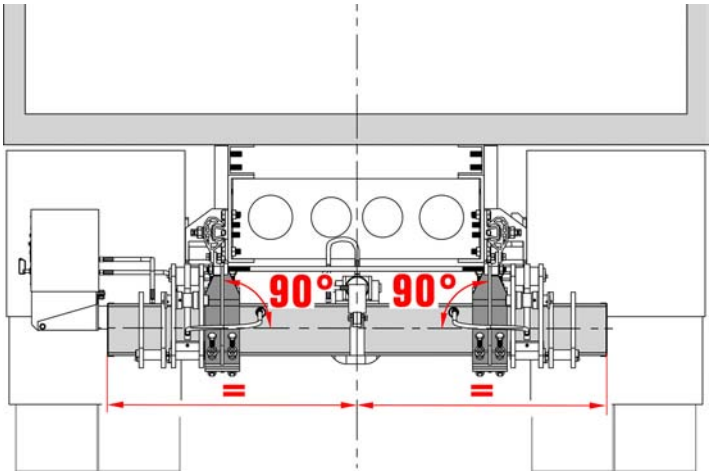
Place the tailgate with a fork lift under the truck. The mainframe of the tailgate must be under the mounting brackets. The tailgate must be centric to the truck.



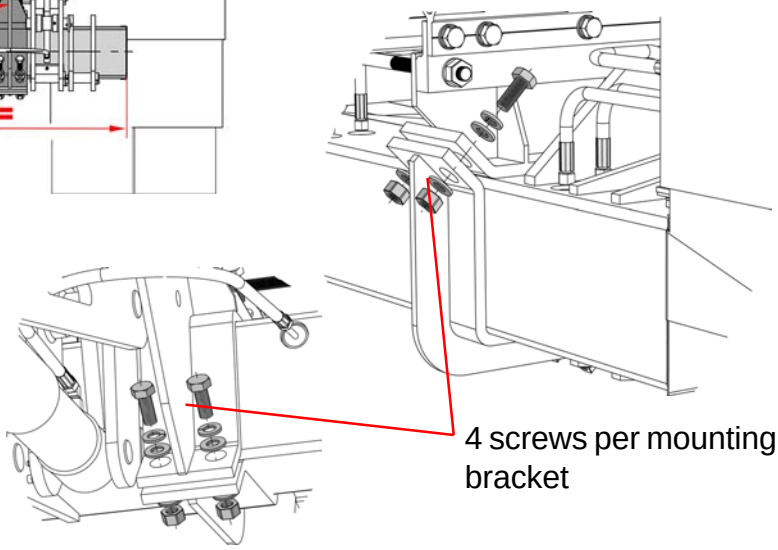


Raise the complete tailgate with a fork lift to the correct position and install the mounting brackets onto the main frame. Don't fasten the 4 screws per mounting bracket complete.

ATTENTION: THE ANGLE BETWEEN MOUNTING BRACKET AND MAIN FRAME MUST BE 90°. THE POSITION OF THE MAIN FRAME MUST BE CENTRIC TO THE TRUCK.



If the tailgate is in the correct position, fasten all screws at the mounting brackets. (4 per mounting bracket)



4 screws per mounting bracket

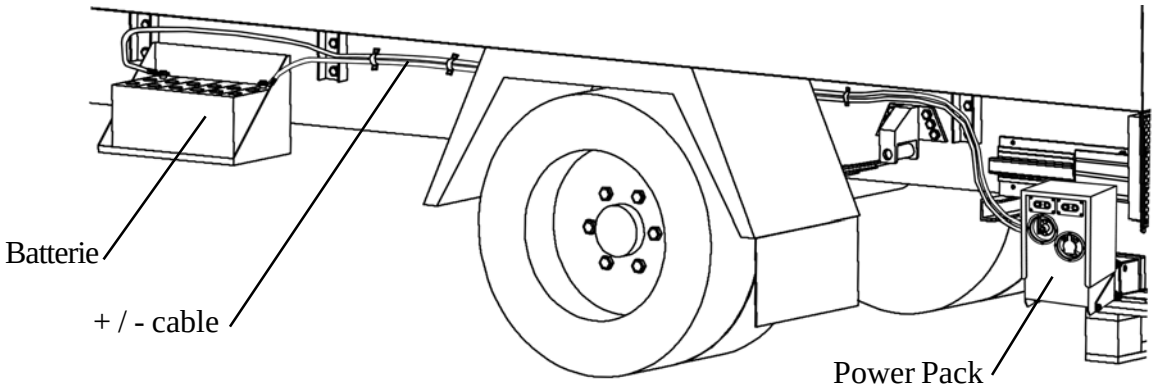
INSTALLATION INSTRUCTIONS

Energize the power pack

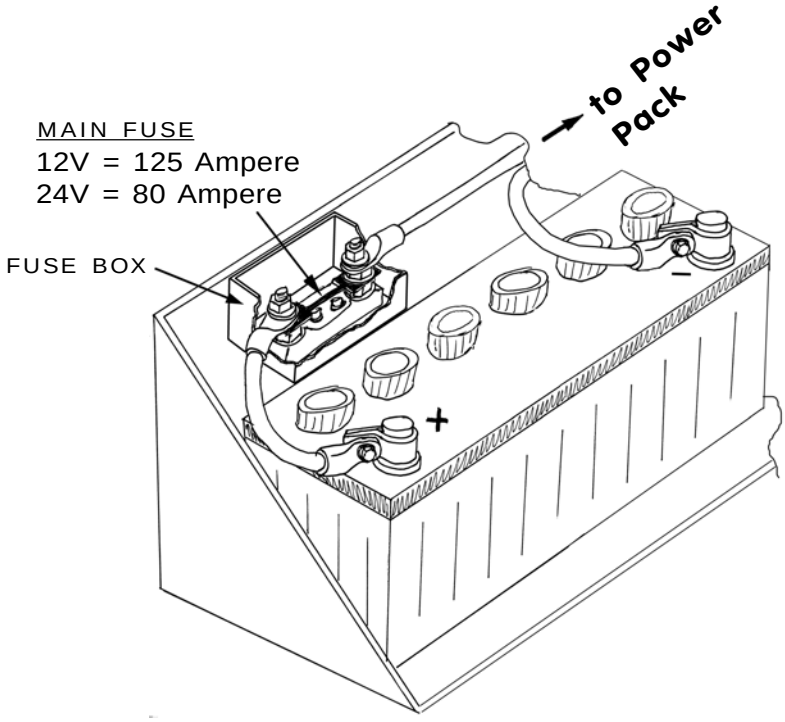
CAUTION: REMOVE TRANSPORT FILLER CAP AND INSERT DIPSTICK: (There is no air hole in filler cap and the pump or reservoir will be destroyed)

Be sure the vehicle and the liftgate are of the same voltage (12V or 24V).
Fuse is in the power pack. (12V = 25 Amp and 24V = 16 Amp).
Connect the **positive cable, directly from the battery, to the starter solenoid.**
Connect the **negative cable, directly from the battery, to the motor ground.**
Complete all other electrical work. (Connect all control switches)

CAUTION: REMOVE TRANSPORT FILLER CAP AND INSERT DIPSTICK:
(There is no air hole in transport filler cap and the pump or reservoir will be destroyed)



- Build in between Battery (+) and (+)-Cable the Main Fuse



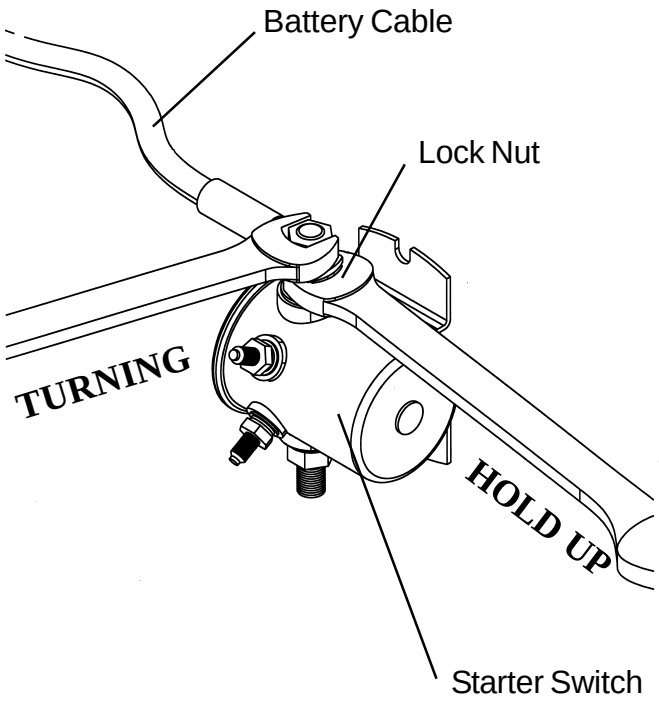
INSTALLATION INSTRUCTIONS

Correct wiring of the Power Pack

NOTE: All battery power leads must have a core area not less than 35mm² (at DC-Motor 2.0kW)and be double insulated.

Connect both battery cables (+ and -) directly from the battery to the power pack.

ATTENTION: By fixing the battery cable on the starter switch, you must hold up the lock nut.



* Energize the power pack and actuate each of the valves to be sure they are operating properly.

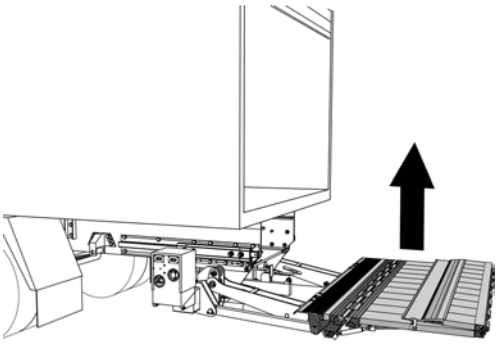
* Please check the operating temperature regularly. It should not increase by more than -20°C to +70°C.

