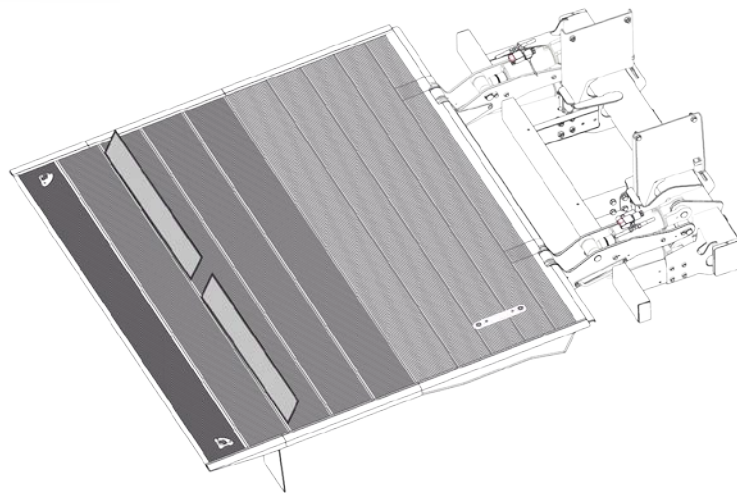
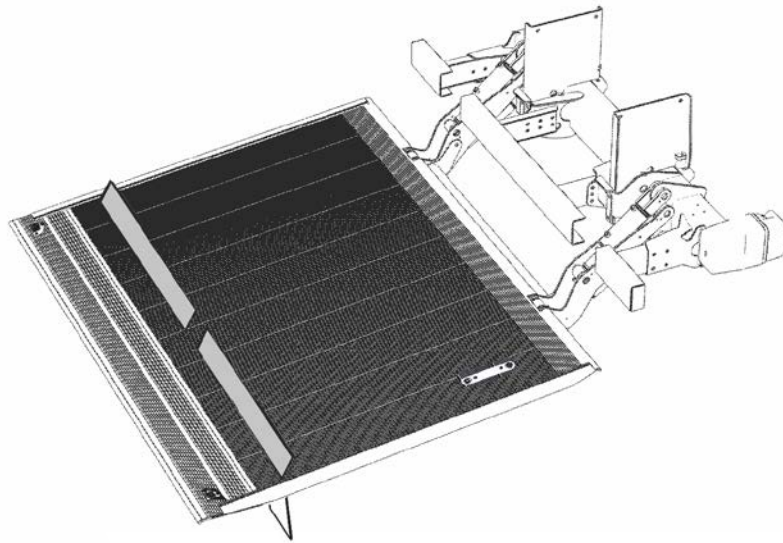


MAXON[®]

Installation manual for GPC 33 X-4 and GPC 44 X-4



MAXON[®]
LIFT CORP.

11921 Slauson Avenue
Santa Fe Springs, CA 90670-2221
P 800.227.4116 / 562.464.0099
F 888.771.7713

Date 05.2021
Part no. S 20 912 583

Contact information

MAXON LIFT CORP.

Corporate Office

11921 Slauson Avenue
Santa Fe Springs, CA 90670-2221
P 800.227.4116 / 562.464.0099
F 888.771.7713

Customer Service / Parts

USA/Canada
Mexico
P 800.227.4116
F 888.771.7713
P 01.664.231.6039

Contents

Contact information.....	3
Safety	6
Intended use.....	6
Requirements for personnel	6
Requirements for installation and commissioning.....	7
Fundamental hazards.....	7
Presentation of warning notices.....	8
Check for damages after arrival.....	8
Trailer hitch.....	8
Installation Directions GPC 33 X-4 and GPC 44 X-4	9
Installation-Safety Precautions	9
Unpacking the lifting gear, installation adapters, and accessories kit	9
Preparation of the Vehicle	11
Cutouts in rear frame of vehicle.....	12
Lifting gear installation dimensions.....	12
Dimension Table.....	13
Assembly drawing for GPC 33 X-4 of mounting brackets and bumper bar.....	14
Assembly drawing for GPC 44 X-4 of mounting brackets and bumper bar.....	15
Installation of GPC 33 X-4 and GPC 44 X-4 lifting gear.....	16
Instruction, GPC-X spacer kit installation.....	17
Placement of GPC 33 X-4 and GPC 44 X-4 mount fixture.....	19
Alternative assembly with the assembling jig.....	19
Weld requirements.....	22
Connecting the cables	24
Assembly of electrical equipment in series 11	25
Foot control.....	25
Central power unit.....	25
Cabin switch	26
On-Off-Switch diagram	27
Power fuse.....	28
Assembly of control panel.....	29
Adjusting the platform inclination Series 11 (Tilt sensor programming)	30
Installation and adjustment of the platform	31
Installation of the platform.....	31
Aligning the platform with the vehicle floor.....	33
Adjusting the adjustment nut	33
Lift-arm stop at vehicle body.....	33
Aligning the platform with the vehicle body in the closed position	34
Recommendations and instructions regarding the liftgate	34
Hydraulic oil recommendations.....	35
Painting the lifting gear	35
Entry in inspection record book	35
First operation of the liftgate	35
Operating sticker (option)	35
Type label	35
Testing the liftgate	36
Function test.....	36

Check of operating speeds	36
Vertical speed.....	36
Tilting speed (10° to -10°).....	36
Load test.....	37
Static test.....	37
Dynamic test.....	37
Testing against lifting an overload	37
Testing the safety devices	37
Alternative installation of GPC 33 X-4 compact power pack.....	38
Warning flags.....	38
Torque table for all supplied and installed bolts on Maxon Lift CORP. liftgates.....	39
Solenoid valve	39
Starter solenoid	39
Caution sticker “secure the load”	39
Installing supports (vehicle-dependent)	40
Affixing the danger notice sticker	41
Decals for GPC 33 X-4	42
Decals for GPC 44 X-4	43
LED diagnostics in series 11	45
Checking the inclination sensor inside the platform.....	45
Checking the pressure switch S4:	45
Service Switch in series 11	46
Option body lighting in series 11	47
Hydraulic circuit diagram	48
Electrical circuit diagram.....	48
On-Off-switch diagramOptional food control diagram.....	50
Body Seal Kits	51

Safety

Intended use

These installation directions contain the instructions necessary to install the liftgate and adjust it to those vehicles for which the tailgate was designed. To determine whether the device may be installed on a certain vehicle, please contact us. We will provide the required information. If the liftgate needs to be modified or if it is necessary to differ from these installation directions, a written approval from Maxon Lift CORP. needs to be obtained first. Unapproved modifications and amendments from these installation directions may lead to failure and to operating interruptions as well as to hazards for the operator.

The warranty for the device will be voided by “unapproved modifications” and “deviations from the installation directions.”

The installations guidelines of the chassis manufacturer need to be complied with!

The liftgate is used for loading and unloading the vehicle and for transferring loads. Any other use is prohibited.

Do not exceed the maximum load carrying capacity (see rating plate or diagram in the user manual). Be sure to correctly position the load on the platform.

Do not operate the liftgate with the vehicle in motion.

Do not use the liftgate to lift any person other than the operator.

This manual is intended for the manufacturer who installs the liftgate on the vehicle. It contains information on transport, installation, and commissioning.

Read this manual before working on or operating the liftgate.

Do not deviate from the instructions contained in this manual. By doing so, you risk injury, damage to property and voiding of the warranty.

Make sure that this manual always remains with the liftgate or vehicle.

IMPORTANT

For information on operation, cleaning, maintenance, decommissioning, disassembly and disposal, refer to the accompanying user manual.

Requirements for personnel

The tasks described in this manual may be performed only by qualified and trained personnel.

Use personal safety gear when performing these tasks: protective goggles, work gloves and protective footwear.

Perform these tasks at an appropriate working height with the body in an appropriate position. Avoid unusual positions.

Comply with valid legal and operational guidelines, such as occupational safety regulations and environmental regulations.

Requirements for installation and commissioning

Follow the vehicle manufacturer's current installation guidelines for the relevant vehicle.

Pay particular attention to safety instructions and warnings.

Changes to the liftgate's axle assemblies and to the necessary installation adapters are prohibited and invalidate approval by the German Federal Motor Transport Authority.

Do not modify or remove safety equipment (pressure limiting valves, non-return valves, electrical fuses and software control routines). By doing so, you risk serious injury.

Do not modify, cover, or remove product labels (warning labels, instructions, rating plates).

Fundamental hazards

DANGER

Electrical system with on-board voltage:

The liftgate receives electrical power from the vehicle's on-board power supply (max. 48 V DC). The electrical system is designed using state-of-the-art technology.

- Do not damage or modify electrical components or wiring.

Fire and explosion hazard. Excessive current may damage the battery or cable harness. To prevent this, visually inspect the electrical system (maintenance schedule).

DANGER

High-pressure hydraulic system:

The liftgate's hydraulic system operates at high pressure max. 3200 PSI (max. 220 bar). The hydraulic system is designed using state-of-the-art technology.

- Do not damage or modify hydraulic components or hoses.

Danger from pressurized liquids and gases.

Hydraulic components/lines can burst and cause injury.

- Inspect hydraulic components/lines at regular intervals (maintenance schedule).
- Install only state-of-the-art hydraulic components/lines.

DANGER

Moving parts with crushing points:

All parts that move in close proximity to one another can potentially crush fingers.

- Watch out for the unexpected movement of moving parts.

DANGER

Moving parts with points where objects can be pulled in and/or trapped:

Parts of the body, long hair, and clothing are at risk of being caught and pulled in by moving parts. This can result in fatal injuries.

- Always secure long hair
- Do not wear loose-fitting clothing

Presentation of warning notices

The following types of notices are used in this manual to identify hazards and complications:

DANGER

Failure to heed this notice can result in death or serious injury.

WARNING

Failure to heed this notice can result in death or serious injury.

CAUTION

Failure to heed this notice can result in minor or moderate injury.

NOTICE

Failure to heed this notice can result in damage to property or the environment.

And:

IMPORTANT

Important information or useful tip for correct use.

Check for damages after arrival

For damages on the liftgate which occurred during transportation, the shipping/forwarding company will be responsible. The lift needs to be checked for damages upon arrival. If any damages occurred during transportation, they need to be recorded on the waybill, so that claims can be raised. Insurance claims can be settled only by Maxon Lift CORP. and the shipping/forwarding company or its insurance.

Trailer hitch

If the vehicle has a trailer hitch, the clearance of the shaft axle to the liftgate and the overall length need to be guaranteed by the installer.

Installation Directions GPC 33 X-4 and GPC 44 X-4 Installation-Safety Precautions

- Before installing, the battery of the vehicle needs to be disconnected.
- The vehicle needs to be secured against all unintentional shifting.
- The plugs for electronic systems as for example ABS needs to be pulled before welding. Fuel lines, air hoses of the brake system, and cables in the installation area need to be protected against damages.
- Any special safety regulations (if applicable) need to be complied with.
- Safety gear, like protective goggles, work gloves and work boots, need to be made available before installing and are to be used if necessary.
- Safety devices on cranes, forklifts, and other lifting gear necessary for installing are to be checked to see if they are in proper working condition before they are used.

CAUTION

Unsuitable transport equipment

When transporting and lifting heavy parts, use transport equipment (e.g. cranes, pallet trucks, or other lifting gear) with a sufficient load carrying capacity.

- Verify the correct and reliable functioning of the transport equipment.

Unpacking the lifting gear, installation adapters, and accessories kit

CAUTION

Unsecured, heavy parts

When transport locks are removed, parts may fall or tip over and the platform may tip over. Risk of injury.

- Secure loose parts. Remove transport locks carefully.
- After disposing of packing materials, store all parts in a secured manner.

NOTICE

Oil leakage

Incorrect positioning of the lifting gear can result in oil leakage. Risk of environmental damage.

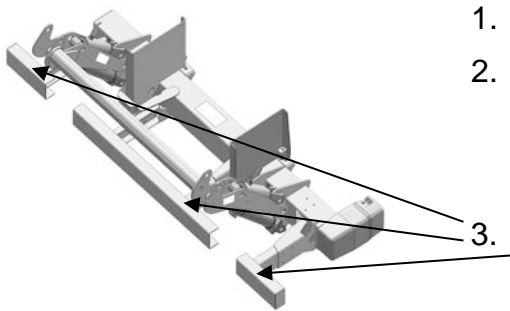
- Always transport the lifting gear in an upright position using suitable lifting points.

IMPORTANT

Dispose of all packing materials in accordance with environmental regulations.

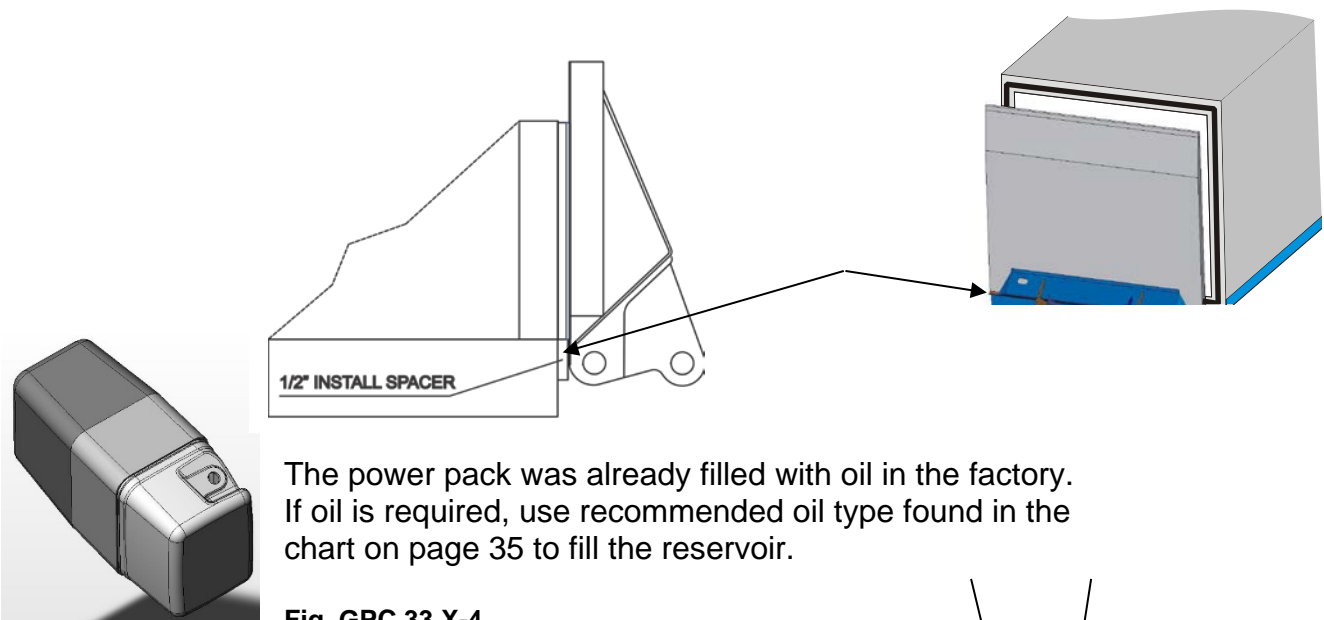
IMPORTANT

Please follow these important steps before starting installation.



1. Read and fully understand complete installation manual.
2. Check and verify that your vehicle dimensions are correct for the model of liftgate that you are installing. Vehicle mounting data is found on page 12 of the installation manual.
3. The bumper bar must be mounted before liftgate is installed on the truck body, assembly drawing is found on page 14 and 15.

Install the 1/2" spacer on the body. This spacer bar is always used with exception of liftgate behind swing doors. See page 17 for further instructions.

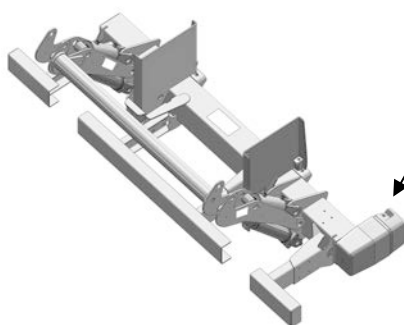


The power pack was already filled with oil in the factory. If oil is required, use recommended oil type found in the chart on page 35 to fill the reservoir.

Fig. GPC 33 X-4

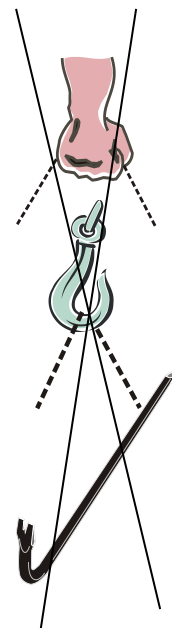
CAUTION

Caution with transport. Failure can result in injury.



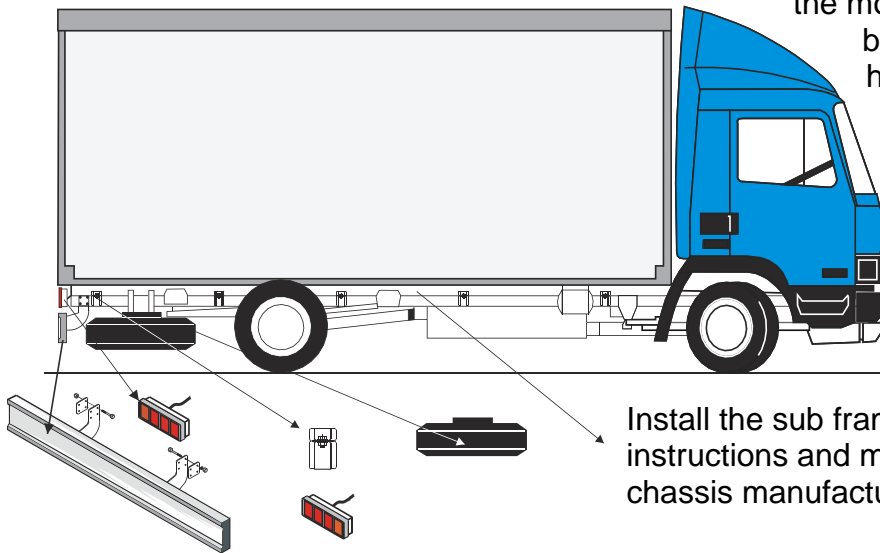
- do not lift at the power pack
- no pressure or shocks
- do not use pry bars

Fig. GPC 33 X-4



Preparation of the Vehicle

Dismantle the bumper bar and the tail lights. If there are any U-shaped mounting brackets with threads on both sides, brackets, rivets, spare wheels, or couplings in the installation area of the mounting brackets, they need to be removed. If necessary, remove hinges and locks at the rear end plate of the body floor.



Install the sub frame according to instructions and manuals of the chassis manufacturer.

IMPORTANT

Be careful not to damage the vehicle. We recommend using appropriate coverings.

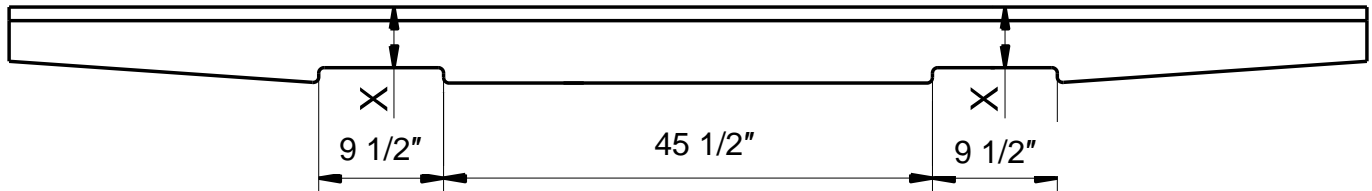
CAUTION

Secure the vehicle in place to prevent unintentional movement.

Cutouts in rear frame of vehicle

Suggestion for installation of GPC 33 X-4 and GPC 44 X-4, rear view.

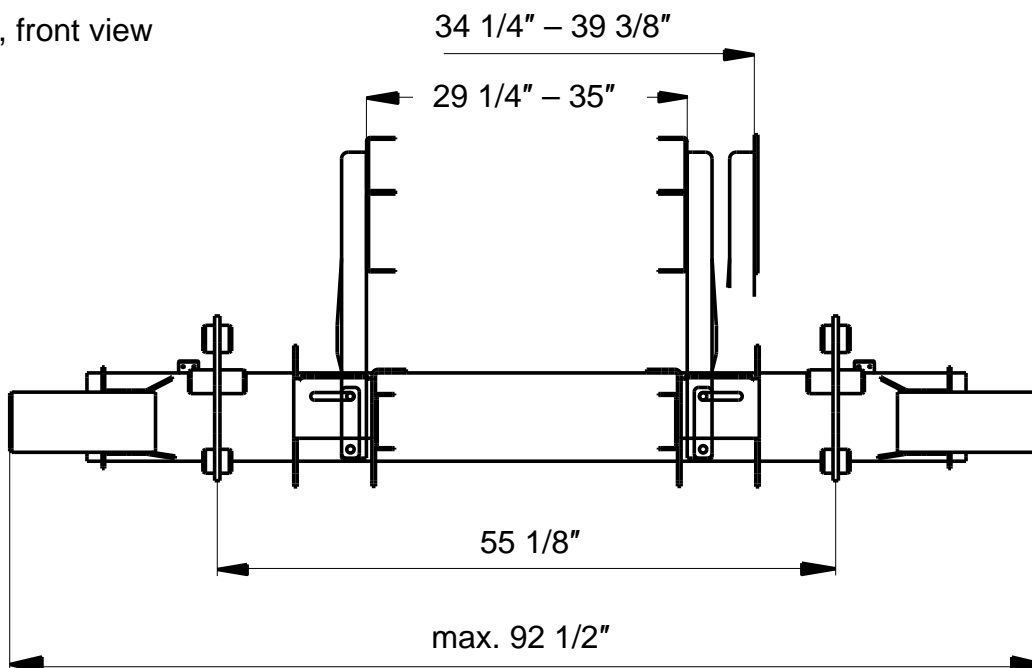
If the end crossmember in the area of the lift-arm stops is higher than specified in the table, cutouts must be provided in accordance with our recommendations.



GPC 33 X-4	Lift arm 29 1/2", 32 1/2"	X max. 4 3/4"
GPC 44 X-4	Lift arm 35 7/16"	X max. 4 3/4"

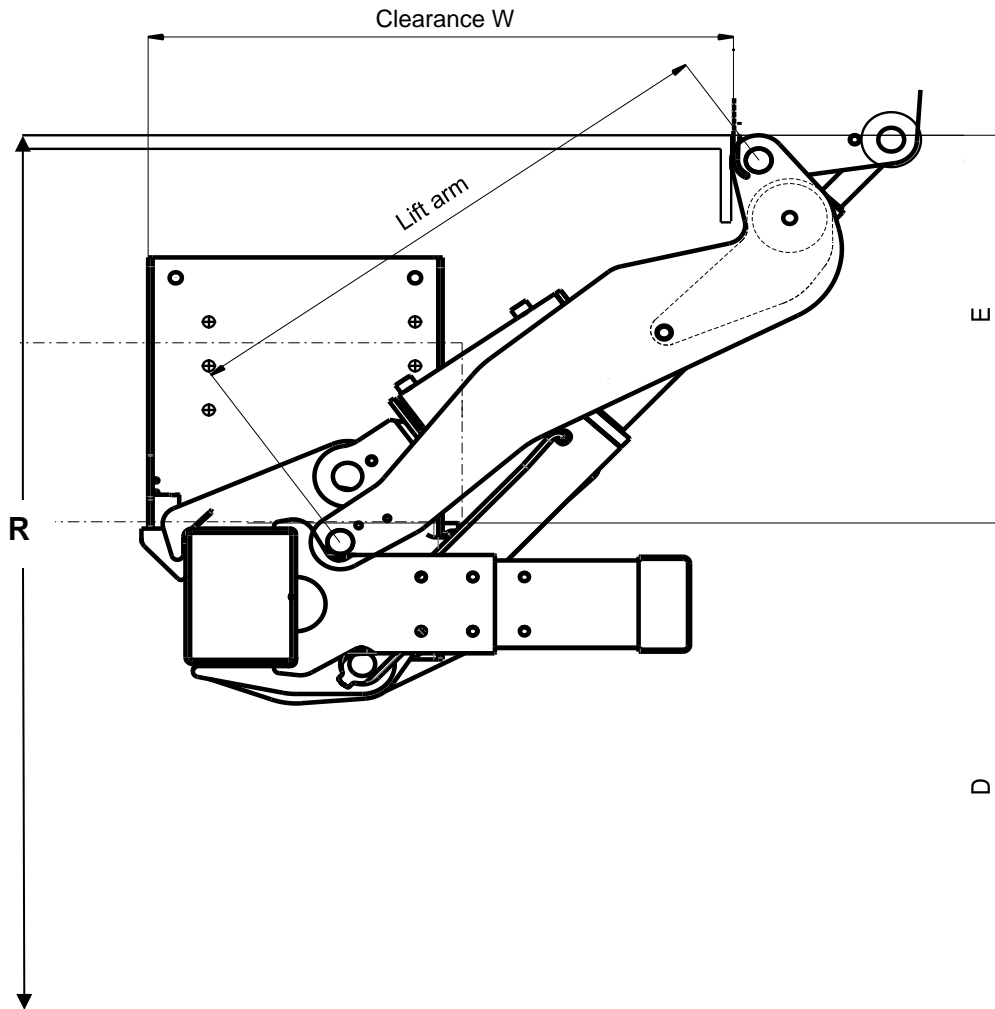
Lifting gear installation dimensions

Lifting gear, front view



Liftgate type	Platform width max. / min.	Liftarm width
GPC 33 X-4	102" / 80"	55 1/8"
GPC 44 X-4	102" / 80"	55 1/8"

Lifting gear, side view



Dimension Table

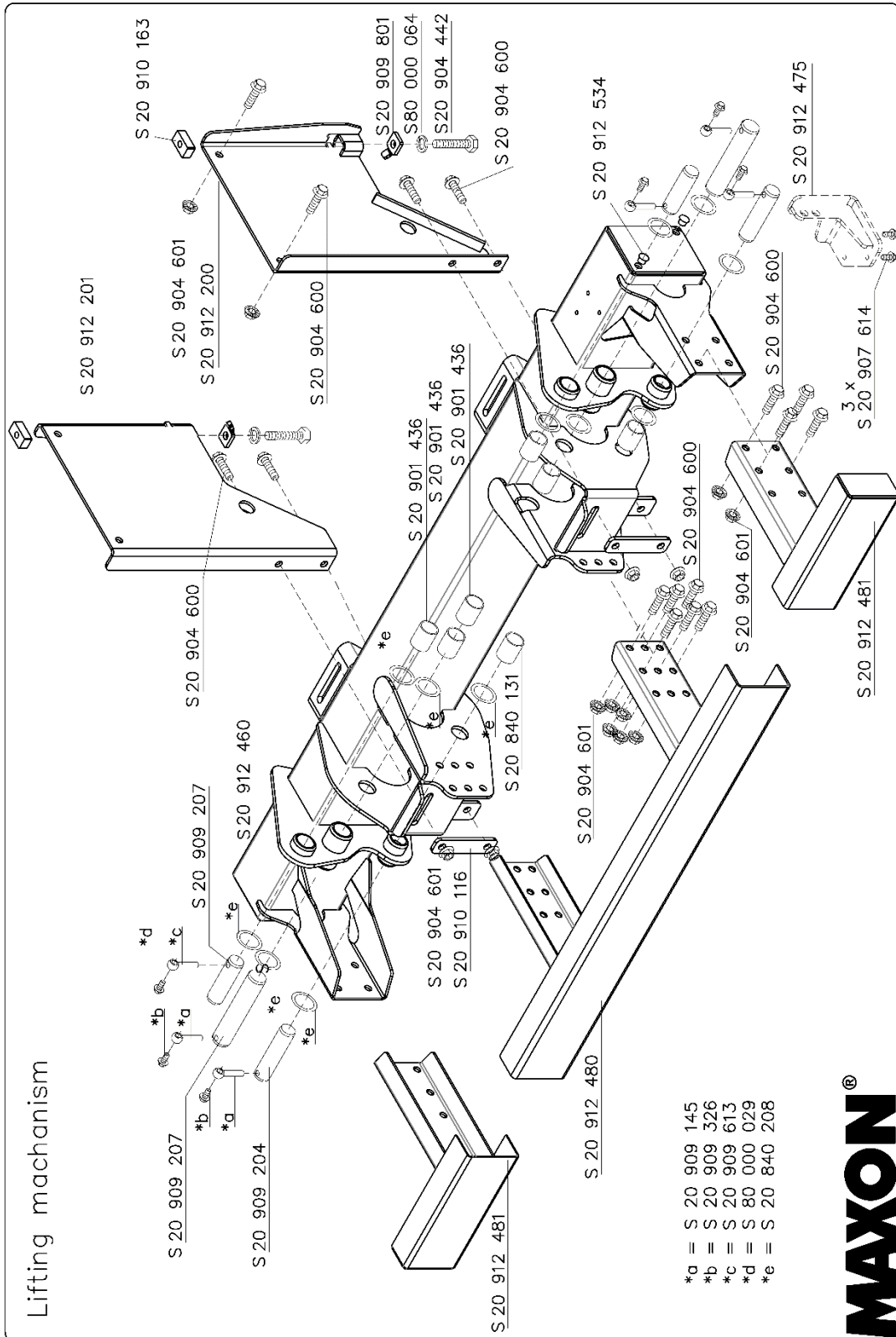
Type	Lift arm	R max Bed height	D min. / max.	* E min. / max.	*W min. / max.
GPC 33 X-4	29 1/2"	51 1/8"	18" / 28"	18" / 23 1/8"	27 1/2" / 33"
GPC 33 X-4	32 1/2"	56"	18" / 29 1/2"	18" / 26 1/2"	29" / 34 1/2"
GPC 44 X-4	35 7/16"	56 1/2"	18" / 28a"	22" / 28 1/2"	31" / 38"

* Note that dimension W is dependent on E. E min. applies for W min. and E max. applies for W max.

If there is not enough space, please contact the sales / customer service by calling 800-227-4116 department. The sales / customer service will contact the technical department to check whether the installation, considering the dimensions of the vehicle, is possible. If the installation is possible, you will get a special drawing in which the installation situation is shown.

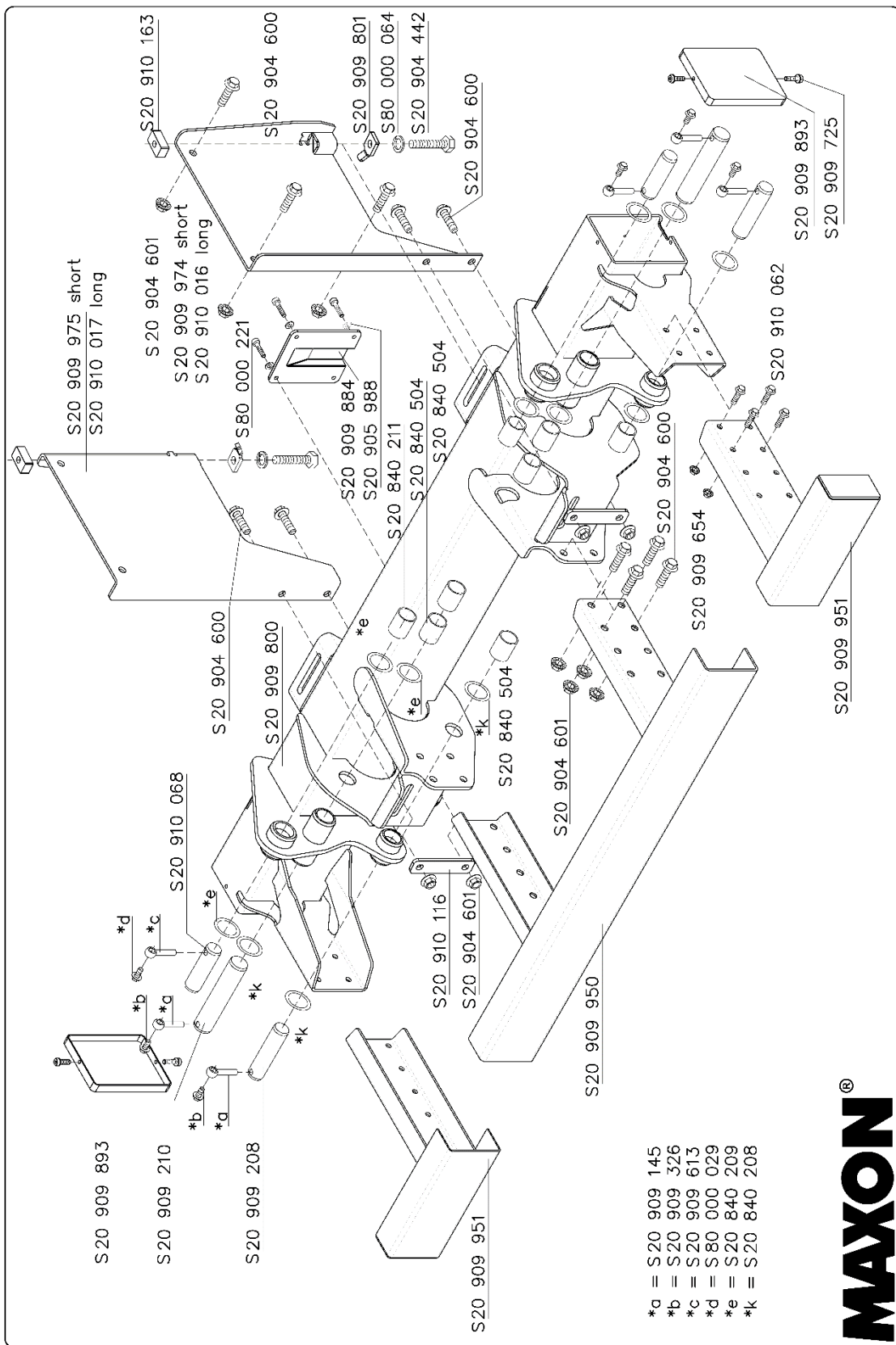
Find technical information online at <https://www.maxonlift.com/support>. For additional technical information, visit <https://www.maxonlift.com/support/technical-service> or you can send an e-mail to: techservice@maxonlift.com.