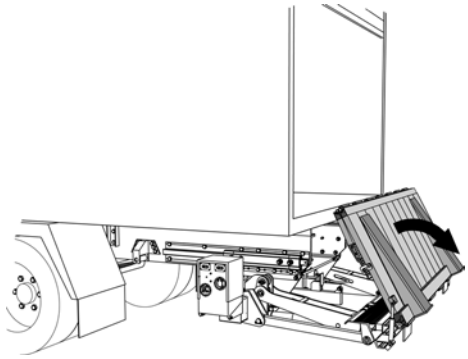
* Check a new power pack for leakage after a short period of time. Tighten any fittings that may be leaking.

INSTALLATION INSTRUCTIONS

Install the endstop cube

Manually slide the tail lift out to the end of the rail.
Unfold the platform manually (1x time - not complete)

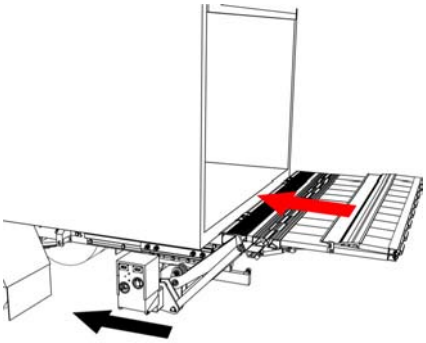


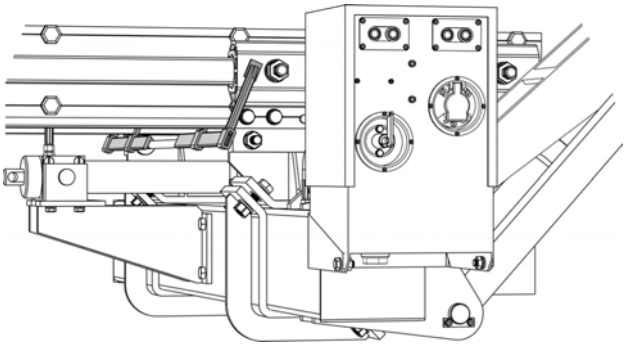


Now raise the platform to the truck floor level by pressing the "RAISE"-Button.

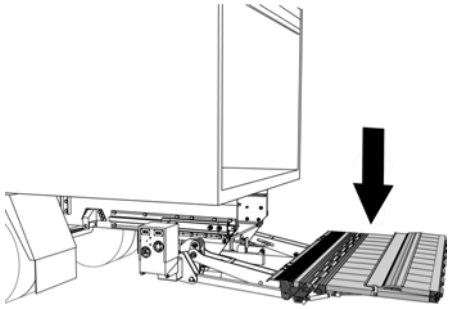
Move in the complete tailgate unit with the help of a fork lift, until the 2 lifting arms attach the truck.

Clamp the mounting bracket with a screw clamp onto the rail. Then lower the platform by pressing the "LOWER"-Button.

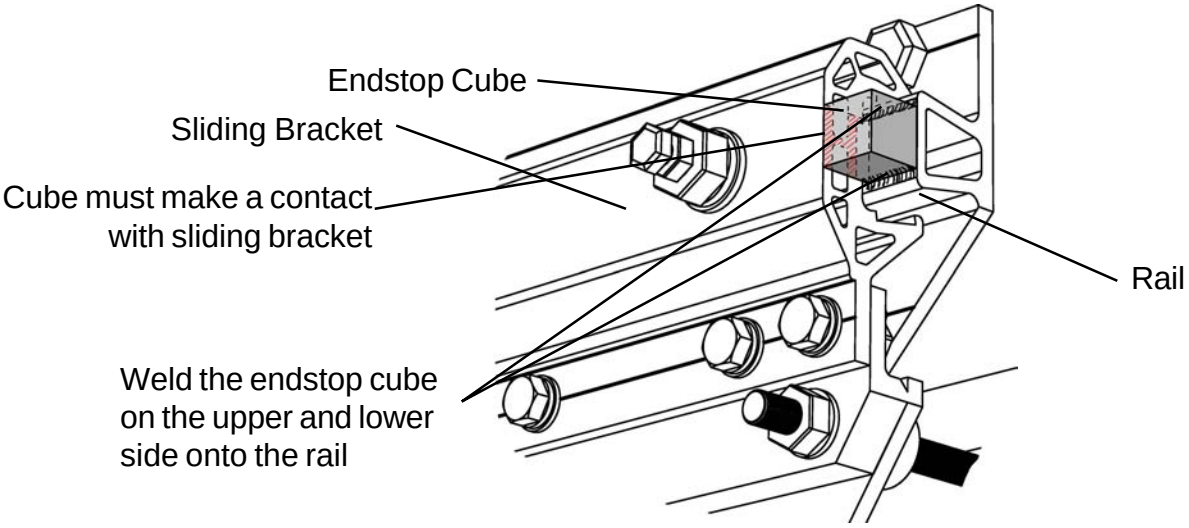




==>



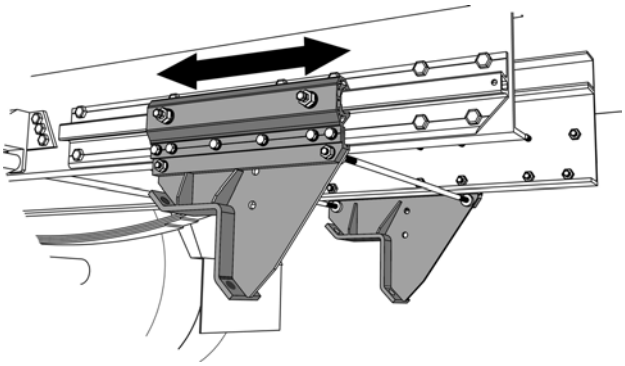
Weld the endstop cube onto the rail as shown in the picture below. (on both sides)

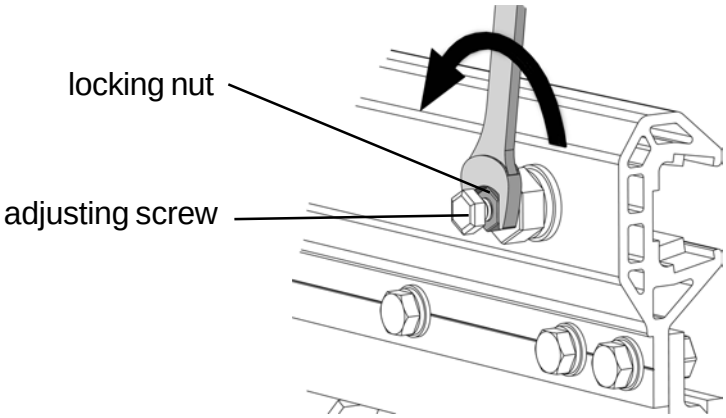


INSTALLATION INSTRUCTIONS

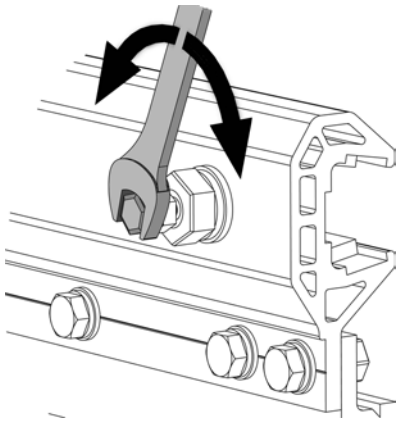
How to adjust the mounting brackets

- Loosen the locking nut
- Adjust the easy movement of the mounting brackets by turning the adjusting screw. **ATTENTION:** The mounting brackets must move easily, but they don't have any clearance.
- Hold the adjusting screw and fasten the locking nut.





Loosen the locking nut

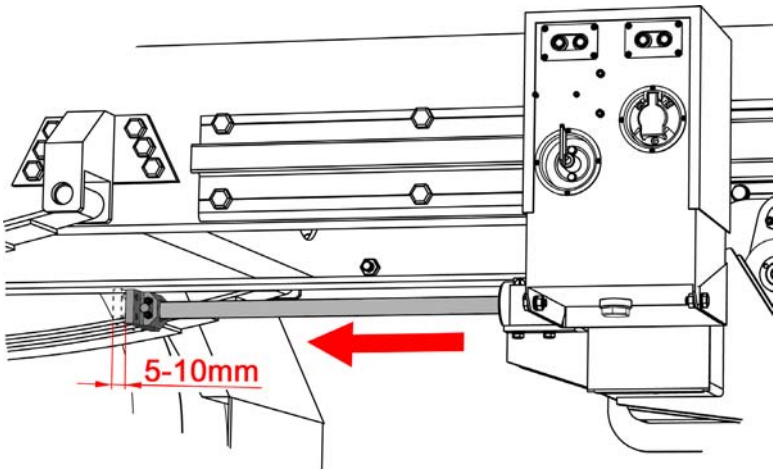


Adjust the sliding bracket

INSTALLATION INSTRUCTIONS

Install the cross beam for feed cylinder

Move out the feed cylinder completely by pressing the „OUT“-Button.

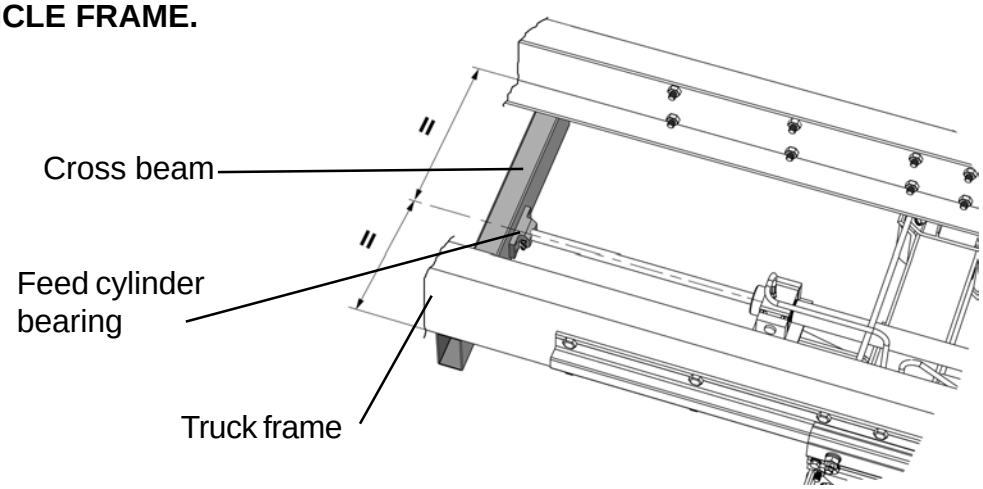


Then move in the feed cylinder for approximately 5-10mm.

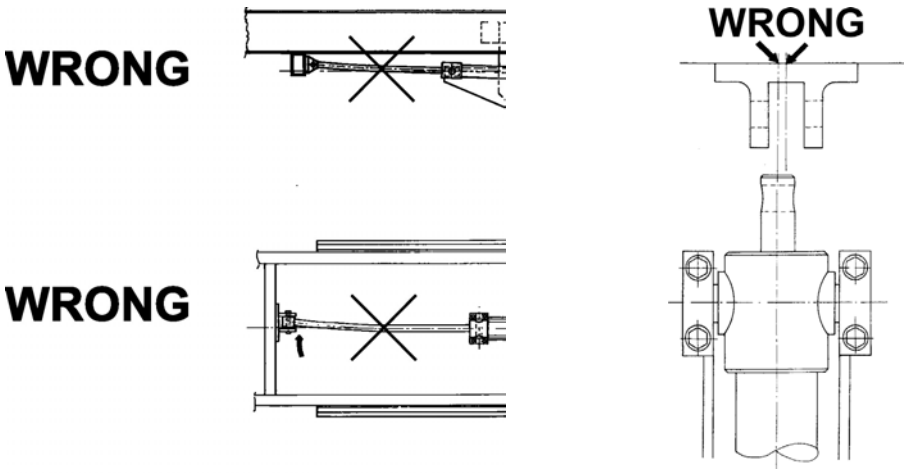
Install a cross beam on the truck frame and screw on the feed cylinder bearing.

ATTENTION: COVER THE PISTON ROD OF THE FEED CYLINDER BEFORE WELDING.

IT IS VERY IMPORTANT THAT THE FEED CYLINDER BE ABSOLUTELY PARALLEL WITH THE VEHICLE FRAME.

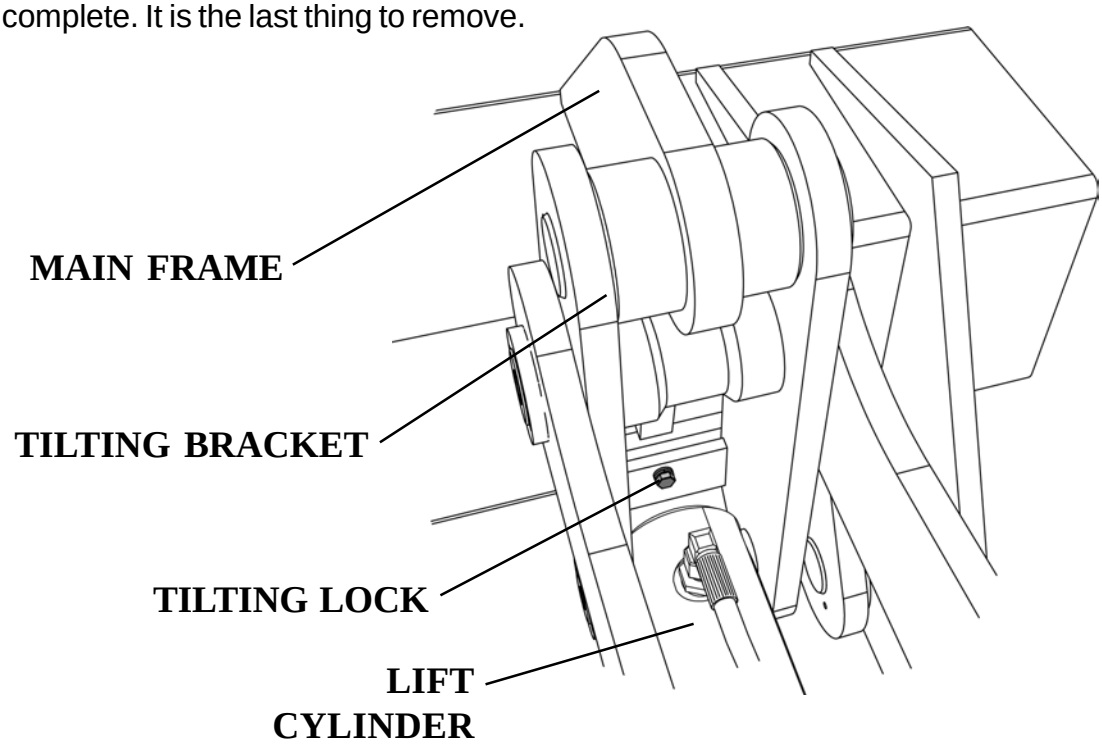


The pictures below show some problems that could happen if not installed properly.



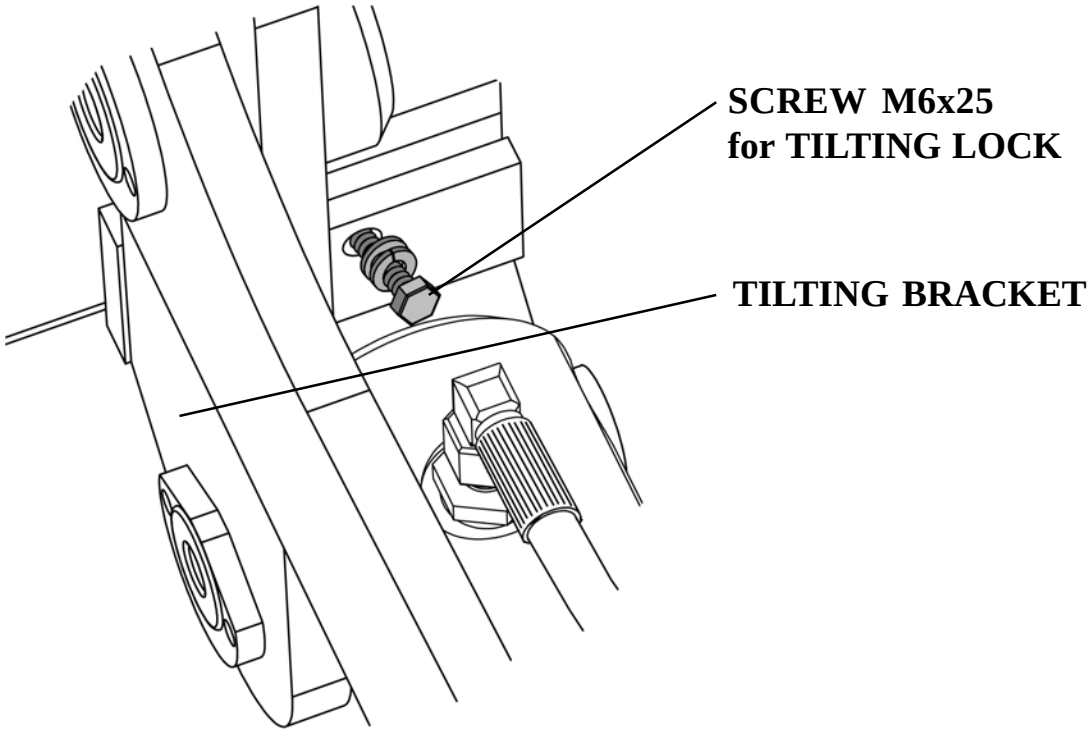
Remove Tilting Lock

The tilting lock prevents the automatic leveling from working until the installation is complete. It is the last thing to remove.



Remove the screw M6x25 on both sides.

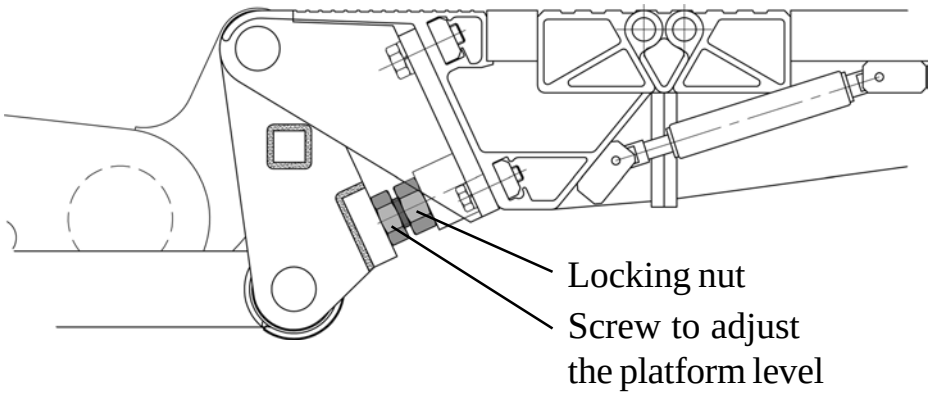
(Before removing the screw M6x25 the platform must be raised from ground)



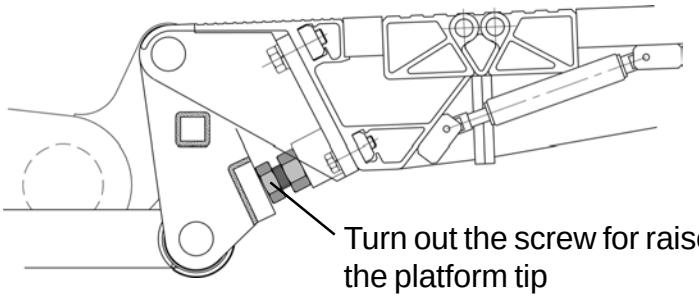
FINISHING THE INSTALLATION

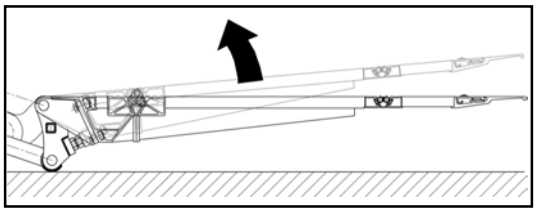
How to adjust the platform level

1) Unfold the platform completely.
2) Loosen the locking nut on both sides.