Assembly drawing for GPC 33 X-4 of mounting brackets and bumper bar



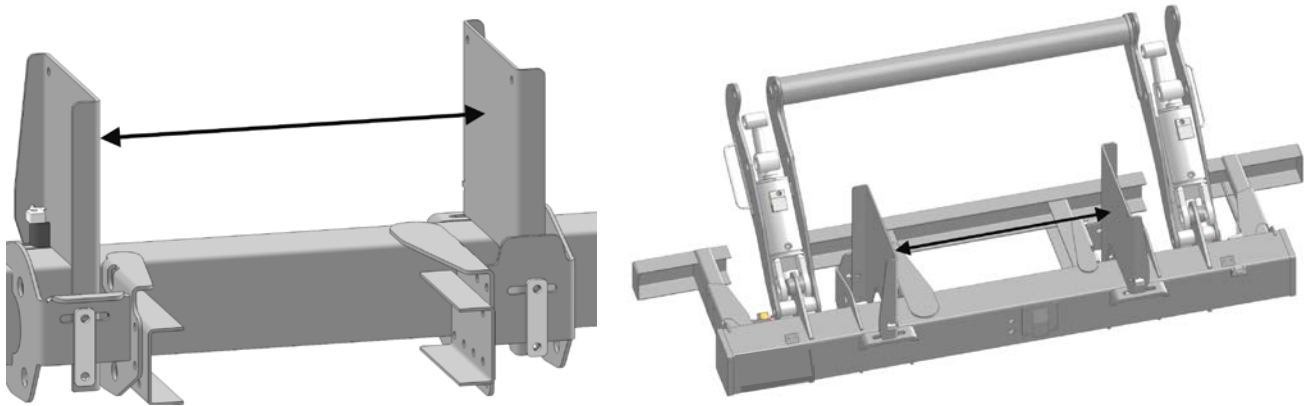
Document no.: S 20 912 535
Version 12.2020

Assembly drawing for GPC 44 X-4 of mounting brackets and bumper bar



Installation of GPC 33 X-4 and GPC 44 X-4 lifting gear

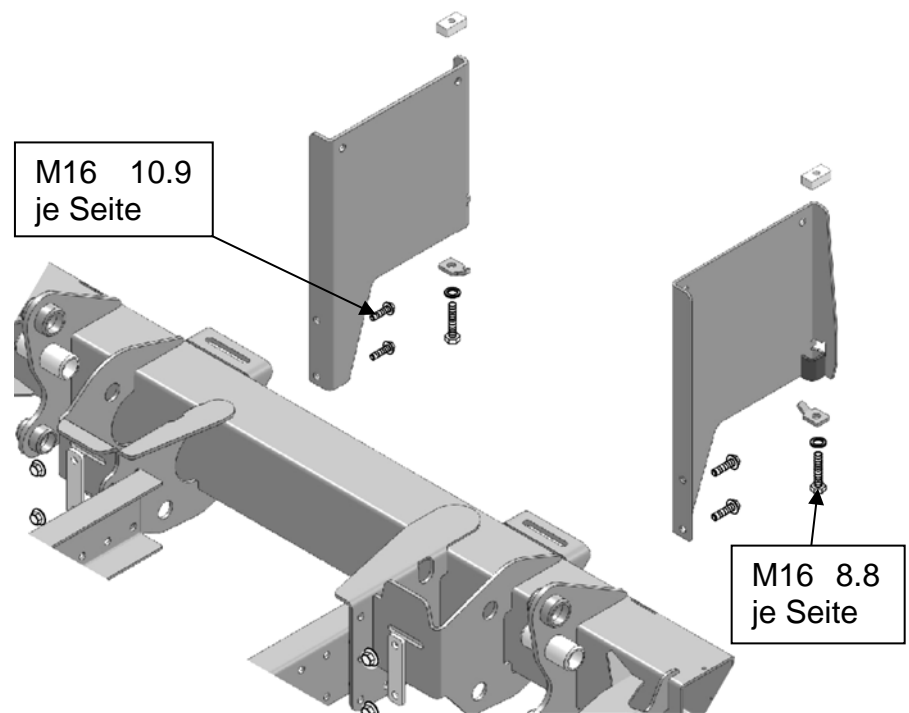
Move the flange brackets to the vehicle frame width. To find out the frame widths that the brackets can be adapted to, and how the brackets can be adapted to other frame widths (e.g. for trailers) by exchanging the left and right brackets, see the dimension drawing on page Fehler!
Textmarke nicht definiert.



The flange brackets can be installed after the liftgate's lifting gear has been mounted under the chassis as described below.

IMPORTANT

Tighten the bolts according to the torque table on page 39



WARNING

Installation at crushing and shearing points

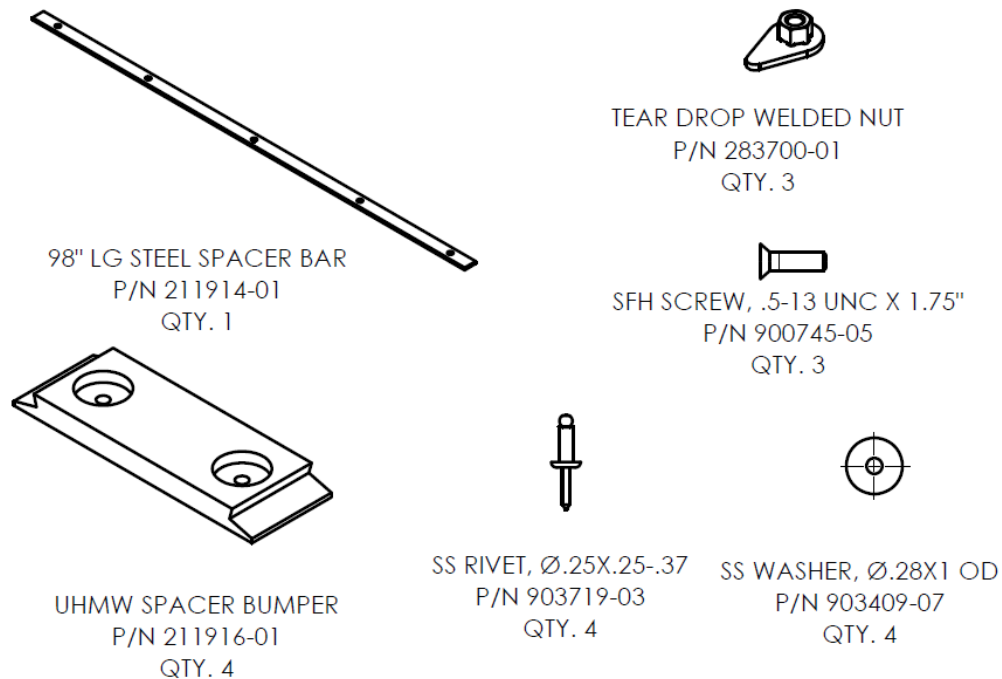
Fingers are at risk of being crushed or sheared when the platform is installed on the lifting gear.

- Be careful at the connecting points between the platform and lifting gear.

Instruction, GPC-X spacer kit installation

Kit p/n 211915-01 (a spacing dampers between GPC-X platform and truck body)

1. Kit components:



2. Steel bar installation (before lift-gate installation)

- for 102" wide truck, use full length of the 98" length spacer bar.
- for 96" width truck, shorten spacer bar by 3" equally from two ends.
- place and clamp the spacer bar horizontally at level with bed height.
- use the bar as a template to transfer holes locations on truck rear sill.
- drill 5x 17/32" diameter holes; remove burrs and sharp edges.
- use provided nuts and screws to mount the spacer bar as shown.

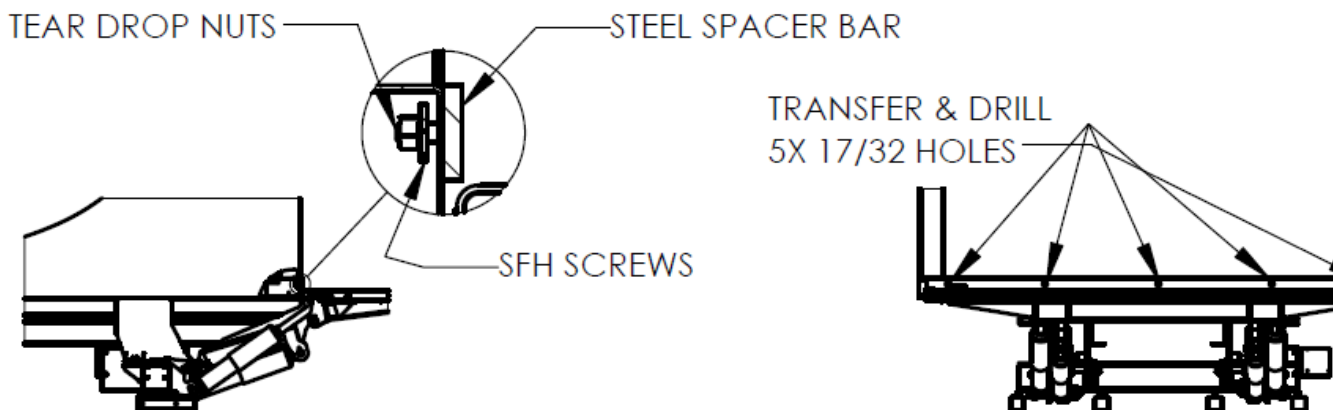
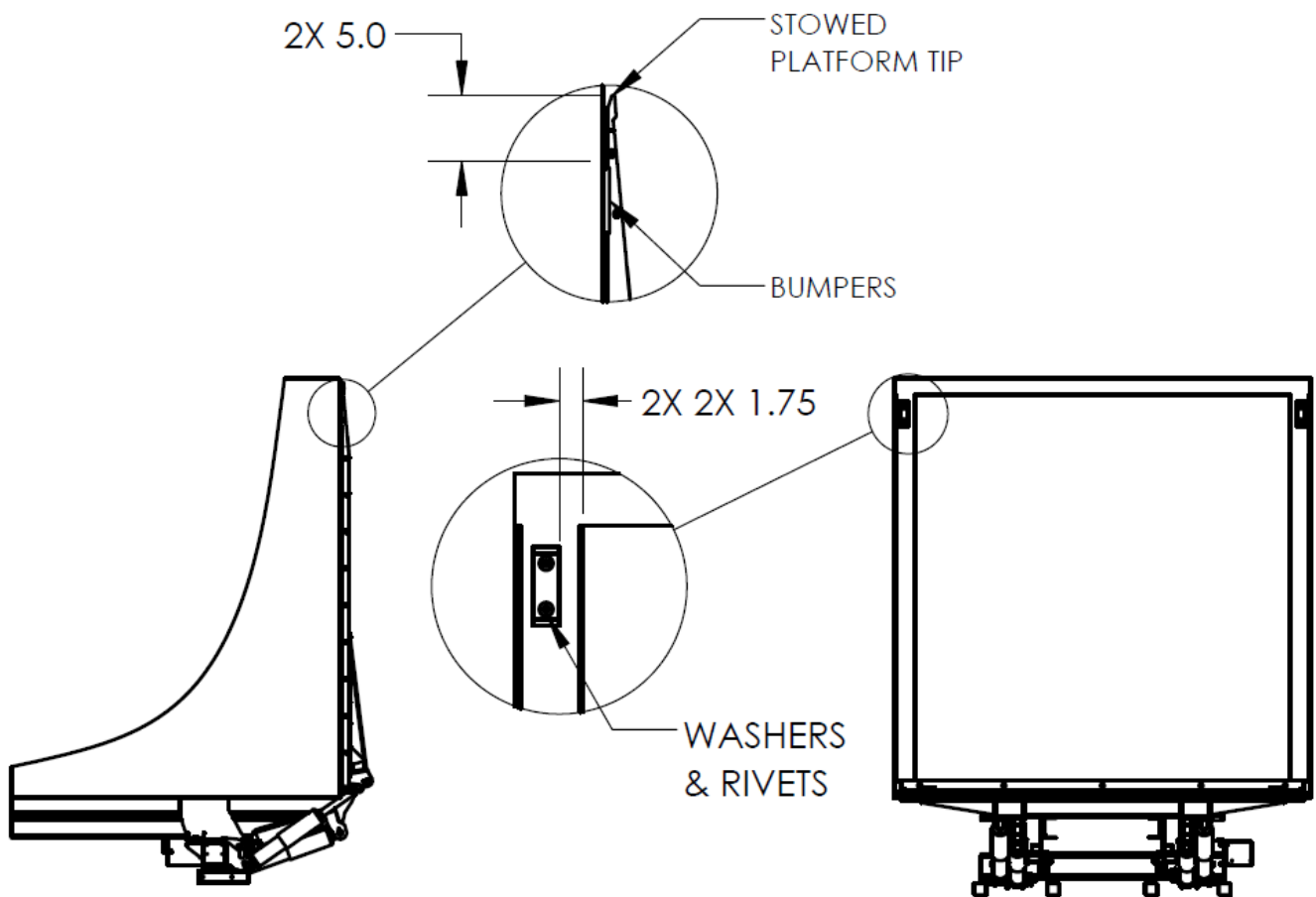


FIGURE 1: STEEL SPACING BAR INSTALLATION

3. Bumpers installation

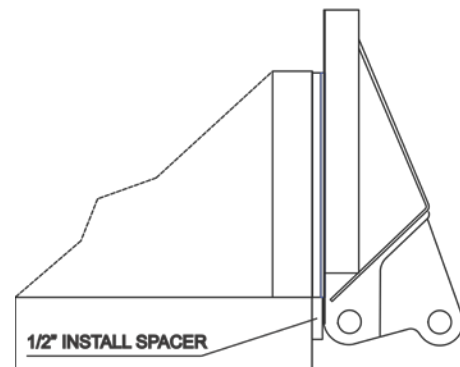
- with platform stowed, mark lines 5.0" platform tip (as shown), both sides.
- with platform unstowed, place bumpers top on lines, 1.75" away from in inside post, both sides.
- use bumper as templates, transfer holes location onto truck sill.
- use the bar as a template to transfer holes locations on truck body.
- drill 4x .26" +/- .005" diameter holes; remove burrs and sharp edges.
- use proper rivet tool to install provided rivet with washers between rivet head and bumper.



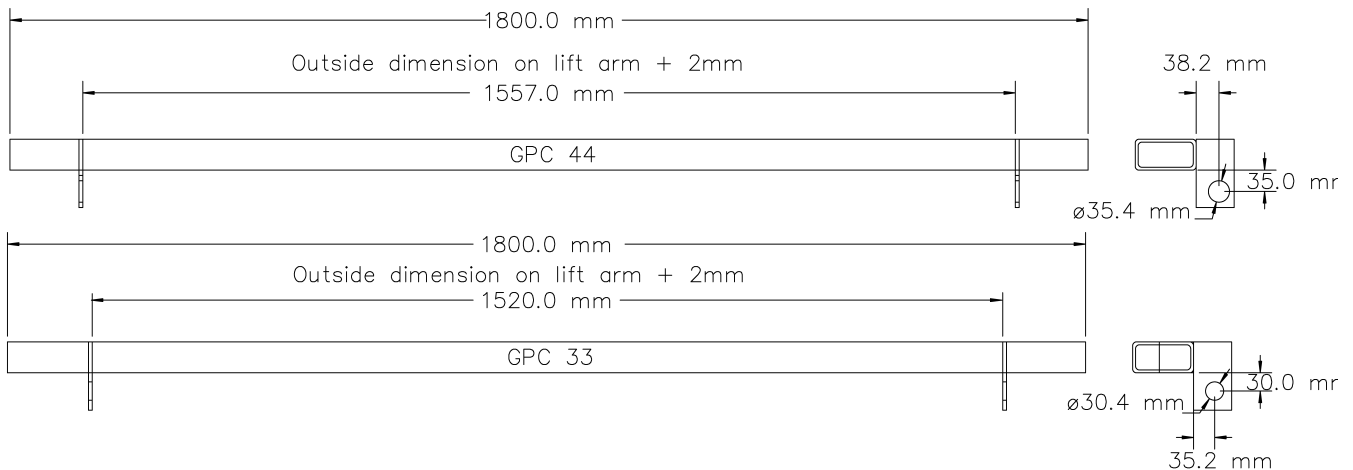
Placement of GPC 33 X-4 and GPC 44 X-4 mount fixture

IMPORTANT

Install 1/2" spacer, bevor attaching mount fixture.
Measure body opening and mark center line
Mark center line on GPC mounting fixture

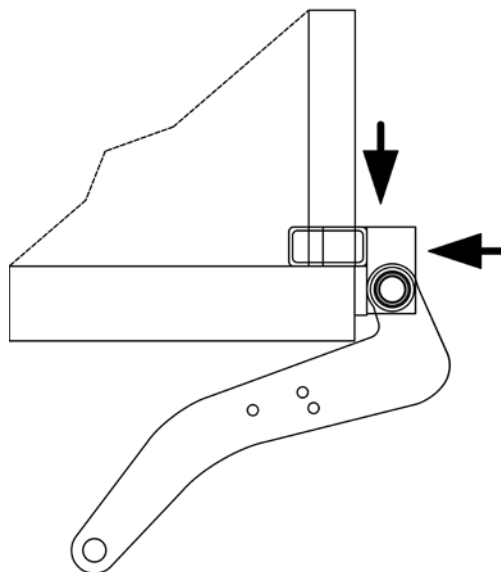


Single bracket to the outside of lift arm, use platform pins to center and align lift on truck

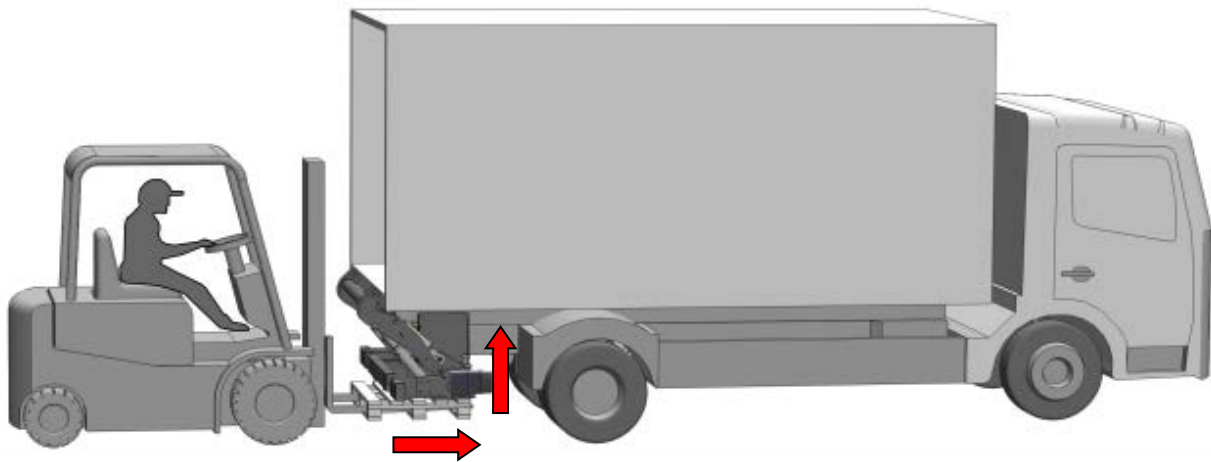


IMPORTANT

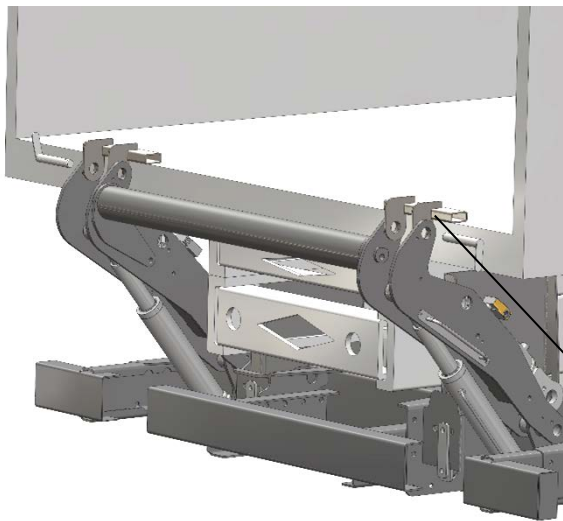
Place the mount fixture tight against the 1/2" spacer before welding or clamping it in place.
Use platform pins to center liftgate on truck body



Alternative assembly with the assembling jig



Position the liftgate's lifting gear under the chassis.