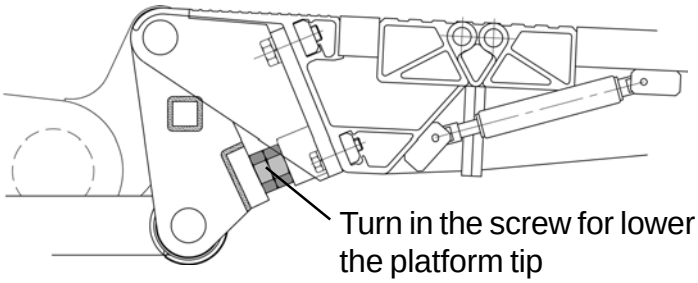


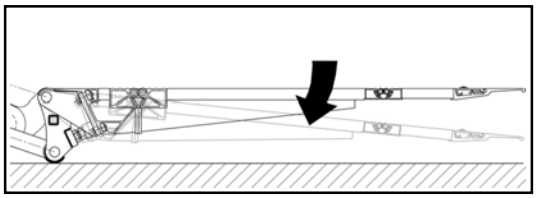
Adjust the platform:
- Turn **out** the screw for **raise** the platform tip.

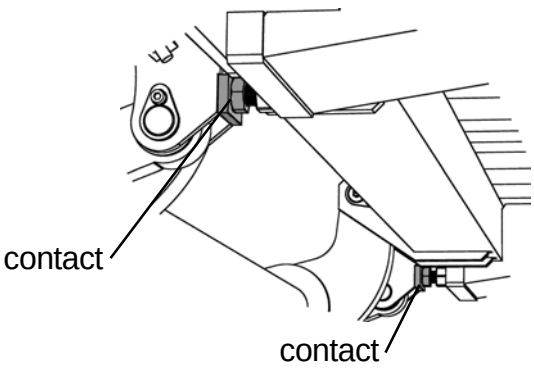


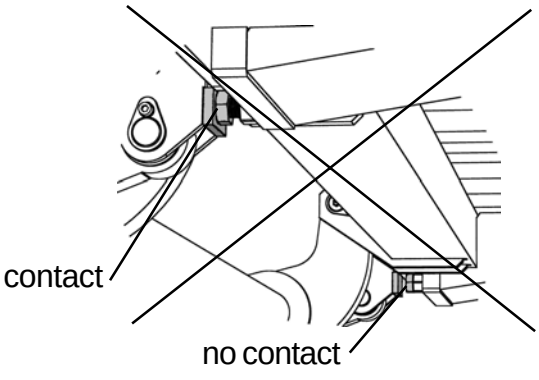


- Turn **in** the screw for **lower** the platform tip.







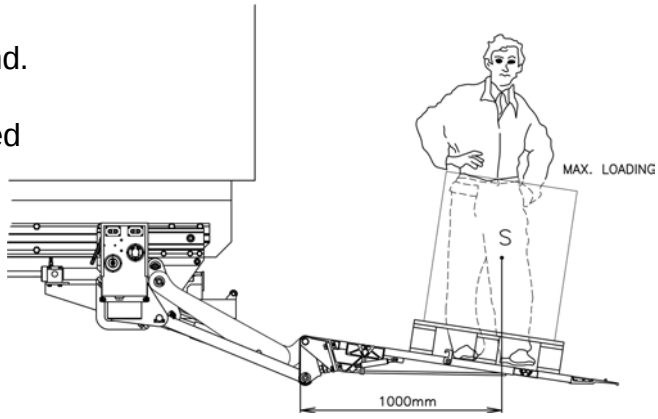


3) If the platform level is correct, fasten the locking nut on both sides.

FINISHING THE INSTALLATION

How to adjust the maximum Lifting Pressure

1) Turn on the Main Switch
2 Open the platform and lower to the ground.
3) Lower the platform tip to the ground.
4) Load the platform with the maximum rated load and one person. Be sure to place the load in the center of platform and at 1000mm from the vehicle. (Check the vehicle data plate)
5) Press the “Raise”-Button. If the platform does not raise, the relief valve is set too low.

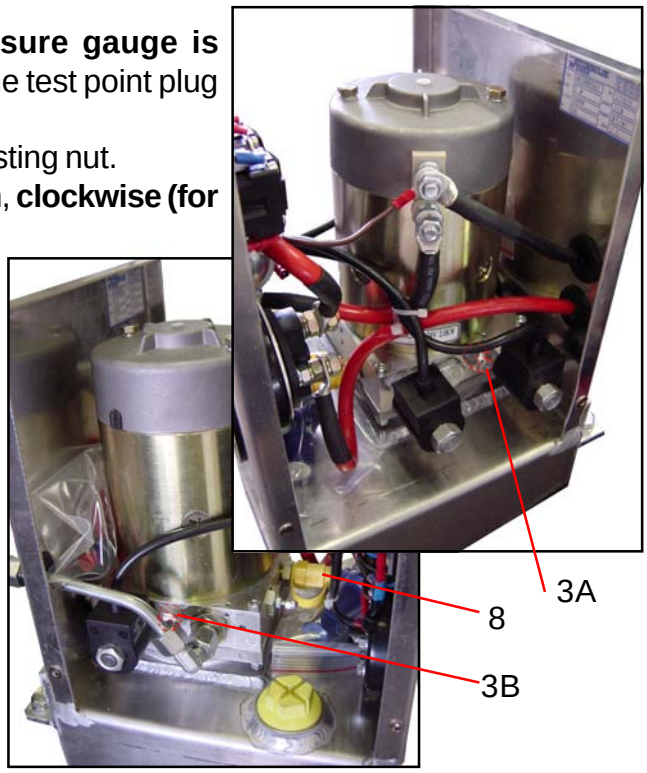


How to adjust the relief valve:

The relief valves are sealed at the factory. The seals **must not** be removed unless authorized by the factory. **Warranty is void if seal is broken.**

There are 2 different places to adjust the hydraulic pressure:
Relief Valve 3A is to adjust the **LIFTING** pressure. Factory setting is 220bar (3190PSI).
Relief Valve 3B is to adjust the **SLIDE IN** and **SLIDE OUT** pressure. Factory setting is 100bar (1450PSI).
All 2 relief valves are adjustable from 50-250bar (700-3600PSI).

* Adjustment of the relief valve:
a) To adjust pressure, **a calibrated pressure gauge is required** and it should be connected at the test point plug (8). **NOTE: 1bar equals 14.5PSI**
b) Remove the seal and cover from the adjusting nut.
c) Turn the adjusting screw with a hex wrench, **clockwise (for higher pressure)** or **counter-clockwise (for lower pressure)**. Be sure to keep an eye on the pressure gauge. The maximum pressure should be 220bar (3190PSI).
d) When pressure is correct, lock the cap screw and **check the pressure again** to be sure it has not changed. Seal the cover.



Caution: Never bottom the relief valve. The power pack and/or hydraulic system could be damaged.

6) Turn the main switch off.

FINISHING THE INSTALLATION

How to adjust the Flow Control Valve

Adjustable flow control valve:
The Lifting speed is not adjustable.
The In and Out speed is not adjustable.
The lowering speed is adjusted by position 7.
How to adjust the flow control valve:

- Be sure the adjustable flow control valves are not closed. To regulate the lowering speed, first carefully loose the M4 lock nut at the adjustable throttle.
- Turn the cap nut to the right to lower the speed and turn the cap nut to the left to increase the speed. Turn the screw one quarter turn at a time until the desired speed is reached.
- When the desired speed is reached, hold the cap nut and tighten the M4 lock nut (max. 1.5Nm).

• The **lowering speed** should be as follows:
Maximum lowering speed should be 6" (150mm) per second. (Maximum lowering speed is 40" in 7 seconds). (1 m in 7 seconds)

Install the warning flags

Mount the warning flags with 3 rivets on each flag.

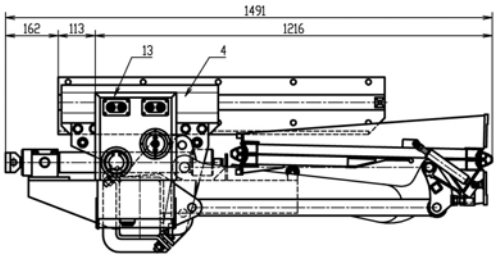
Finishing the Installation

- Lubricate all grease fittings.
- Check all Locking brackets.
- Check the oil level.
- Check all hydraulic hoses and cylinders for tightness.