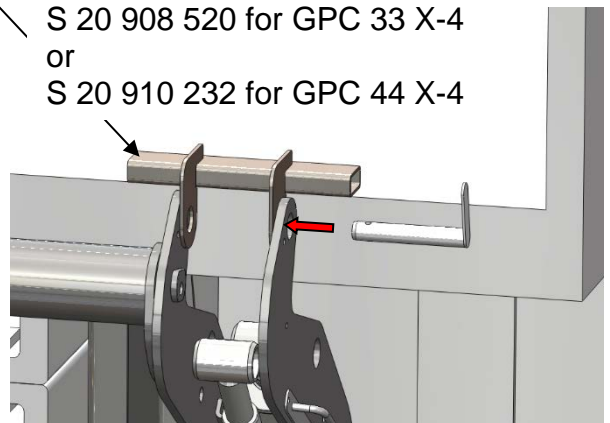
Suspend the lift arms from the assembling jig
Part No. S 20 908 520 for GPC 33 X-4 or
Part No. S 20 910 232 for GPC 44 X-4
and secure with pins.

Align the lifting gear in the middle and on the
sides.

IMPORTANT

If case sealing is present, ensure the proper
clearance.

S 20 908 520 for GPC 33 X-4
or
S 20 910 232 for GPC 44 X-4



Press the assembling jig up against the rear frame and secure it in place using screw clamps. The assembling jig must be securely positioned on the vehicle floor.

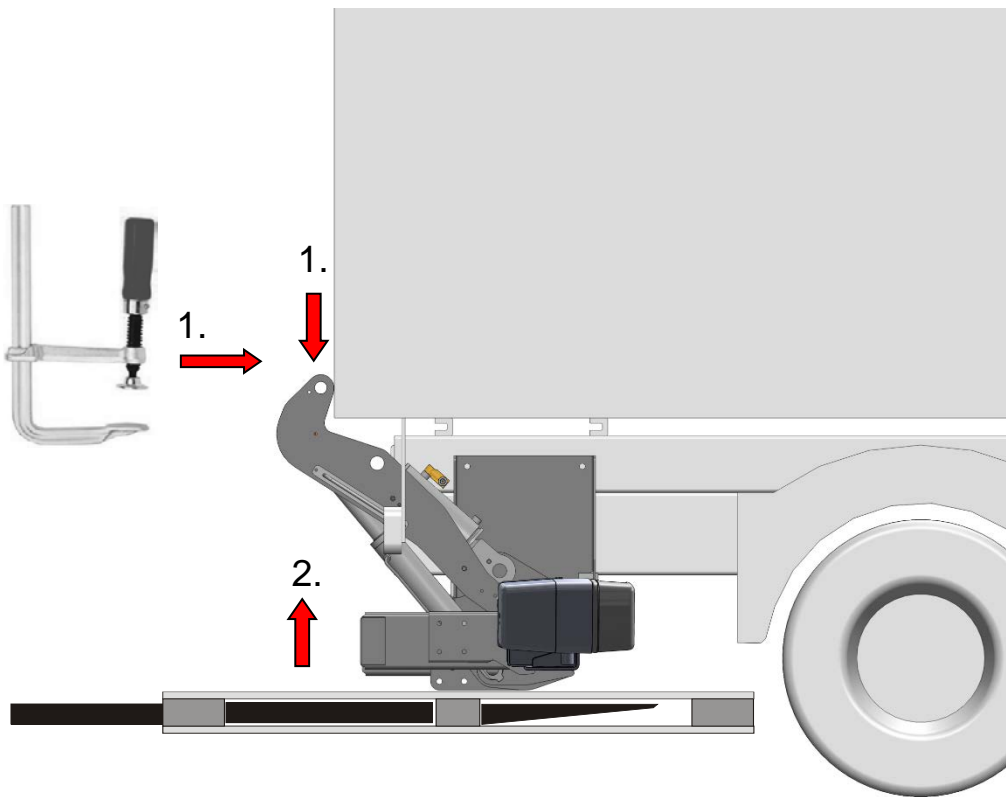


Fig. GPC 33 X-4

Align the lifting gear.

If not already mounted, mount the flange brackets as described on pages 13, 14, and 15.

Compare installation dimensions with the dimension table on page 12.

If a special assembly drawing was prepared for the liftgate, use this drawing to verify the installation dimensions.

Weld the flange brackets onto the vehicle frame in accordance with the weld requirements on page 22.

Alternatively, the liftgate can be bolted on. In this case, mounting holes must be provided in the flange brackets, while taking into account and using the existing mounting holes on the vehicle frame and complying with minimum clearances (separate request). Bolt the flange brackets to the vehicle frame using mounting bolts.

IMPORTANT

When welding or drilling holes in the chassis, be sure to follow the vehicle manufacturer's installation guidelines.

WARNING

Installation at crushing and shearing points

Fingers are at risk of being crushed or sheared when the platform is installed on the lifting gear.

- Be careful at the connecting points between the platform and lifting gear.

Weld requirements

⚠ WARNING

To prevent injury

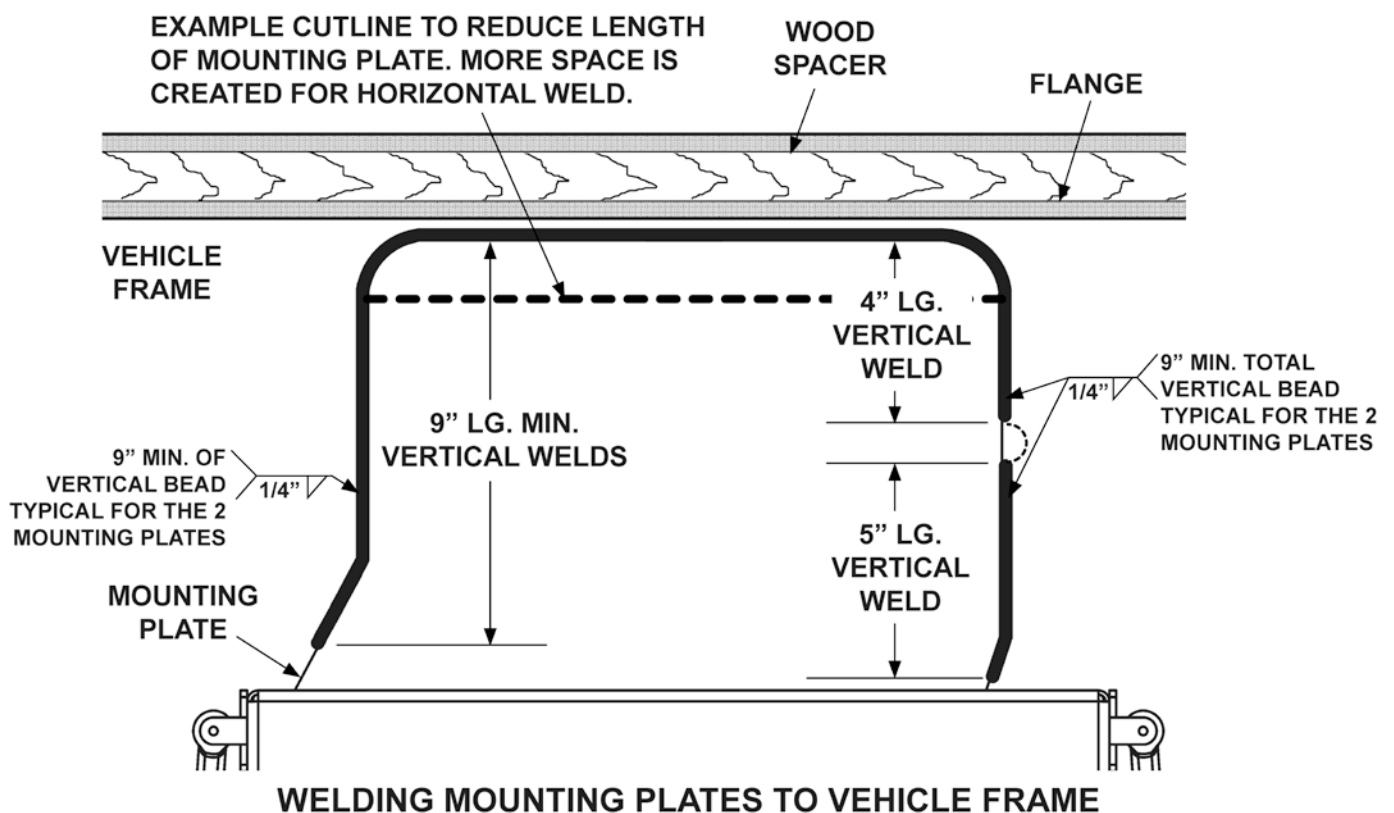
- disconnect power from battery while working under vehicle body.
- Never operate the liftgate with loaded platform until mounting plates are completely welded to the vehicle frame.
- Keep liftgate from moving out of position.

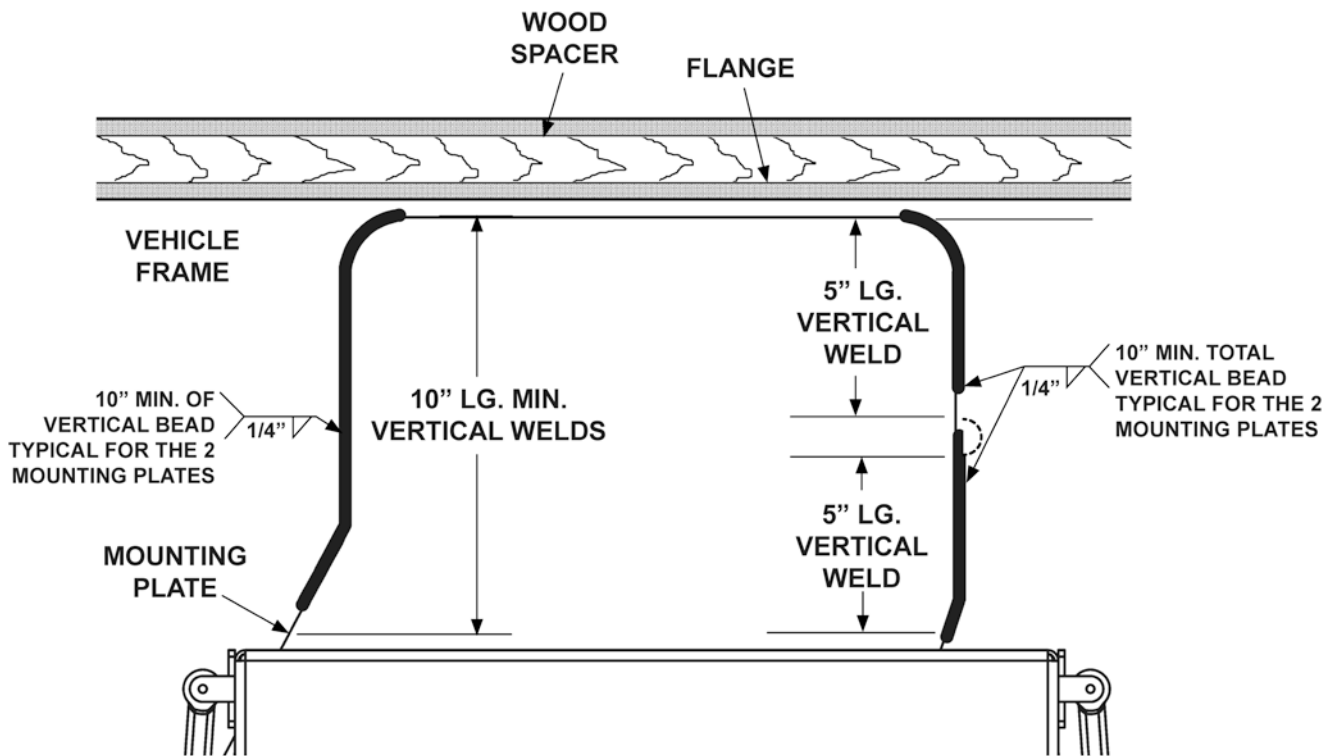
IMPORTANT

Before mounting Liftgate, see if any modification to the vehicle body is needed to access battery cable from the Main Frame Housing.

A hole in vehicle frame could interfere with welding 1 continuous bead on the vertical edges of mounting plate. The mounting plate can be welded above and below hole. However, the length of the 2 vertical welds must add up to the minimum overall length of 1 continuous vertical weld.

Weld each mounting plate to vehicle frame as shown on picture below or choose the alternate method you can see on picture on next page.





ALTERNATE METHOD FOR WELDING MOUNTING PLATES TO VEHICLE FRAME

IMPORTANT

Follow the vehicle manufacturer's installation guidelines and all welding should be done in accordance to AWS welding standards.

Remove underbody coating in the area of the mounting points (contact surfaces between vehicle and installation adapters).

Seal any areas of the vehicle body that are thus exposed (with corrosion protection).

Connecting the cables

WARNING

Vehicle battery short-circuit

Improper connection of the device to the vehicle battery can cause a short-circuit and explosion of the battery.

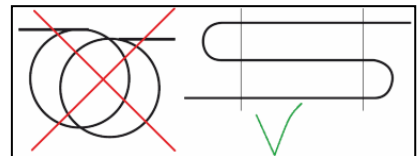
Risk of damage to property, fire, and injury.

- Follow the vehicle manufacturer's instructions for correctly handling the battery.

NOTICE

- When installing cables, make sure they are safe from chafing.
- Do not install cables near heat-dissipating components.

IMPORTANT Excess cable must not be wound up in a coil but must be placed in slings. No rubbing or pinching of the cables should occur.



Assembly of electrical equipment in series 11

CAUTION

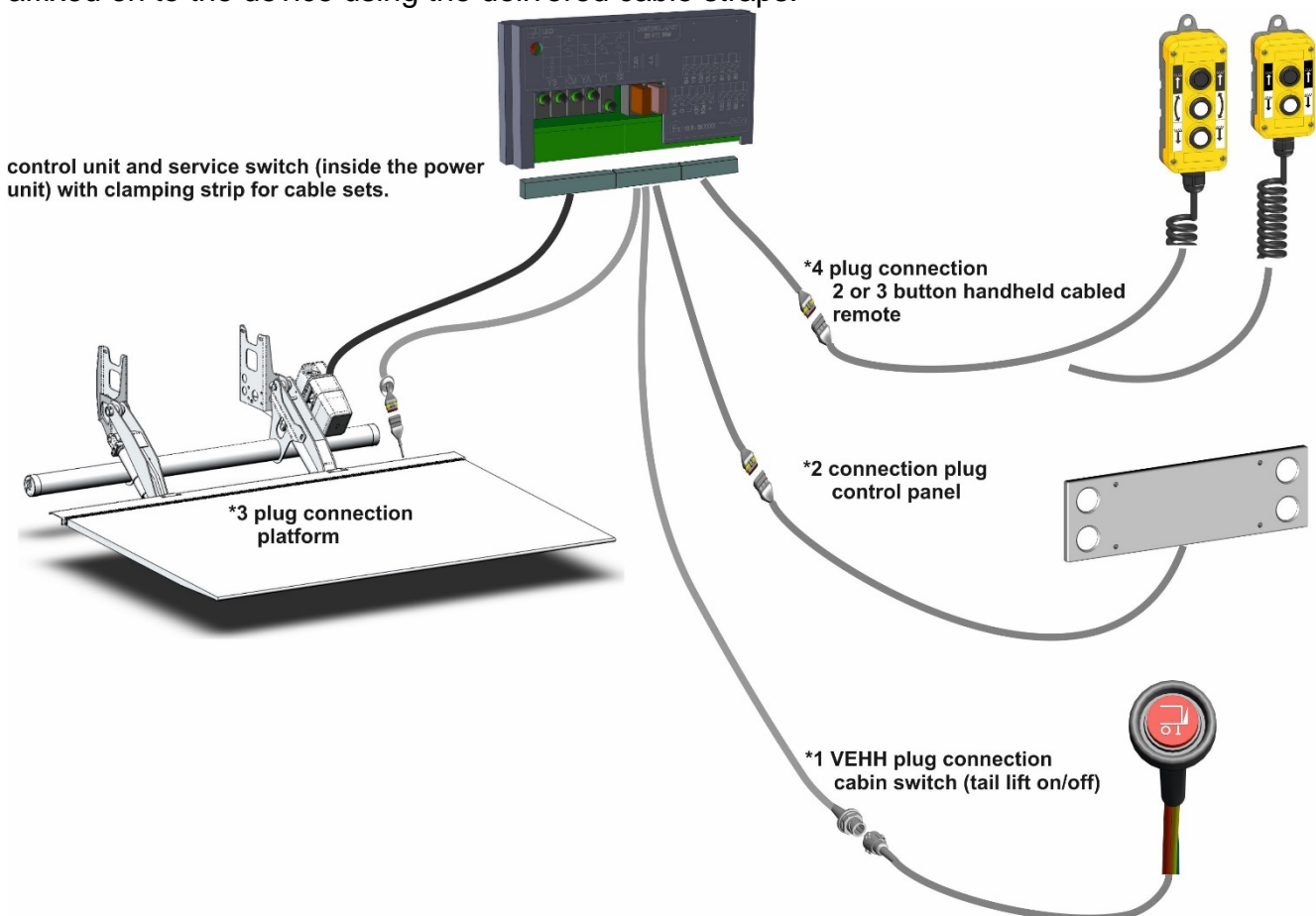
Before starting to connect the electrical equipment, disconnect the vehicle battery. Follow the vehicle manufacturer's instructions for correctly handling the battery.

Foot control

The foot control is connected to the cable set located inside the platform and has already been factory tested. After assembling the platform, the cable set from the central power unit must be affixed alongside the lifting arm with the delivered cable straps in such a way that no pinching or rubbing is possible.

Central power unit

The control unit (main controls, main power unit) containing the service-switch is located inside the power unit and was pre-assembled in our factory. The connections from the power unit's clamping strip (see drawing) to **the cabin switch *1, to the control panel *2, to the platform *3, and optional to the cable remote *4,** are to be made during assembly. All cables must be affixed on to the device using the delivered cable straps.

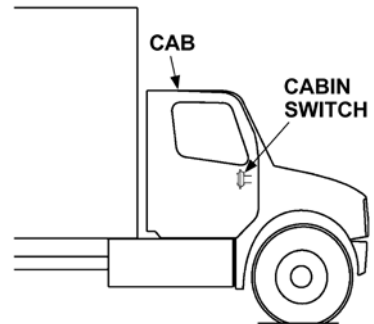


Cabin switch

WARNING

Before starting to connect the electrical equipment, to prevent accidental personal injury and equipment damage, disconnect (-) battery cable and (+) cable from battery.
Follow the vehicle manufacturer's instructions for correctly handling the battery.

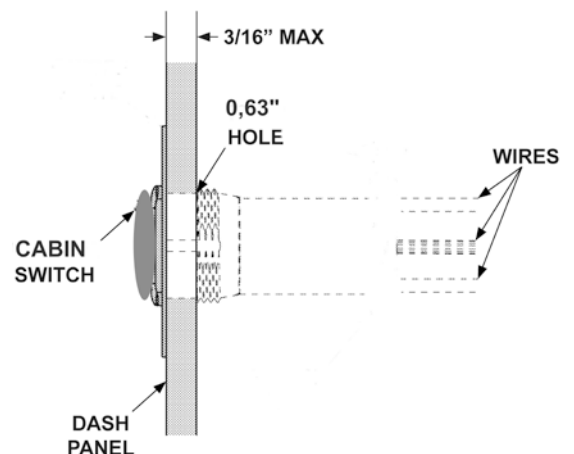
Locate accessible place for cabin on-off-switch on dash panel in vehicle cab. Mark and drill a 0,63" mounting hole in the dash panel for the on-off-switch.



NOTICE

Ensure the dash panel is not thicker than 3/16".

In the cab, feed the cabin on-off-switch wires through the a 0,63" mounting hole until cabin switch are flush against the dash panel.



On-Off-Switch diagram

See also sketch on page 25

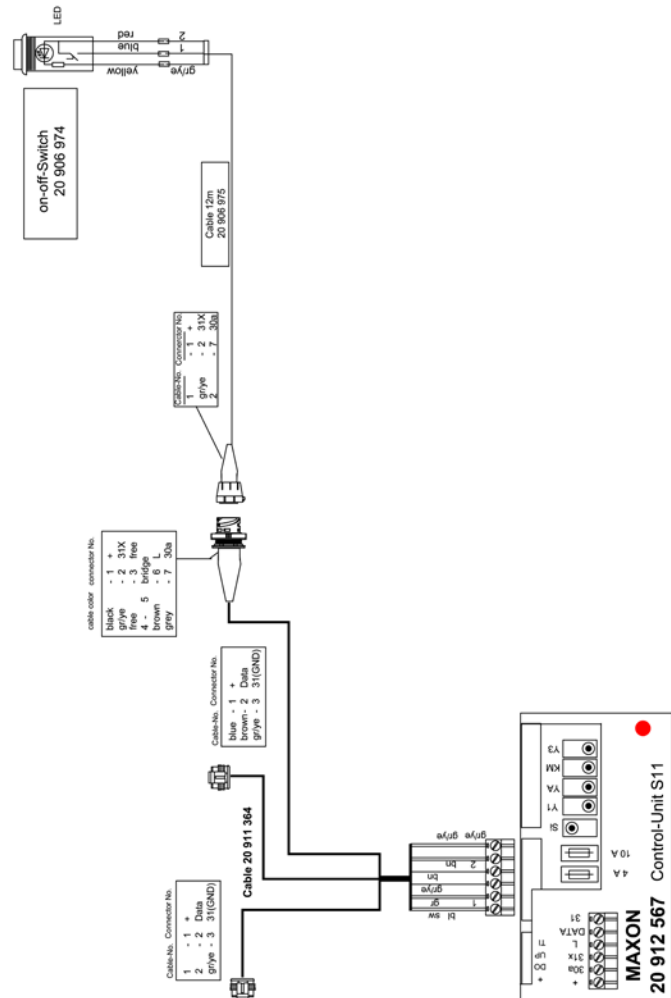
*1 Plug connection cabin on-off-switch

connect the cabin on-off-switch according to the wiring diagrams on pages **Fehler! Textmarke nicht definiert.** and 50.

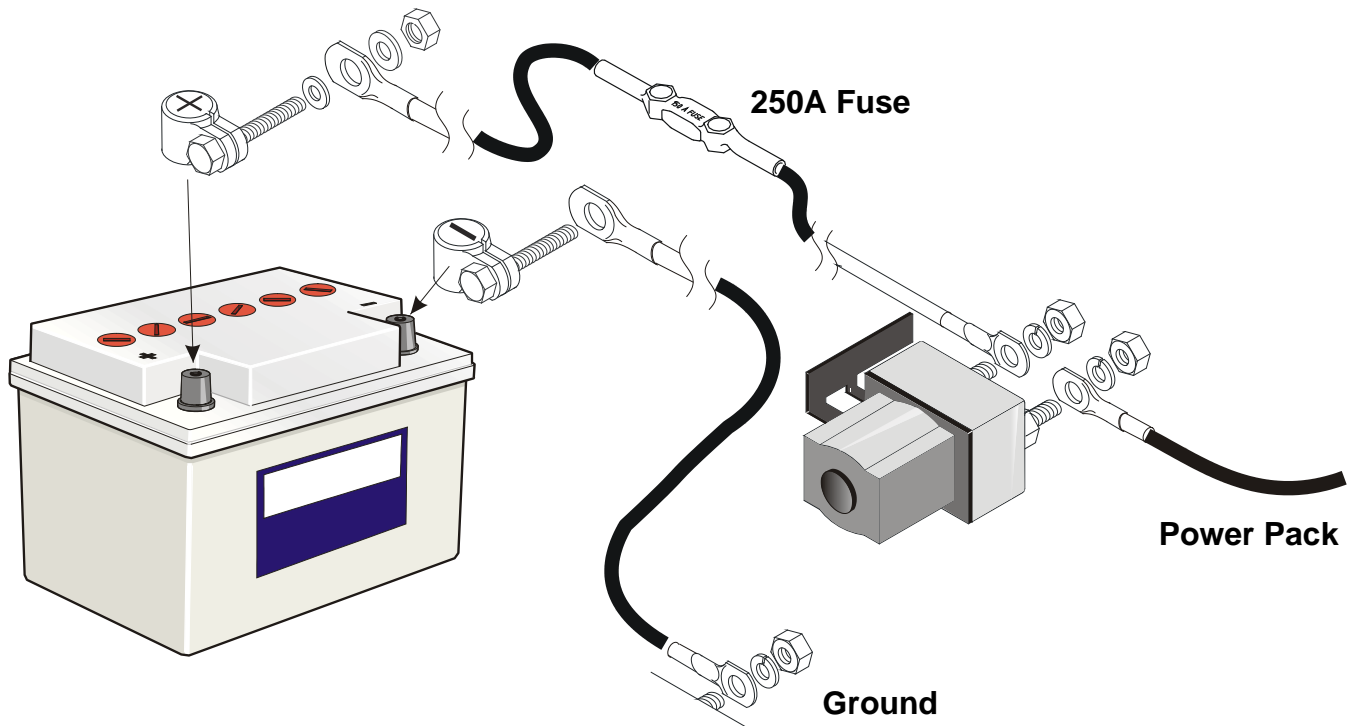
Connect the wires from the cabin on-off-switch 20 906 974 to the wires of the cable 20 906 905 as follows:
yellow with gray/yellow
blue with 1
red with 2

Route cable 20 906 905 to cable 20 911 364 and connect both round canon plugs (ETMA plug connection).

Route cable 20 911 364 to Control-Unit of the liftgate (in Power pack) and connect it.



Power fuse Version for 12 Volt devices



Assemble the fuse kit to the battery plus. Lead the plus cable from the battery to the power unit and connect it to the motor relay. Please connect the power unit plus and ground cable directly on the battery.

CAUTION

The guidelines of the vehicle manufacturer must be followed.

CAUTION

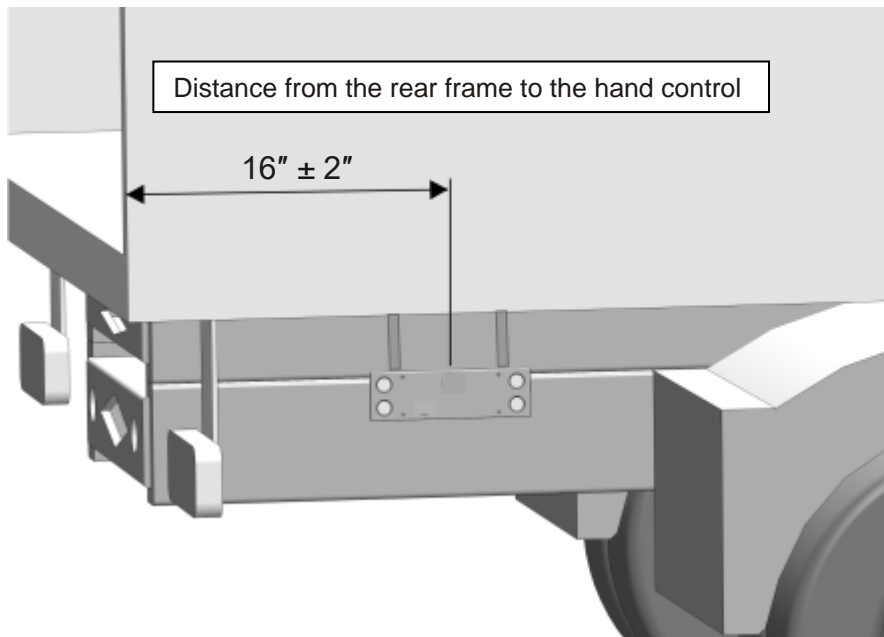
Only operate liftgate with battery cable fixed to a sufficient charged battery.
Never use a charger or start unit even provisional as this can damage relay or motor.

Assembly of control panel

Mount the control panel at the right end of the vehicle so that the platform can be observed from the operating position.

IMPORTANT

The minimum distance should be $16'' \pm 2''$.



CAUTION

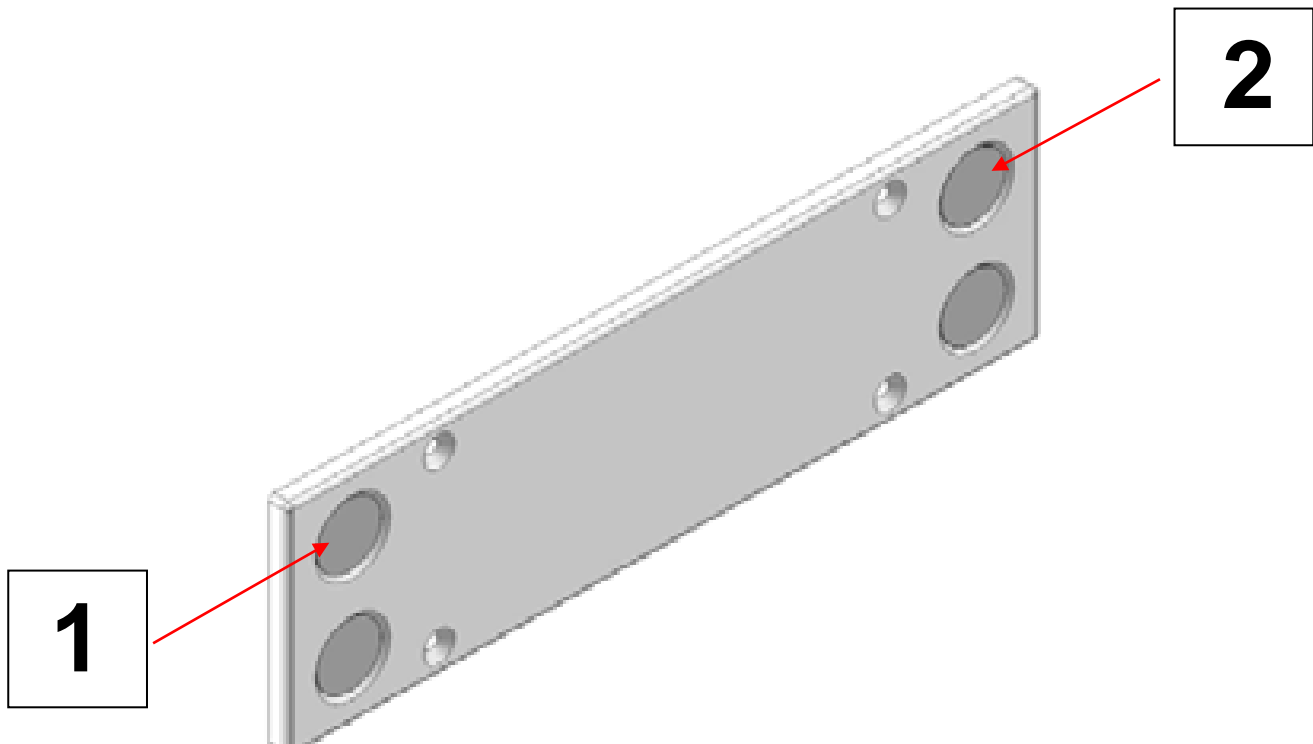
The mounting guidelines of the chassis manufacturer need to be complied with!

Adjusting the platform inclination Series 11 (Tilt sensor programming)

Platform tilt is adjusted by programming the tilt sensor. The tilt sensor is programmed by pressing a combination of buttons on the control panel.

NOTICE

This version of platform harness is not compatible with former versions.



IMPORTANT

After installation or repair of the tailgate:

- Drive the platform the horizontal position
- press button 1 (upper left) three times, then
- press button 2 (upper right) three times

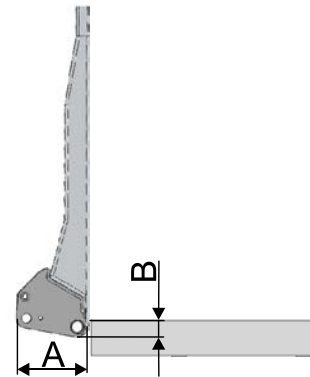
IMPORTANT

Each of the programming sequences with button 1 and then button 2 must be completed within a period of 2 seconds. The flashing-light switches off for 5 seconds and indicates the success of the programming.

The selected position will continue to be used each time the liftgate is operated until the sensor is reprogrammed.

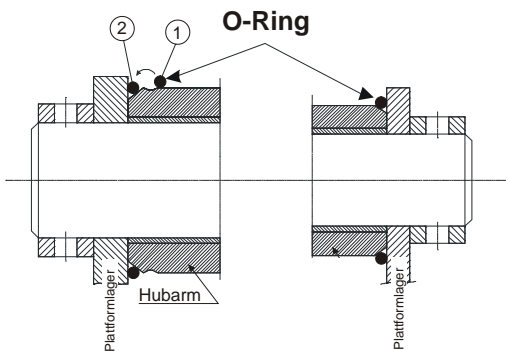
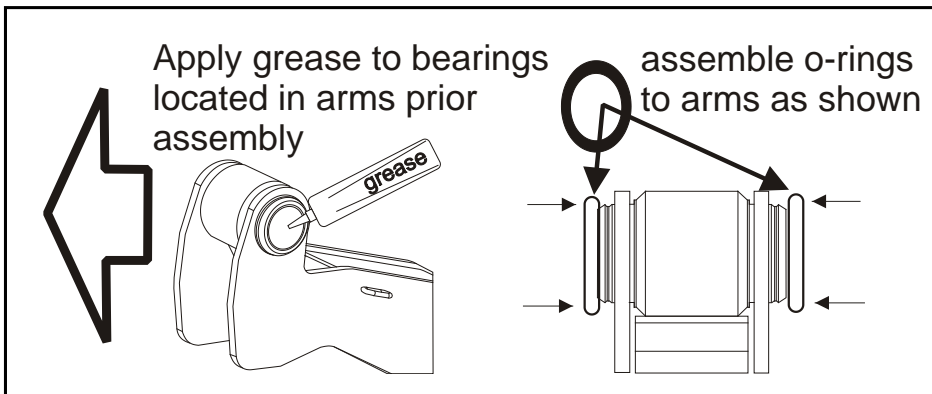
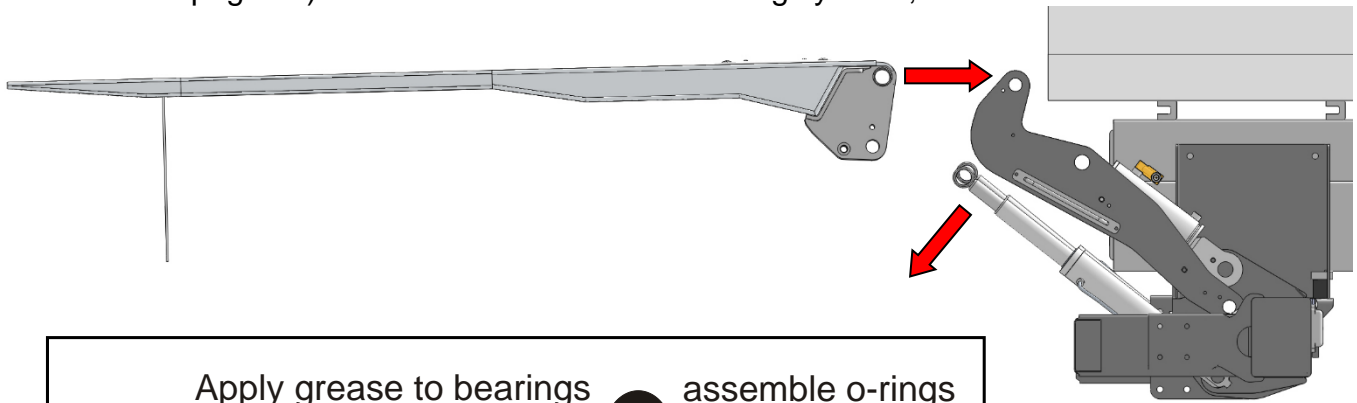
Installation and adjustment of the platform

Type	A	B
GPC 33 X-4	9"	2 1/4"
GPC 44 X-4	10 1/2"	2 5/8"



Installation of the platform

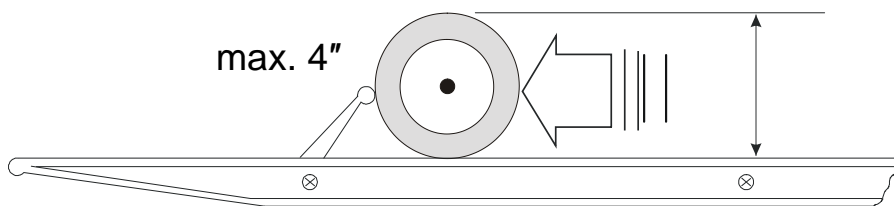
Remove the pins in the liftarm to the installation fixture. Lower the The lifting gear far enough down so you can install the platform. Grease bearing on lift arms and the bearing heads of the tilting cylinder before installing the pins with the special installation grease Part-No.: S 20 840 405 supplied. Install the O-rings before attaching the platform, put on the O-rings (see below and on page 42). Place the lift arms and the tilting cylinder; install and secure the bolts.