MODEL: UTK-1000ST/AL
with double-acting feed cylinder

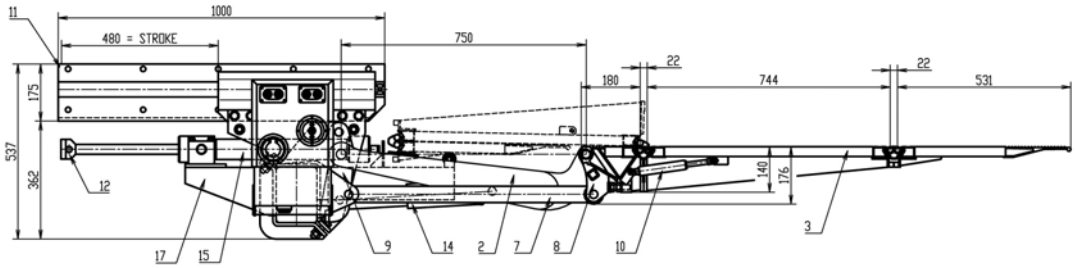
BASIC DIMENSIONS

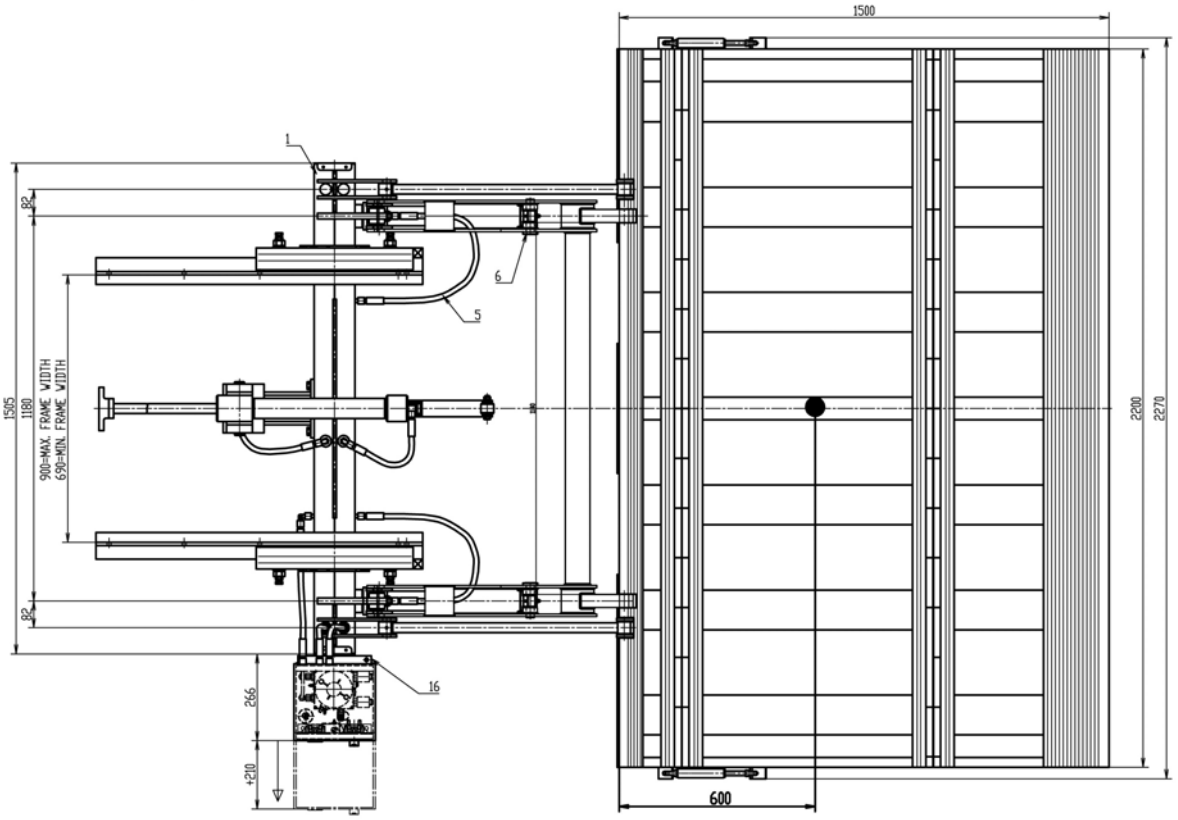
for Liftarm: L=750mm and Platform: L=1500mm



PART No.	PCS.	DESCRIPTION	DRAWING No.	WEIGHT
1	1	CROSS BEAM	UTK-1002ST-1-MT/1180	47kg
2	1	LIFT ARM	ATK-752ST-2L/1180	36.5kg
3	1	PLATFORM ALUMINUM 2200x1500	UTK-1001AL-3	120.0kg
4	2	SLIDING BRACKET	UTK-1001ST-4L(R)	37.0kg
5	1 SET	HYDRAULIC HOSE; OIL; + and - CABEL; ADDITIONAL PARTS	UTK-1000ST/AL-5	12.0kg
6	1 SET	BOLT ASSEMBLY	ATK-751ST/AL-6	6.5kg
7	2	LEVER ARM	ATK-752ST-7L	10.0kg
8	2	JOINT PLATE	ATK-1002ST-8R	3.5kg
9	2	TILTING BRACKET	ATK-1001ST-9	6.0kg
10	2	GAS SPRING	GS-28-100	1.5kg
11	2	RAIL (ALUMINIUM)	UTK-1000AL-11L(R)	14.5kg
12	1	FEED CYLINDER BEARING	ULB-VZL-2000	0.5kg
13	1	POWER PACK	MHW-UTK-2000ST-SS	12.5kg
14	2	LIFT CYLINDER Φ42 with mech. hose burst valve	HZ-750AL-42M **	6.0kg
15	1	FEED CYLINDER (Double Acting)	DW 50/30/480	9.0kg
16	1	SLIDING BRACKET FOR POWER PACK	UTK-1002ST-14	6.0kg
17	1	FEED CYLINDER BEARING	UTK-1000ST-VZL-1	7.5kg

* READY FOR WORK
* TOTAL WEIGHT 336kg
** OPTION: with electrical hose burst valve (HZ-750AL-42E)





MODEL: UTK-1000ST/AL
with double-acting feed cylinder

TAILGATE SPECIFICATIONS

for Liftarm: L=750mm and Platform: L=1500mm

STANDARD SPECIFICATIONS

CAPACITY kg	**1000kg at 500mm Gravity Center**
NOMINAL PLATFORM SIZE mm	2200 Width x 1500 Length x 140 Depth
INSTALLED WEIGHT kg	336
FITTING REQUIREMENTS mm	1150 Max. Height Unloaded 1040 Min. Height Loaded 1370 Min. Underbody Clearance Required*
ADDS TO VEHICLE mm	---

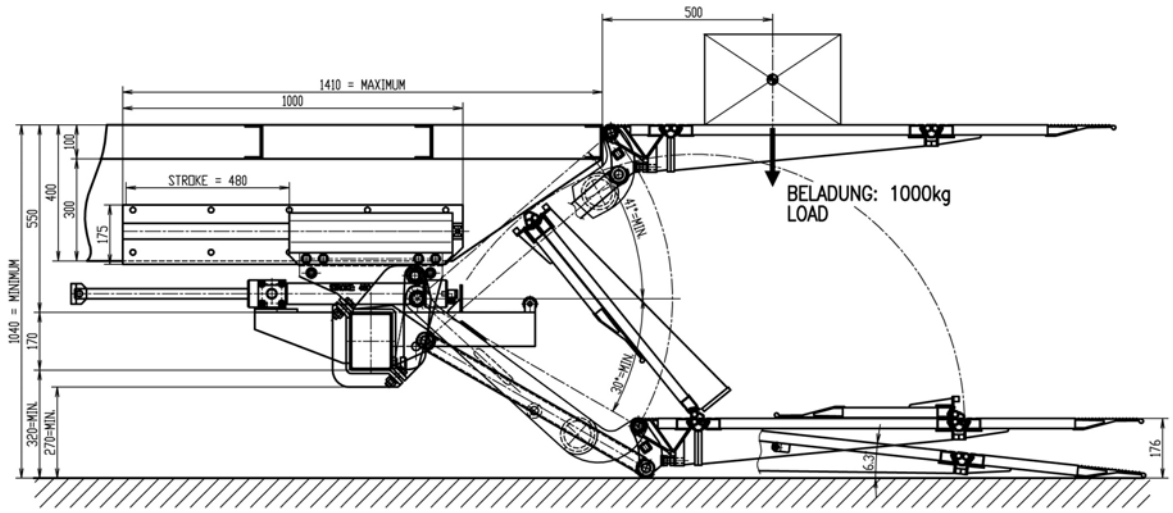
OTHER SPECIFICATIONS

WEIGHT	Unit & Cylinder kg		324	
	Installation Kit kg		12	
PLATFORM	Aluminum Extrusion Profile		30mm thick	
	Execution		folding 2x	
	Trolley Stops		OPTION	
	Platform Angle		6.3°	
LIFT ARMS	Construction		2x8mm Steel Plate	
			40mm Steel Plate on the Platformside	
	Arm Depth mm		96	
	Arm Length mm		750	
	Re-Bushable		Yes	
	Overall width mm		1276	
MAIN FRAME	Construction		125mm x 170mm x 5	
	Bracket Thickness mm		12	
	Guiding Rails		Special Extrusion Aluminium Profil	
PINS	Material		ø25; ø30mm Hard Chrome Plated	
	Grease Nipples		Yes	
	Pinlock and Srews		Stainless steel	
BUSHES			Steel Teflon Coated	
HYDRAULIC	Power Pack		M.H.W.	
	Weather Proof Alum Enclosure and Sound Proof		Included	
	Motor Size		2.0kW	
	All Aluminum Cylinder:	Quantity	Two (2) Lift	One (1) Feed
		Size	ø42mm; max. Stroke:222mm	ø50/ø30mm; max.Stroke:480mm
		Quality	Cylinder are all Aluminium Piston are all Ceramic plated and Teflon Sealed for Long Life	Piston Is Hard Chrome Plated Rod Is Steel
	Hose Burst Valve		one mechanical Valve on each Lift Cylinder	
	Leak Proof Check Valve		Included	
	Hoses		ø6mm (1/4") Thermo Plastic 3pcs. L=750mm; 4pcs. L=350mm	
	Flow Control		Pressure Compensating	
	Oil Type		Hydraulic Oil 22cSt	
OPERATION	Lift Operation		Power up/Gravity down	
	Tilting Operation		automatical mechanical Tilting on the ground floor	
	Out/In Operation		Power Out/ Power In	
	Closing Operation		Manual Closing	
	Locking Device		Lock between Truck Frame and folded Platform	
CONROLS	Battery Isolation Switch		Integral to Power Pack	
	Fixed Control		4 Button on Power Pack	
	Removable Remote Push Button		2 Button Hand Held c/w 3m Lead	
	Safety Plug		Yes	
	Base		Yes (Flush Mounted)	

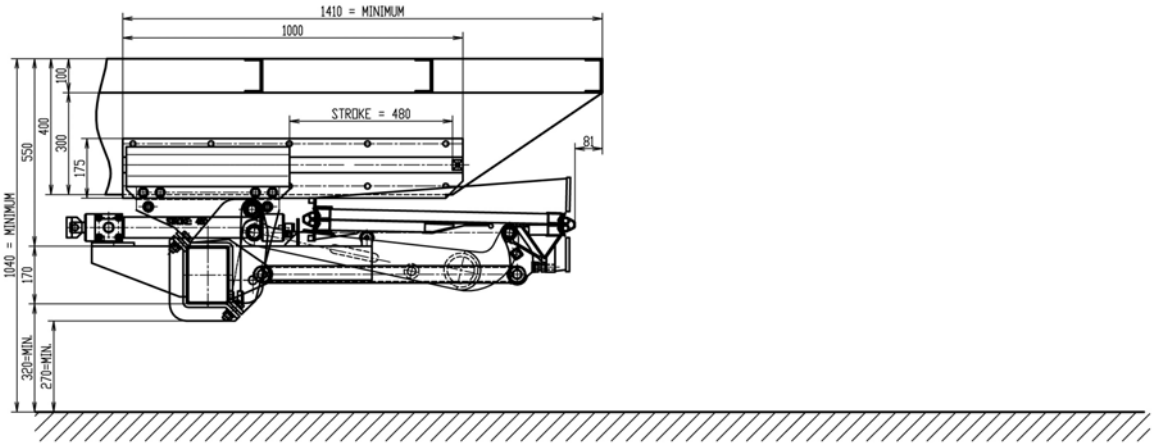
* Subject to Vehicle Type & Floor Height