Seal all bearing points with O-rings. The O-rings must be mounted on both sides of the lift arm at position 1 before the platform is installed. When installation is complete, carefully roll back the O-rings to position 2.

⚠ CAUTION

Always wear suitable footwear (protective footwear with slip-resistant soles) when stepping on the liftgate. Follow the guidelines established by professional associations. If rolling loads are transported, the liftgate must be furnished with a cart stop. The cart stops on MAXON LIFT CORP. liftgates reliably secure rolling loads up to a wheel diameter of max. 4".

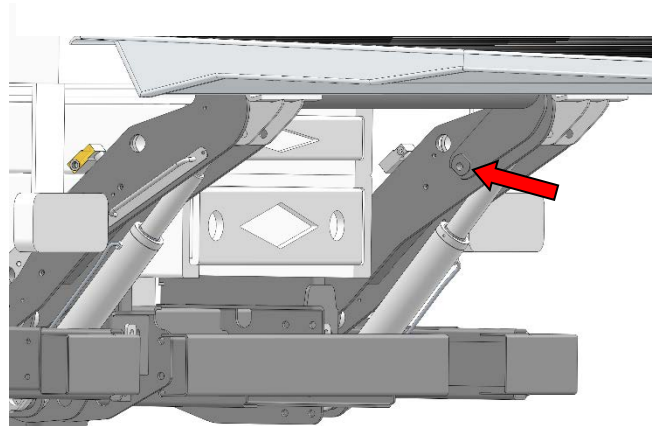


Aligning the platform with the vehicle floor

After installation is complete, the two lift arms must touch the rear frame and must not bounce when the platform is loaded. If necessary, align the platform with the vehicle floor by means of the adjustment nut on the right lift arm.

To adjust the platform, hydraulically move the lifting gear to behind the rear frame with the platform open. The lift arms must not touch the rear frame during adjustment. Before adjustment, loosen the mounting bolt on the underbody impact guard, to which the adjustment nut is also screwed.

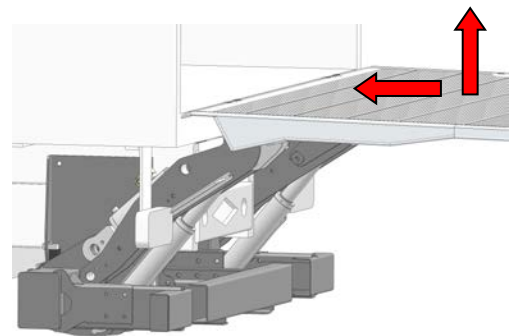
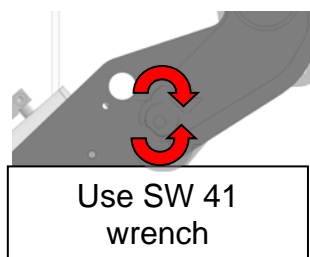
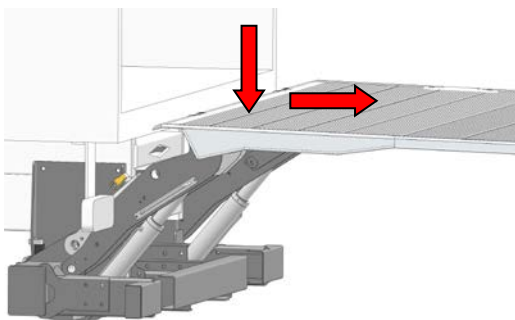
There should be an approx. 3/8" gap between the rear frame and the lift arm. Using the adjustment nut, adjust the lifting gear so that the rear frame and platform are parallel. Following adjustment, tighten the bolts on the underbody impact guard.



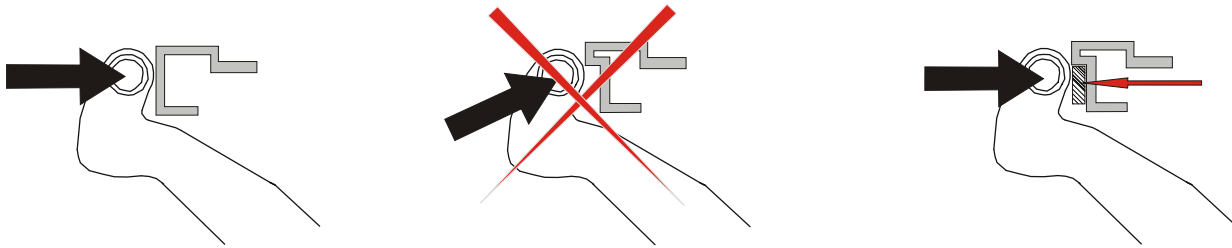
Adjusting the adjustment nut

Rotate the adjustment nut using an SW 41 open-end wrench. Depending on the direction of rotation, the lift arms will move either further from or closer to the rear frame.

The platform moves as shown in the figures below.



Lift-arm stop at vehicle body

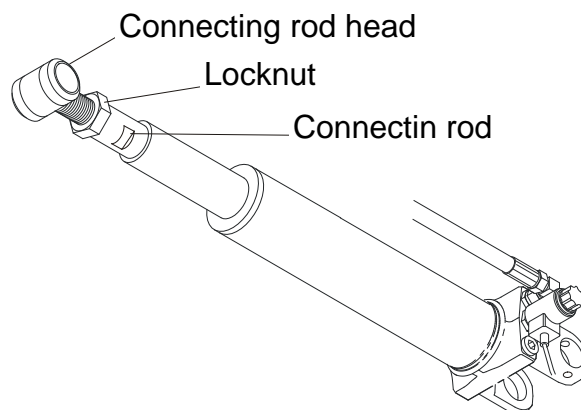


Always drive with the head of the lift arm against a flat surface of the rear frame. Fill in any corners in the area of the rear frame/lift-arm stop, so that a flat stop is provided. Otherwise the vehicle body could be lifted up.

Aligning the platform with the vehicle body in the closed position

Hydraulically close the platform. The cylinder must connect with the stop (mechanical stop in cylinder 4) when the platform is lightly pressing up against the rear door or is positioned at a 90° angle to the vehicle floor. If the platform presses against the vehicle body at full pressure without the cylinder connecting with the stop, adjust the length of the connecting rod.

Open the platform 10° to 15° so that the cylinder is unloaded. Loosen the locknut on the connecting rod and screw the head of the connecting rod further in or further out. Test to ensure that there is a slight pretension. Then tighten the locknut.



Recommendations and instructions regarding the liftgate



IMPORTANT:

To ensure safe operation of the liftgate read the safety instructions and warnings in the accompanying user manual.

Hydraulic oil recommendations

HLPD 22 (ISO-VG 22) “detergent” so that free water remains emulsified (e.g. to prevent ice formation in winter) and to improve oil film adhesion.

In colder regions use HLPD 10 grade hydraulic oil.

Hydraulic oil HLPD 10	Part No. S 20 841 181
-----------------------	-----------------------

Hydraulic oil HLPD 22	Part No. S 60 700 283
-----------------------	-----------------------

Bio hydraulic oil	Part No. S 20 858 811
-------------------	-----------------------

Painting the lifting gear

The lifting gear is powder-coated black ex-works. If another color is desired, painting must be performed by the vehicle manufacturer.

IMPORTANT:

- Roughen the powder-coated surface before painting.
- Mask the black connecting rods before painting.
- Carefully remove extra paint and masking material from the connecting rods after painting to avoid damaging the seals and voiding the warranty.

Entry in inspection record book

- Once the liftgate has been assembled, installed on the vehicle, adjusted, and has passed the function test, a qualified specialist must fill out and sign the section of the inspection record book entitled “Results of test performed by specialist before first operation.”

First operation of the liftgate

Check if the lift is ready to be operated. Check if all moving parts can move freely (no rubbing or pinching on hoses or cables). Check hydraulic system for leaks.

Operating sticker (option)

Stick the operating label to the control box (option)

Type label

The type label with load diagram has to be affixed permanently on the lift.

Testing the liftgate

Function test

Test: opening, lifting, lowering, tilting down, tilting up, closing

CAUTION

Platform at ground level

In the fully lowered position, the platform is easily overlooked and may cause people to trip, resulting in injury.

- If leaving the platform in this position for a longer period of time, secure the area.

Check of operating speeds

Vertical speed

Test: vertical speed (lifting and lowering) must not exceed 6"/second. If lifting and lowering are too fast, please compare the battery voltage and amperage with the values of the power unit. These values must be identical.

If lifting and lowering are too slow, please check the valves for dirt.

WARNING

Permissible vertical speed exceeded

Risk of injury when operating the liftgate.

- Contact customer service.

Tilting speed (10° to -10°)

Test: angular velocity when tilting up and down

The angular velocity when tilting up and down must not exceed **4°/sec.**

The platform tilting must be limited to 10°

WARNING

Permissible angular velocity exceeded. Risk of injury when operating the liftgate.

- Contact customer service.

Load test

Static test

- Operate the horizontal platform to the height of the vehicle floor.
- Place a test load weighing 125% of the rated capacity on the platform within the loading distance.
- During a test period of 15 minutes, the platform must not lower more than 3/5" and must not tilt down more than 2°.

IMPORTANT: The permissible loading distance and the rated capacity are engraved on the liftgate's rating plate. The loading diagram on the rating plate shows the permissible loads when the loading distance is changed.

IMPORTANT: After the static test, the installer must inspect the liftgate for deformation.

WARNING

High loading of components

Incorrect installation or defective components may cause components to fail and break.

Risk of injury when operating the liftgate.

- Perform all the load tests specified here.

Dynamic test

The functions lifting, lowering, tilt up and tilt down must be tested with a nominal load placed at nominal load distance. If necessary, the pressure valve must be adjusted so that the load can be lifted securely.

IMPORTANT

The pressure valve is adjusted in the factory, a correction is generally not necessary.

If it has to be done anyway, please note the following:

- The pressure valve can only be adjusted if a manometer for reading the pressure is provided. The maximum allowed pressure is engraved on the type label.
- After the static and dynamical tests, please check the hydraulic system for leaks.
- After performing the static and dynamic tests, visually inspect the hydraulics system for tightness.

Testing against lifting an overload

- Perform a test to guarantee that a load of more than 125% of the maximum rated capacity cannot be lifted off the ground.

Testing the safety devices

Operate all the functions to their end positions until all the safety devices respond.

Alternative installation of GPC 33 X-4 compact power pack

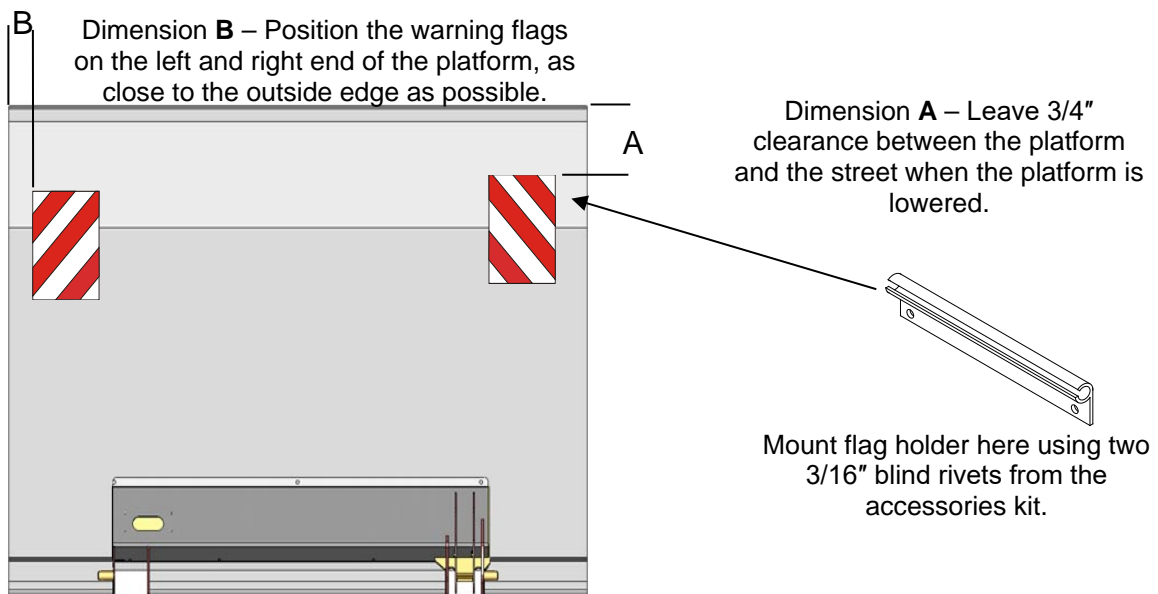
The compact power pack can be mounted on the axle assembly in order to save space (see photo below).



Fig. GPC 33 X-4

Warning flags

Remove the warning flags from the accessories kit and mount them in accordance with the installation instructions provided.

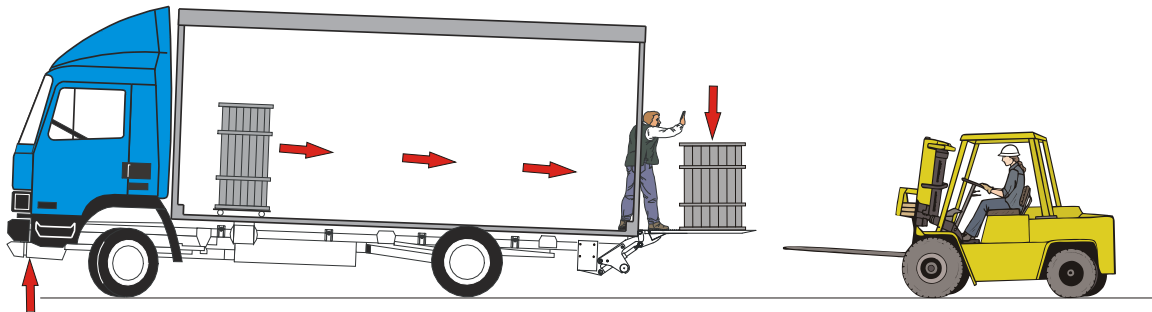


Torque table for all supplied and installed bolts on Maxon Lift CORP. liftgates

Bolt Size	Tightening Torque		Bolt Connections	Tightening Torque	
	in ft.lb	Nm		in ft.lb	Nm
8.8					
M4	2	2.7	G1/4"	29	40
M6	7	9.5	G3/8"	70	95
M8	17	23	G1/2"	96	130
M10	33	46	Connection Nuts		
M12	59	80	M16 x 1.5	44	60
M14	96	130	M18 x 1.5	44	60
M16	143	195	Plugs		
M20	283	385	G1/8"	11	15
10.9			G1/4"	24	33
M12	85	115	G3/8"	51	70
M14	132	180			
M16	202	275			
M20	398	542			
Solenoid valve					
YM, Y1, Y2	20	27			
Starter solenoid					
KM	6	8			

Caution sticker “secure the load”

This sticker is not included in the delivery of the liftgate. This sticker is an information that there are situation during loading and unloading that may be a hazard, when the front truck axle is coming up. On the resulting ramp, the load may start to move, it can be very hazardous to people.



Please apply the sticker on the free space above the controls of the control box. This spot should be in area that is visible to the operator at all times.

**Caution! Secure the load against moving
Or use mechanical supports**

©Sörensen Hydraulik GmbH

20 904 940

Installing supports (vehicle-dependent)

With some vehicle types and installation versions, maximum loading of the platform can cause the front of the vehicle to lift up.