MODEL: UTK-1000ST/AL	**TAILGATE KINEMATICS** for Liftarm: L=750mm and Platform: L=1500mm	AHT

MINIMUM MEASUREMENTS - WORKING POSITION

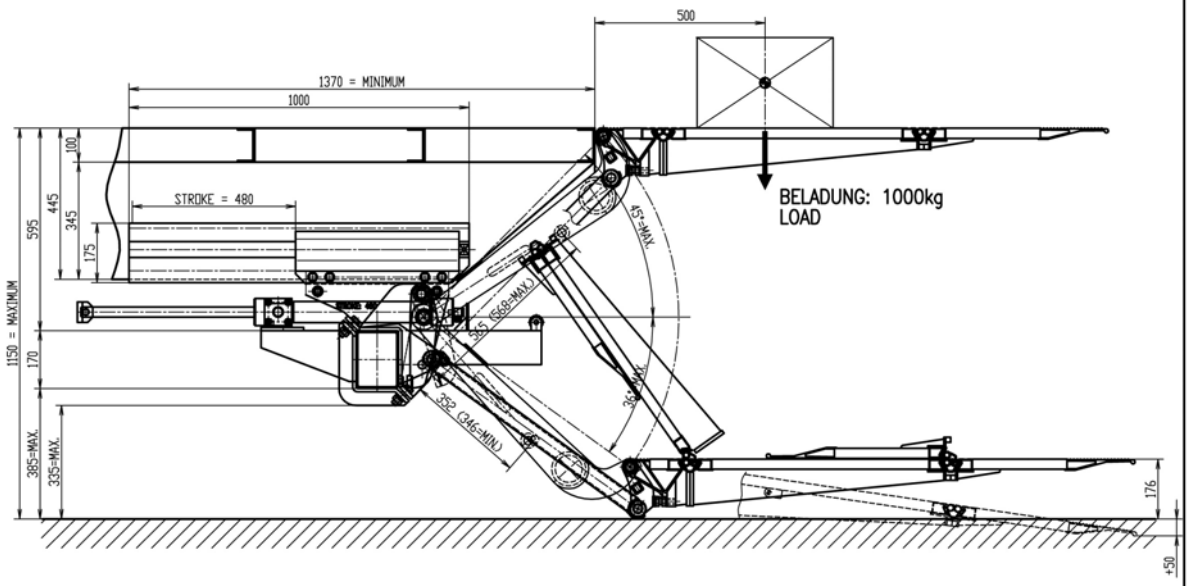


MINIMUM MEASUREMENTS - TRANSPORT POSITION

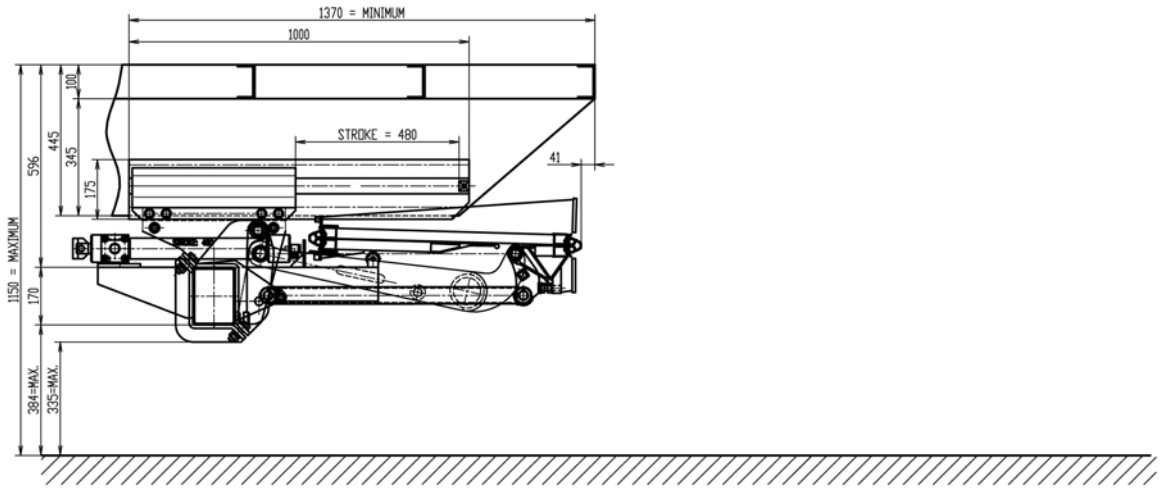


MODEL: UTK-1000ST/AL	**TAILGATE KINEMATICS** for Liftarm: L=750mm and Platform: L=1500mm	AHT

MAXIMUM MEASUREMENTS – WORKING POSITION



MAXIMUM MEASUREMENTS – TRANSPORT POSITION



MODEL: UTK-2000ST/AL-SS
with double-acting feed cylinder

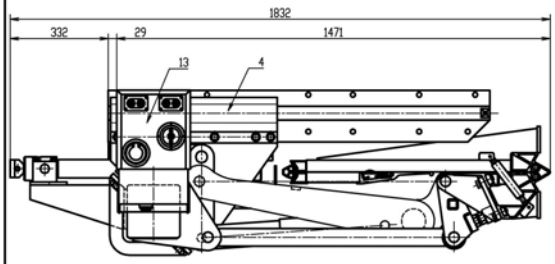
BASIC DIMENSIONS

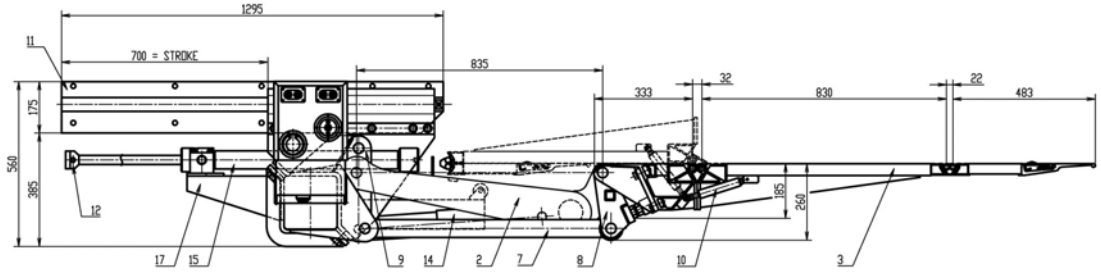
for Liftarm: L=835mm and Platform: L=1700mm

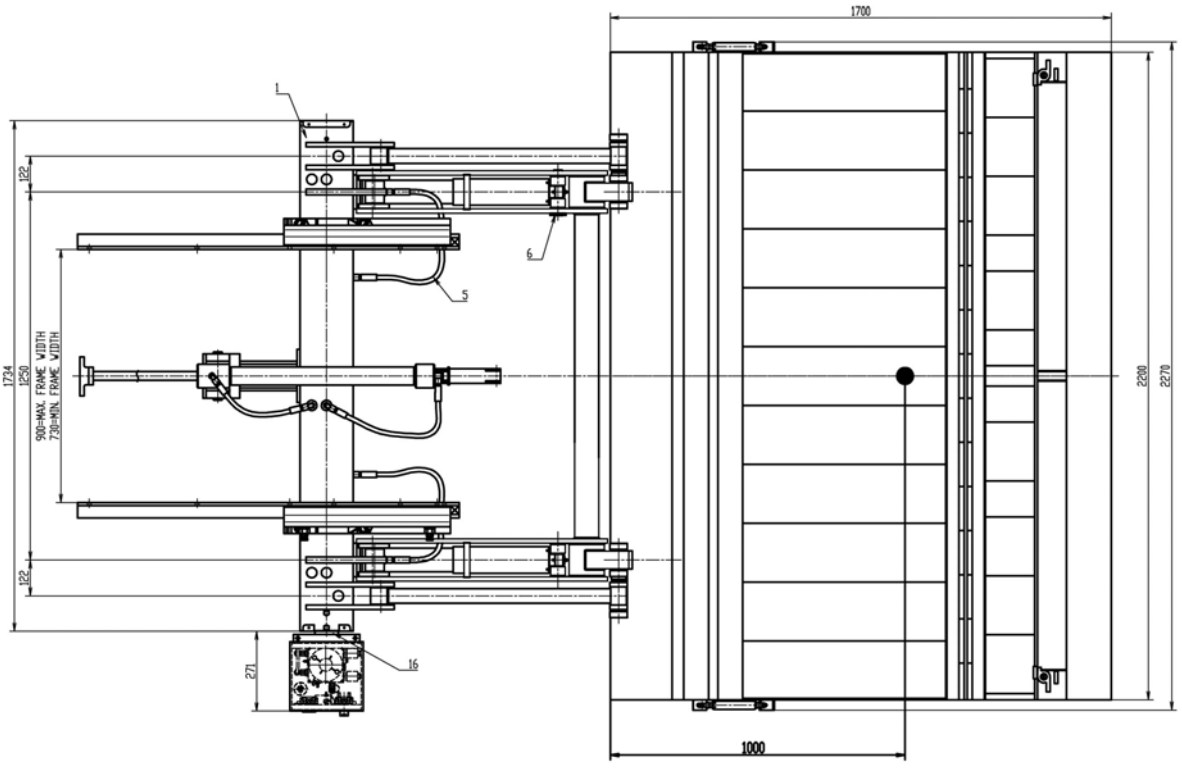
PART No.	PCS.	DESCRIPTION	DRAWING No.	WEIGHT
1	1	CROSS BEAM	UTK-2000ST-SS-1VZ-MT/1250	103kg
2	1	LIFT ARM	ATK-2000ST-SS-2/835/1250	77.0kg
3	1	PLATFORM ALUMINUM 2200x1700	UTK-2000ST-SS-3AR	193.0kg
4	2	SLIDING BRACKET	UTK-2000ST-SS-4L(R)	62.0kg
5	1 SET	HYDRAULIC HOSE; OIL; + and - CABEL; ADDITIONAL PARTS	UTK-2000ST-SS-5	15.0kg
6	1 SET	BOLT ASSEMBLY	ATK-2000ST-SS-6	14.5kg
7	2	LEVER ARM	ATK-2000ST-SS-7/835	16.0kg
8	2	JOINT PLATE	ATK-2000ST-SS-8AL(R)	13.2kg
9	2	TILTING BRACKET	ATK-2000ST-SS-9L(R)	16.7kg
10	2	GAS SPRING	GS-28-100	1.5kg
11	2	RAIL (ALUMINIUM)	UTK-2001AL-11L(R)	18.0kg
12	1	FEED CYLINDER BEARING	ULB-VZL-2000	0.5kg
13	1	POWER PACK	MHW-UTK-2000ST-SS	12.5kg
14	2	LIFT CYLINDER Φ60 with mech. hose burst valve	HZ-2000AL-60M**	13.4kg
15	1	FEED CYLINDER (Double Acting)	DW 50/30/700	11.5kg
16	1	SLIDING BRACKET FOR POWER PACK	ATK-2000ST-14	2.4kg
17	1	FEED CYLINDER BEARING	UTK-2000ST-SS-VZL-1	8.0kg