⚠ WARNING

Shift in center of gravity and lifting up of front end of the vehicle

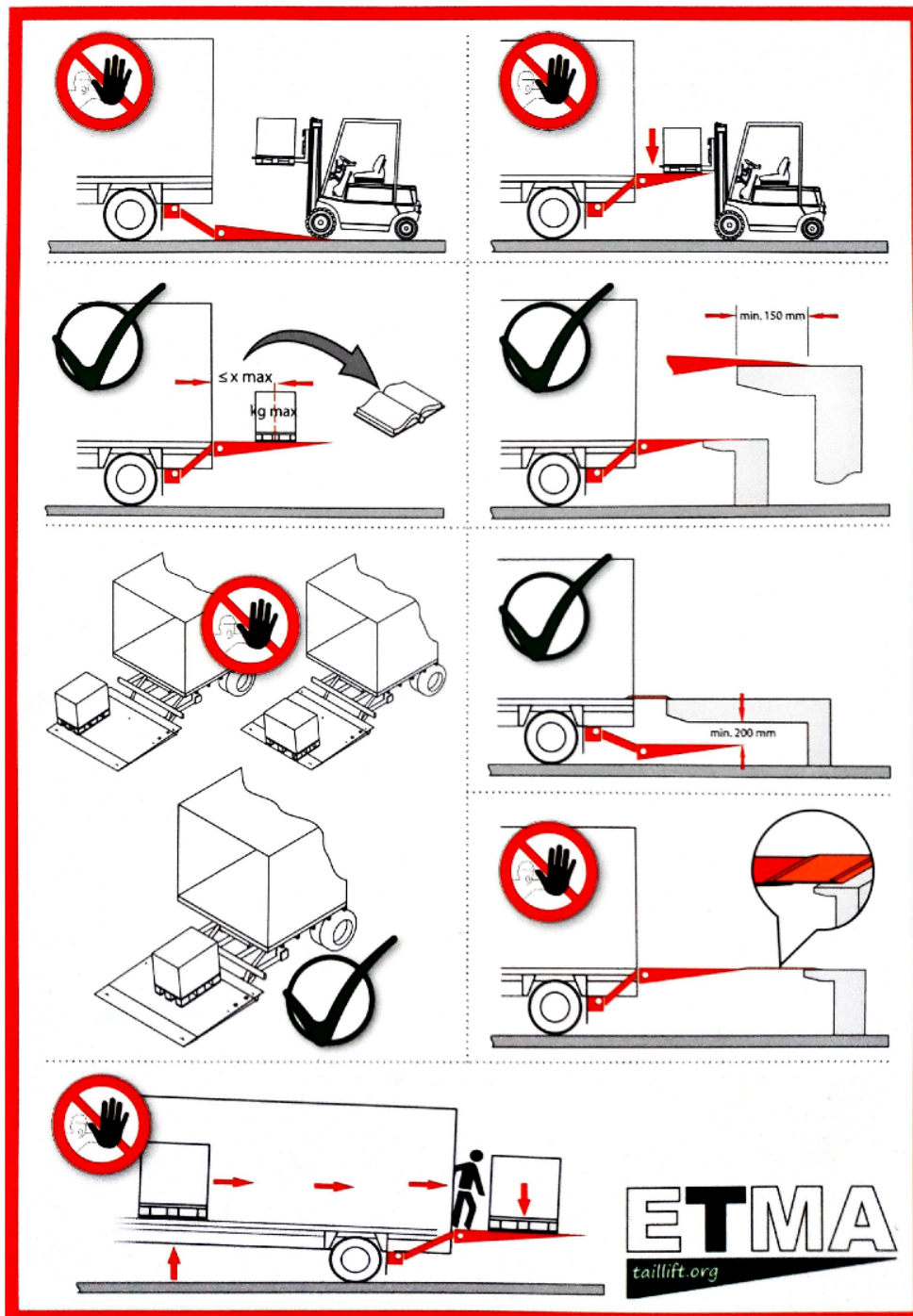
Unexpected movements of the vehicle can result in the severe injury or death of bystanders.

- Follow the vehicle manufacturer's installation guidelines. If necessary, install supports.

Affixing the danger notice sticker

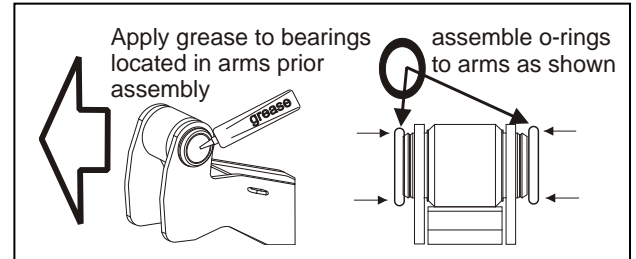
Affix the danger notice sticker "Safe handling of the liftgate."

IMPORTANT: This sticker is supplied with all new liftgates. The installing company must place it in an easily visible location on the inside of the vehicle cargo area. The danger notice sticker uses pictograms to indicate potential incorrect and correct use of the liftgate.



Decals for GPC 33 X-4

These Decals should be read and completely understood before operating the unit. They should also be kept clean and readable at all times. If any decals should become detached from the vehicles, or defaced, it must be replaced. Free replacement is available from: MAXON LIFT CORP. Parts Department.



max. bed height

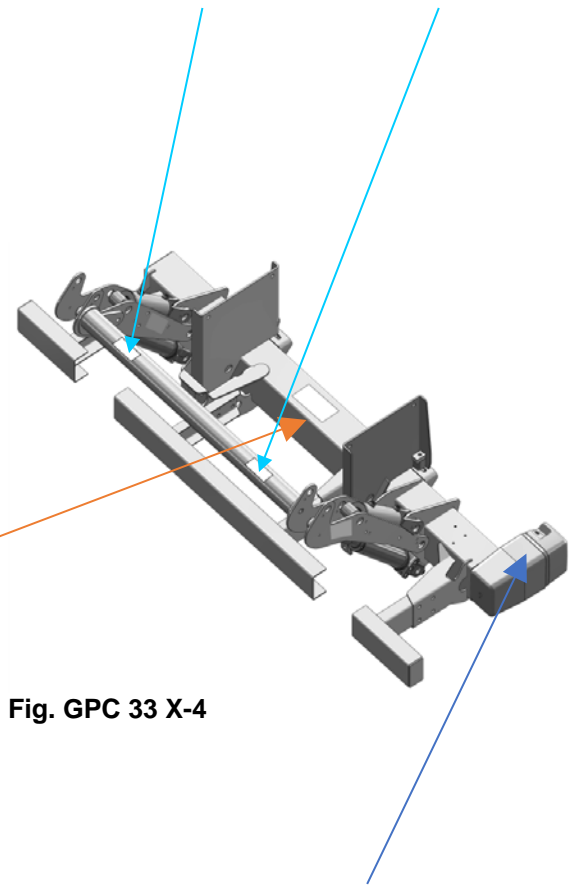
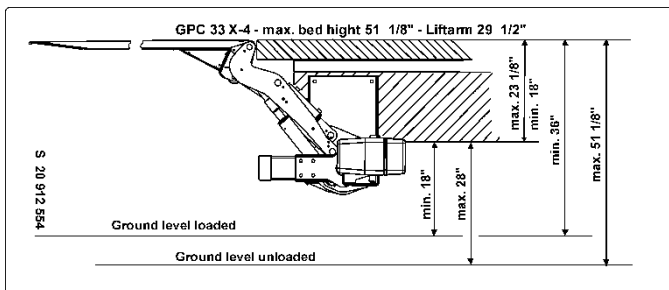
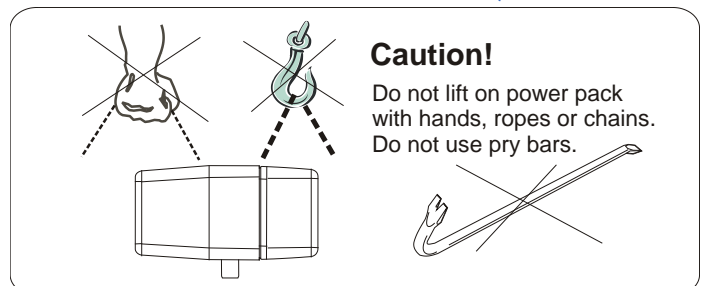
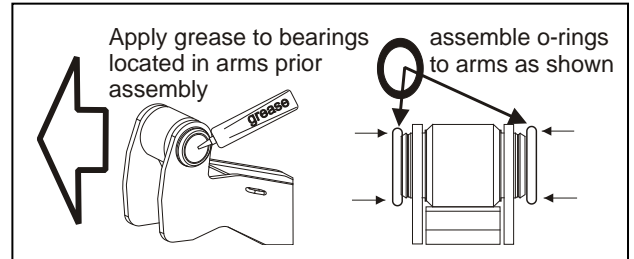


Fig. GPC 33 X-4



Decals for GPC 44 X-4

These Decals should be read and completely understood before operating the unit. They should also be kept clean and readable at all times. If any decals should become detached from the vehicles, or defaced, it must be replaced. Free replacement is available from: MAXON LIFT CORP. Parts Department.



max. bed hight

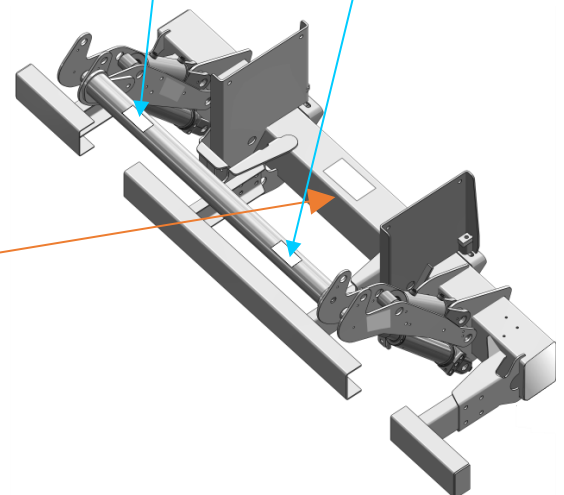
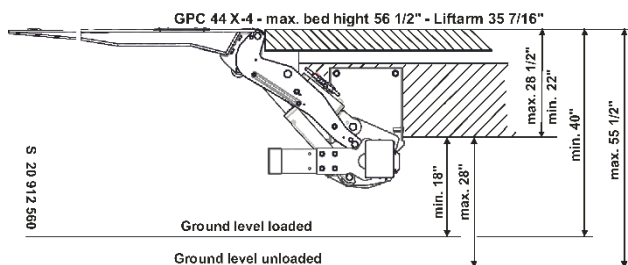
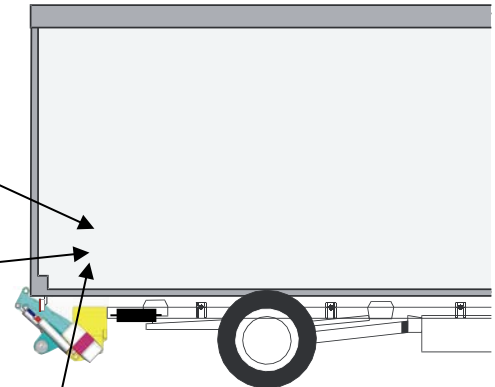


Fig. GPC 44 X-4

Decals for GPC 33 X-4 and GPC 44 X-4

<p>THE MAXIMUM CAPACITY OF GPC 33 X-4 LIFT IS 3300 POUNDS</p>
<p>THE MAXIMUM CAPACITY OF GPC 44 X-4 LIFT IS 4400 POUNDS</p>



CAUTION
STAND CLEAR
WHEN OPERATING

50092

WARNING

TILT THE PLATFORM TO
LEVEL POSITION PRIOR
TO RAISING

All liftgate warning, capacity, and caution decals should be affixed to the truck body in plain view of the operator near the main lift gate Control Station.

IMPORTANT

The main liftgate Control Station is normally mounted on right rear corner of the truck body.

WARNING
READ CAREFULLY

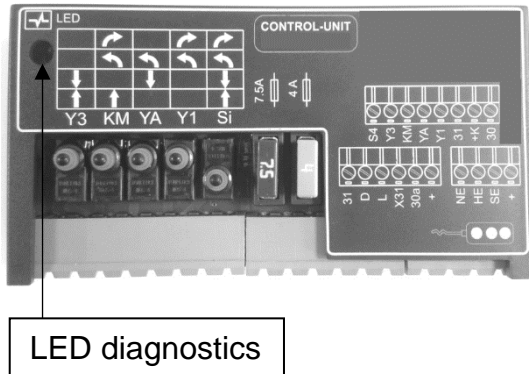
- Improper operation of this Lift can result in serious personal injury. Do not operate unless you have been properly instructed and have read, and are familiar with the operating instructions. If you do not have a copy of the instructions, please obtain them from your employer, distributor, or lessor, before you attempt to operate Lift.
- Be certain that the vehicle is properly and securely braked before using the Lift.
- Always inspect this Lift for maintenance or damage before using it. If there are signs of improper maintenance, damage to vital parts, or slippery Platform surface, do not use the Lift until these problems have been corrected.
- Do not overload the Lift. The load limit is based on evenly distributed cargo over the entire Platform surface. If you are using a pallet jack, be sure it can be maneuvered safely. Do not operate a forklift on the Platform or travel with the platform in an open position at any time.
- Load should be placed in a stable position close to the edge of the Platform nearest the truck. The heaviest portion of the load should never be placed beyond the center of the Platform away from the truck.
- Never allow yourself, a helper, or bystander to stand in a position where a falling load could land on either of you. Also do not allow any part of yours or your helper body to be placed under, within, or around any portion of the moving liftgate, or it's mechanisms, or in a position that would trap them between the platform and the ground or truck when the liftgate is operated.
- If a helper is riding the Platform with you, make sure you are both doing so safely and that you are not in danger of coming in contact with any moving or potentially moving obstacles. USE GOOD COMMON SENSE. If load appears to be unsafe, do not lift or lower it.

MAXON LIFT CORP. PART NO.
264081

LED diagnostics in series 11

Explanations for LED diagnostics of the control unit with service switch on series 11 main electrical system, main control unit with service-switch)

Series 11 control unit with service switch



LED stays on when:

cabin switch is on or
 platform position 60° to 90°
 platform position 0° to -10°
 Explanation: platform CLOSED (vertical) 90°
 platform OPEN (horizontal) 0°
 platform tilted down -10°

LED tilting when:

hand buttons are triggered
 or
 foot control is used
 or
 remote is used

LED off when:

cabin or key switch is off
 or
 platform position 0° to 60°

Checking the inclination sensor inside the platform

platform closed and liftgate switched on:
 LED on
 electrical supply OK

platform position 0° to about 60°
 LED off
 inclination sensor S1 triggered and OK
 corner lights are activated

platform position 0° to -10° (platform tilted down)
 LED on
 inclination sensor S2 activated and OK
 The switch occurs in horizontal position. This allows adjusting the automatic lifting inclination

Checking the pressure switch S4:

Start lowering with both foot control buttons.
 LED blinks

As soon as the platform reaches the ground, and the pressure switch is triggered, the blinking stops and the LED stays on. LED is on and the platform tilts down.

This shows that the pressure switch was triggered. If not, the pressure switch is defective.

Service Switch in series 11

Authorized personal can use and test all liftgate functions directly with the control unit with service switch located in the power unit.

In case of failure of the hand or foot controls, the liftgate can be driven into any position by authorized personal (emergency function)

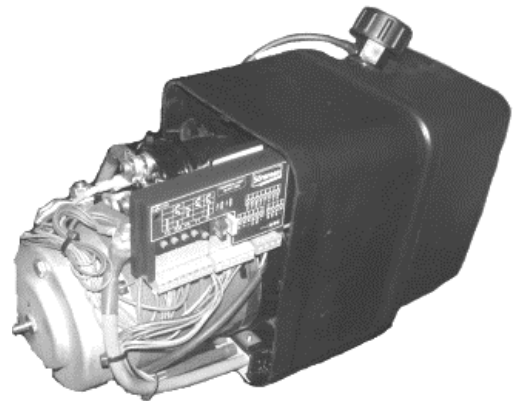


Fig. GPC 33 X-4

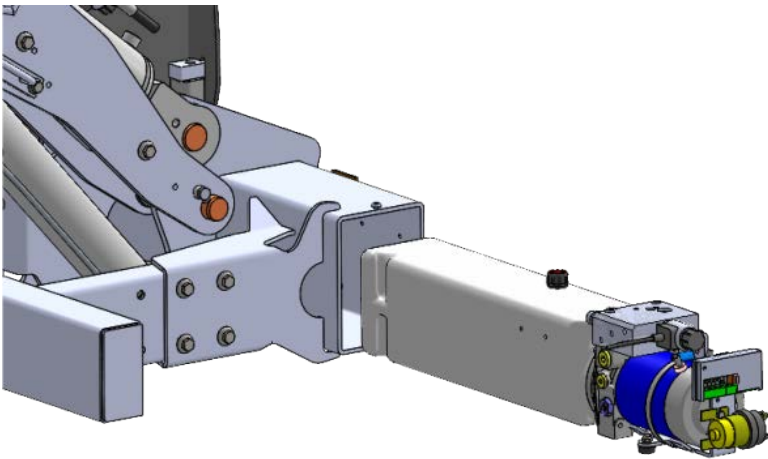


Fig. GPC 44 X-4



Fig. GPC 44 X-4

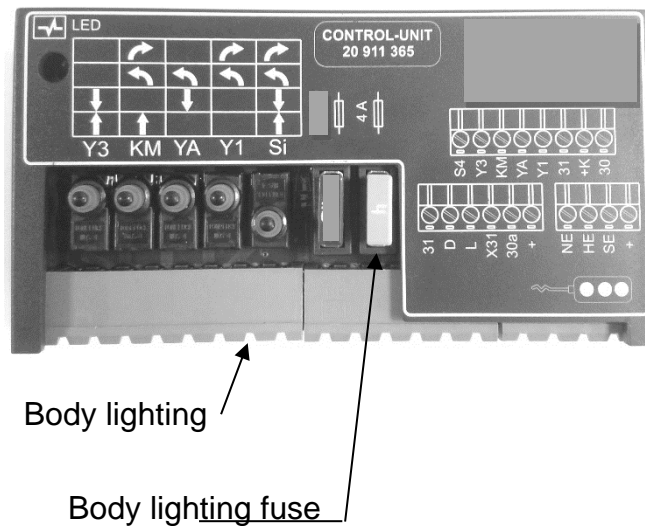
NOTICE

For the GPC 44 X-4, the power pack is installed with the control unit in the axle assembly, as shown in the drawing and photo. To operate the control unit, you must remove the cover on the right side of the axle assembly.