* READY FOR WORK
** OPTION: with electrical hose burst valve (HZ-2000AL-60E)

* **TOTAL WEIGHT** **578kg**







MODEL: UTK-2000ST/AL-SS
with double-acting feed cylinder

TAILGATE SPECIFICATIONS

for Liftarm: L=835mm and Platform: L=1700mm

STANDARD SPECIFICATIONS

CAPACITY kg	**2000kg at 1000mm Gravity Center**
NOMINAL PLATFORM SIZE mm	2200 Width x 1700 Length x 185 Depth
INSTALLED WEIGHT kg	578
FITTING REQUIREMENTS mm	1435 Max. Height Unloaded 1100 Min. Height Loaded 1490 Min. Underbody Clearance Required*
ADDS TO VEHICLE mm	---

OTHER SPECIFICATIONS

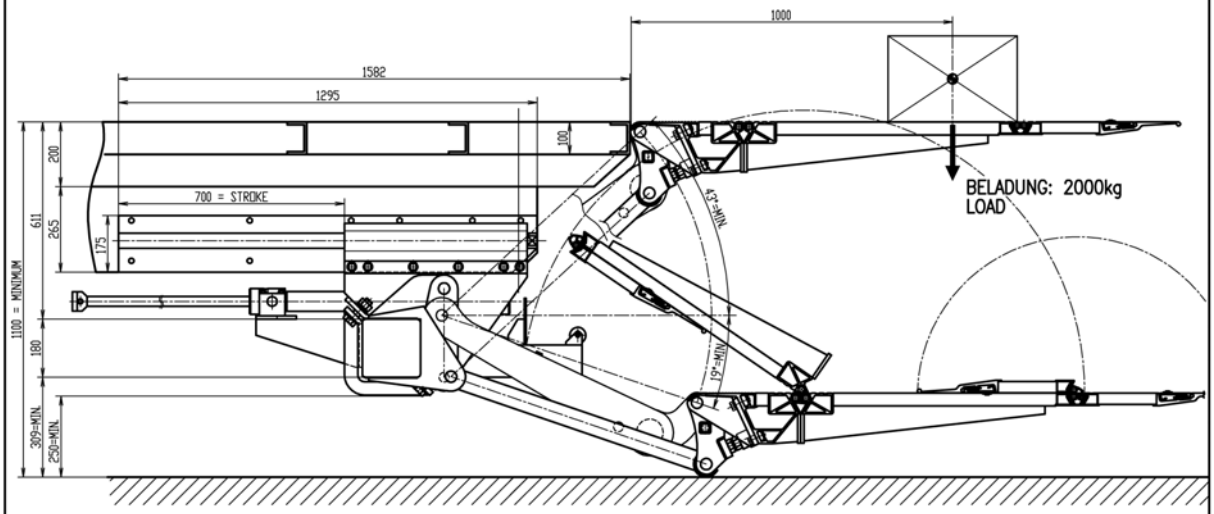
WEIGHT	Unit & Cylinder kg		563	
	Installation Kit kg		15	
PLATFORM	Aluminum Extrusion Profile		40mm; 35mm thick	
	Execution		folding 2x	
	Trolley Stops		Yes	
	Platform Angle		16% or 9°	
LIFT ARMS	Construction		2x15mm Steel Plate	
			60mm Steel Plate on the Platformside	
	Arm Depth mm		144	
	Arm Length mm		835	
	Re-Bushable		Yes	
	Overall width mm		1324	
MAIN FRAME	Construction		180mm x 180mm x 8	
	Bracket Thickness mm		10	
	Guiding Rails		Special Extrusion Aluminium Profil	
PINS	Material		ø30; ø35mm Hard Chrome Plated	
	Grease Nipples		Yes	
	Pinlock and Srews		Stainless steel	
BUSHES			Steel Teflon Coated	
HYDRAULIC	Power Pack		M.H.W.	
	Weather Proof Alum Enclosure and Sound Proof		Included	
	Motor Size		2.0kW	
	All Aluminum Cylinder:	Quantity	Two (2) Lift	One (1) Feed
		Size	ø60mm; max. Stroke:310mm	ø50/ø30mm; max.Stroke:700mm
		Quality	Cylinder are all Aluminium Piston are all Ceramic plated and Teflon Sealed for Long Life	Piston Is Hard Chrome Plated Rod Is Steel
	Hose Burst Valve		one mechanical Valve on each Lift Cylinder	
	Leak Proof Check Valve		Included	
	Hoses		ø6mm (1/4") Thermo Plastic 2pcs. L=750mm; 5pcs. L=350mm	
	Flow Control		Pressure Compensating	
	Oil Type		Hydraulic Oil 22cSt	
OPERATION	Lift Operation		Power up/Gravity down	
	Tilting Operation		automatical mechanical Tilting on the ground floor	
	Out/In Operation		Power Out/ Power In	
	Closing Operation		manual Closing	
	Locking Device		Lock between Truck Frame and folded Platform	
CONROLS	Battery Isolation Switch		Integral to Power Pack	
	Fixed Control		4 Button on Power Pack	
	Removable Remote Push Button		2 Button Hand Held c/w 3m Lead	
	Safety Plug		Yes	
	Base		Yes (Flush Mounted)	

* Subject to Vehicle Type & Floor Height

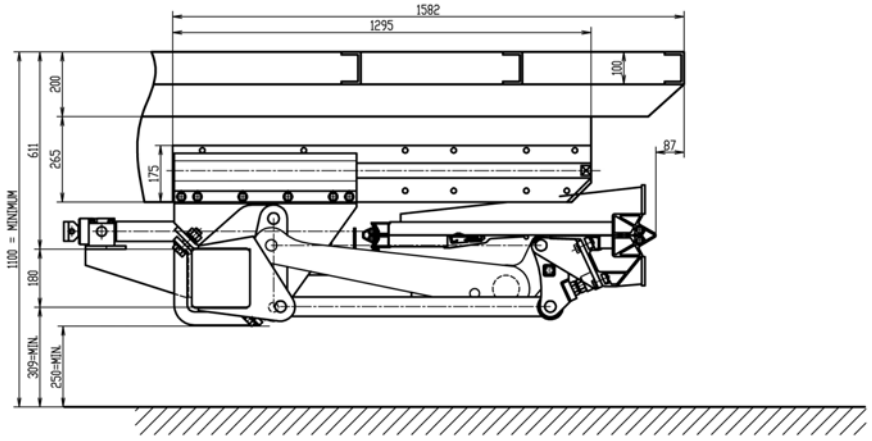
26.07.2007
PAUL
PFAD: ATS DATENBLÄTTER LBW

MODEL: UTK-2000ST/AL-SS	**TAILGATE KINEMATICS** for Liftarm: L=835mm and Platform: L=1700mm	AHT

MINIMUM MEASUREMENTS - WORKING POSITION



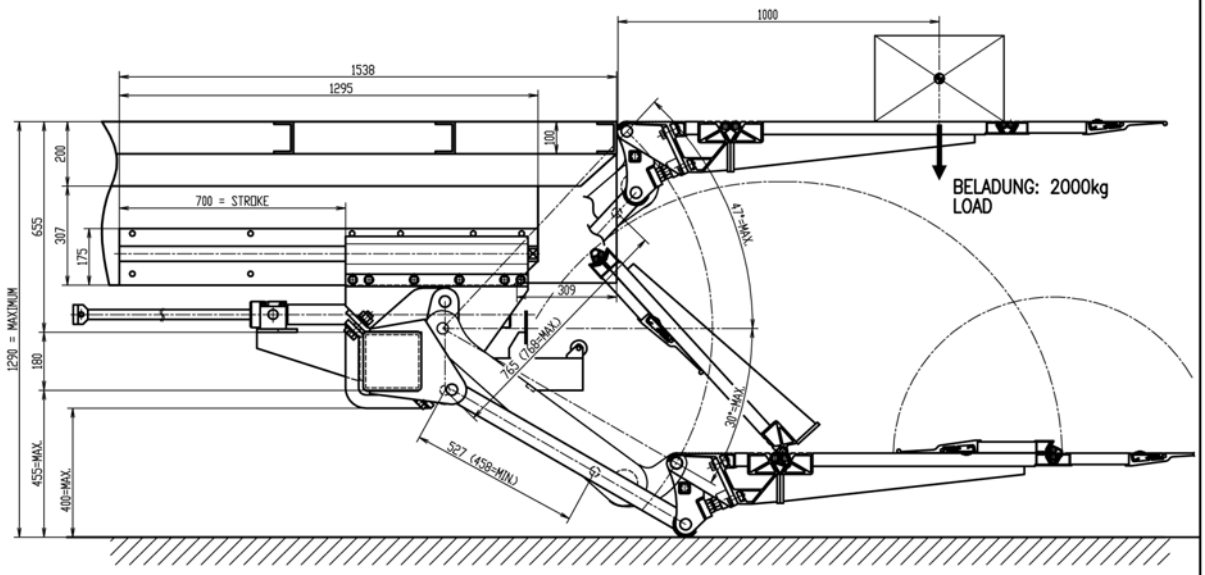
MINIMUM MEASUREMENTS - TRANSPORT POSITION



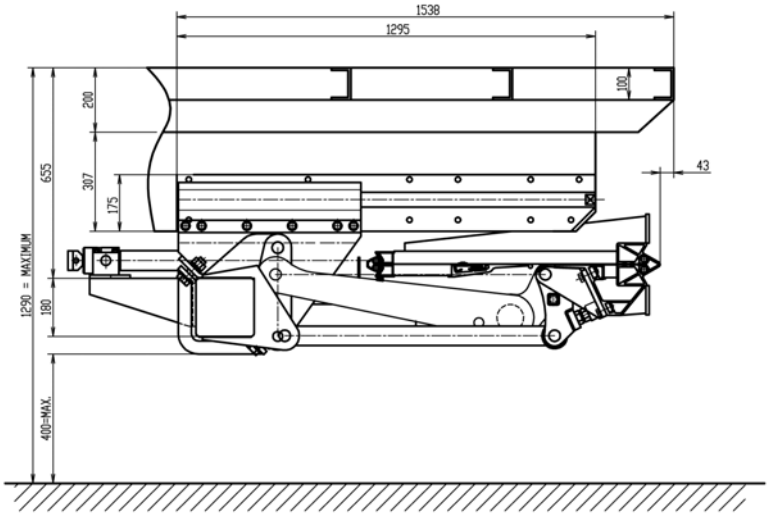
30.07.2007
PAUL
PFAD: ATS
DATENBLÄTTER LBW

MODEL: UTK-2000ST/AL-SS	**TAILGATE KINEMATICS** for Liftarm: L=835mm and Platform: L=1700mm	AHT

MAXIMUM MEASUREMENTS – WORKING POSITION



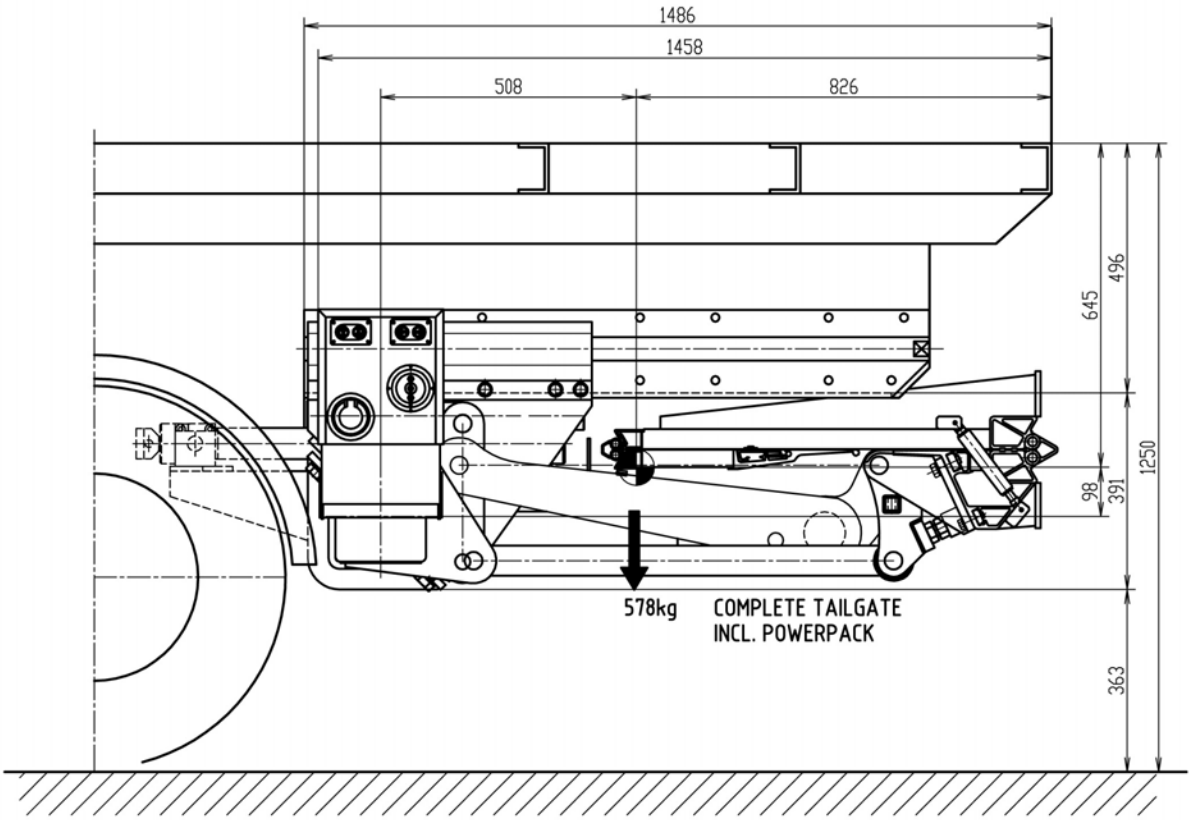
MAXIMUM MEASUREMENTS – TRANSPORT POSITION



30.07.2007
PAUL
PFAD: └ ATS
└ DATENBLÄTTER LBW

MODEL: UTK-2000ST/AL-SS with double-acting feed cylinder	**TAILGATE KINEMATICS** for Liftarm: L=835mm and Platform: L=1700mm	AHT

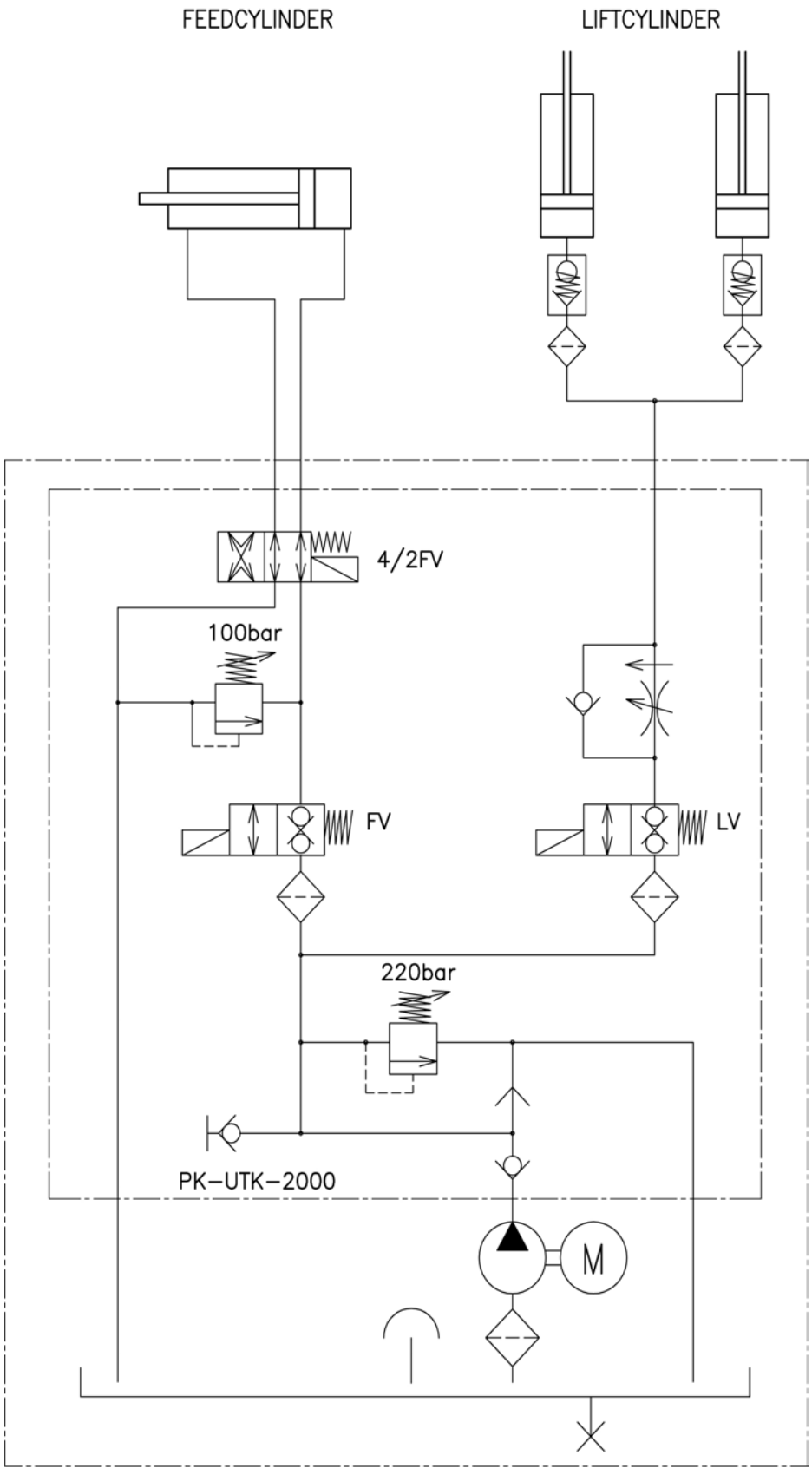
CENTRE OF MASS FOR UTK-2000ST/AL-SS IN TRAVELING POSITION



16.02.2007
PAUL
PFAD: └ ATS
└ DATENBLÄTTER LBW

HYDRAULIC-SCHEMATIC

for pump head PK-UTK-2000
for double-acting feed cylinder



ELECTRIC-SCHEMATIC

with 2-Button-Remote Control