Option body lighting in series 11

The clamping strip located on the control unit with service switch can be used to connect the body lighting.

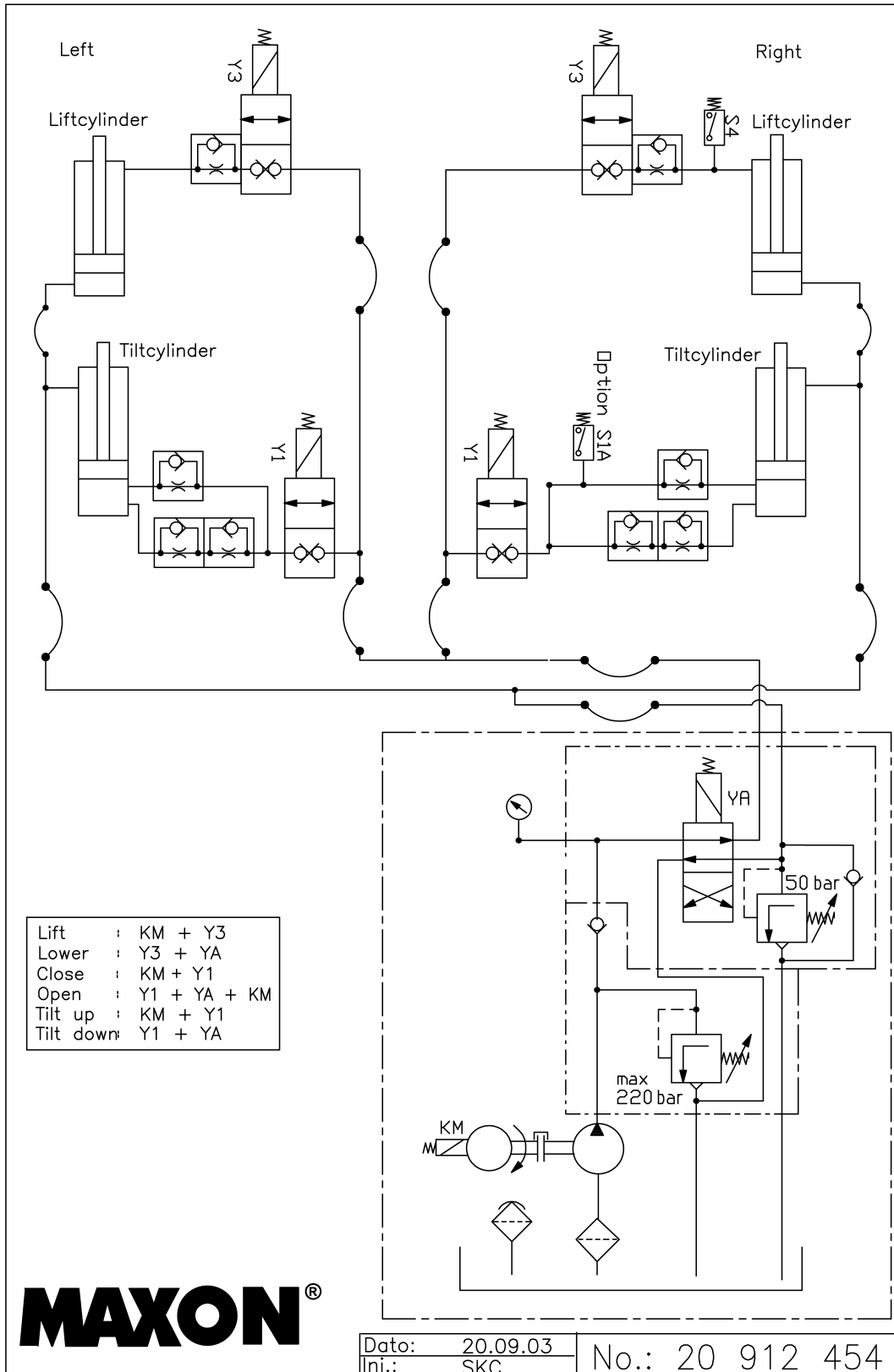
To connect the body lighting, connect the lightning cable on the clamp “K+” and the clamp “31” on the clamping strip or on chassis instead clamp “31”. It is turned on and off with the cabin switch together with the liftgate and is protected by a 4 Ampere fuse.



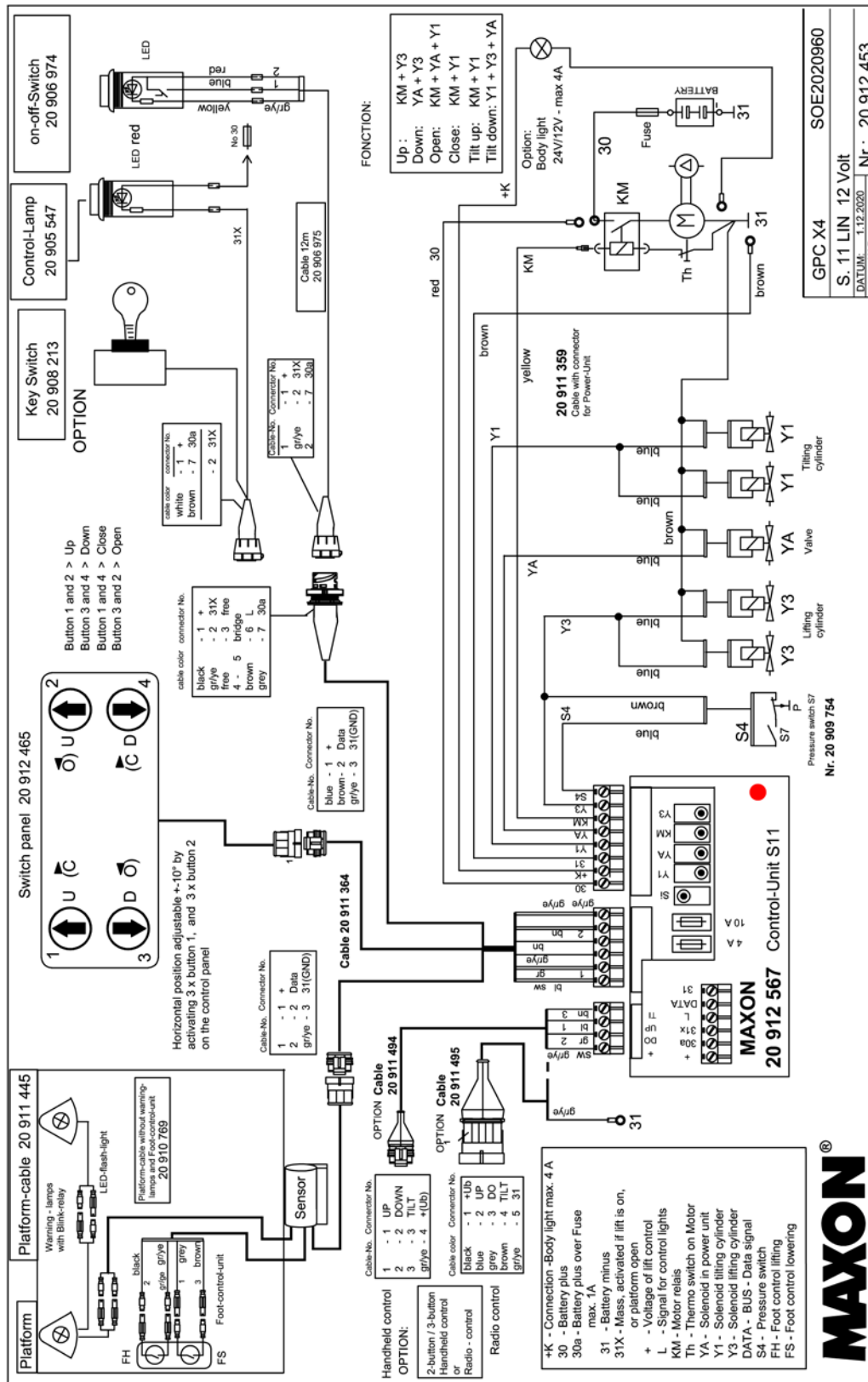
Fonction	Y3	KM	YA	Y1	Si
Lifting	•	•			•
Lowering	•		•		•
Open / tilting down		•	•	•	•
Closing / tilting up		•		•	•

Please respect the sequence, KM always last

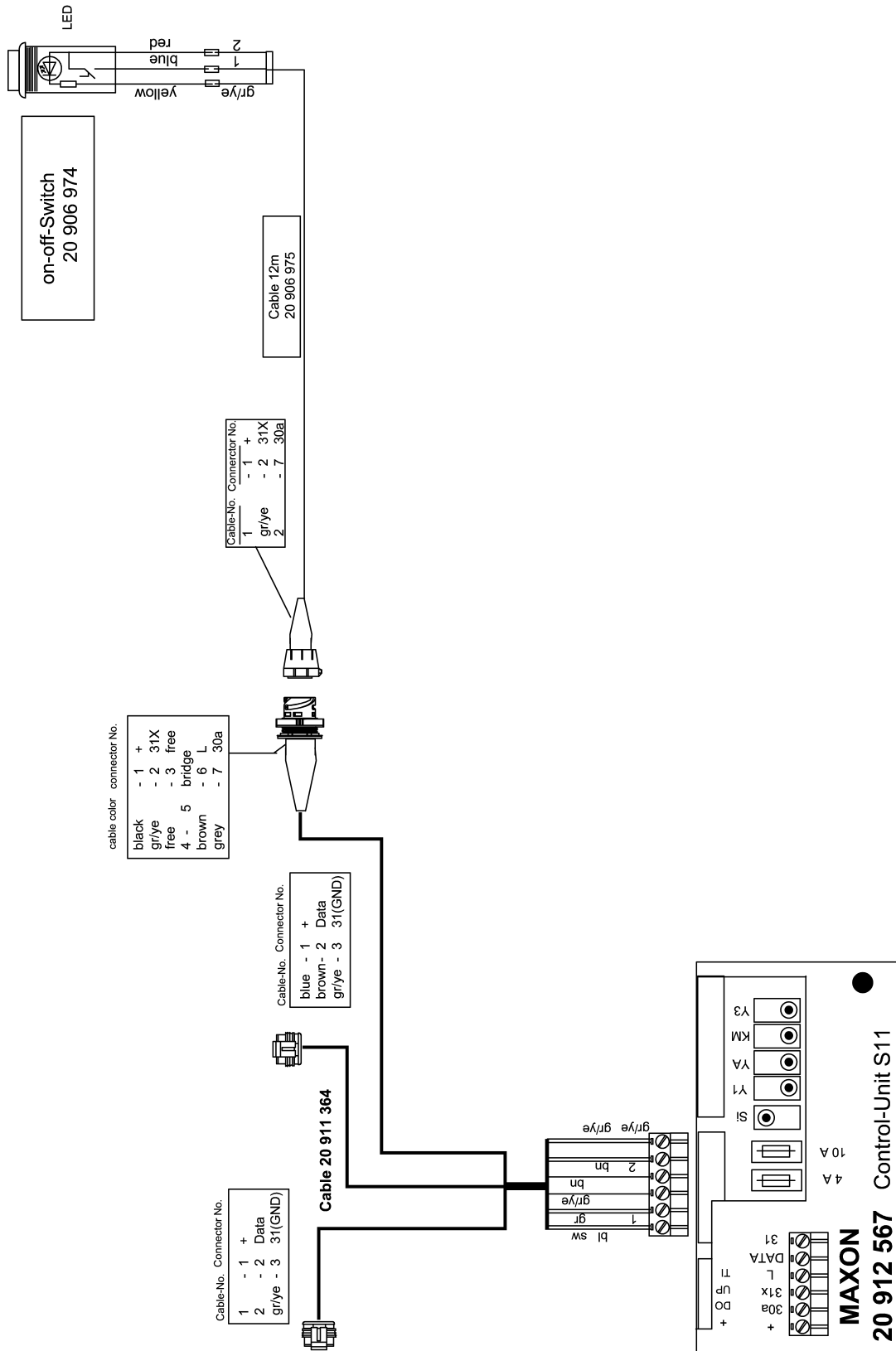
Hydraulic circuit diagram



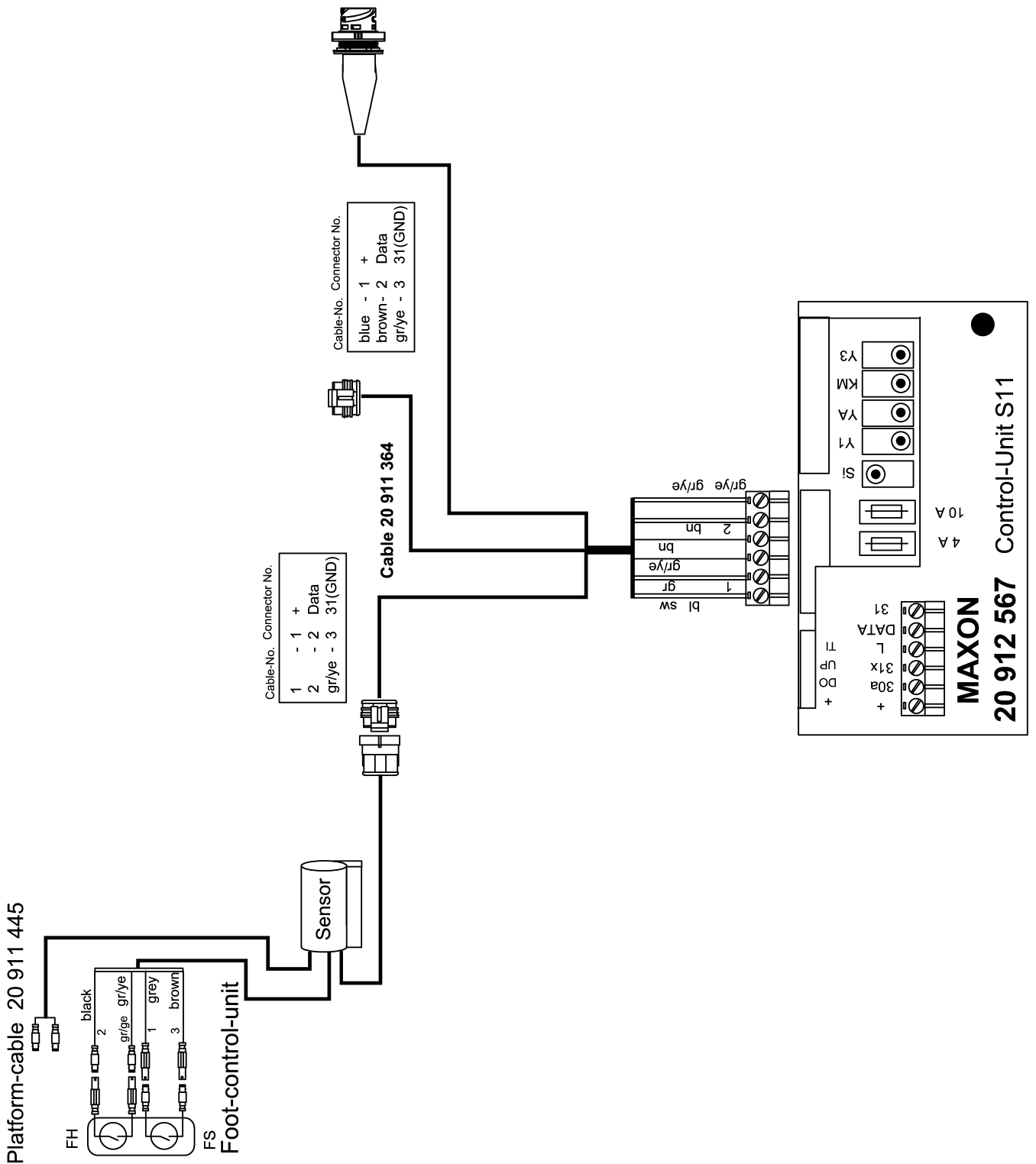
Electrical circuit diagram



On-Off-switch diagram

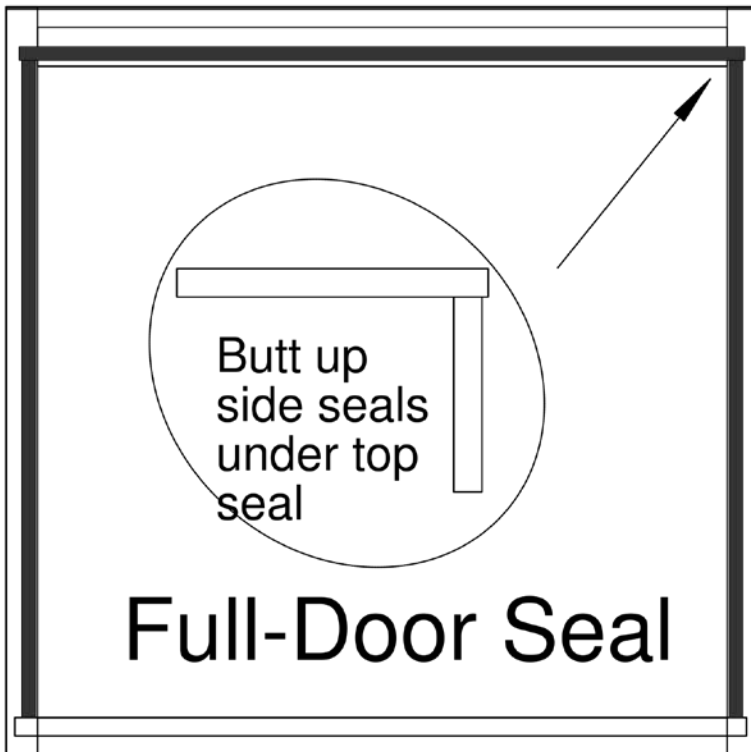


Optional food control diagram



Body Seal Kits

BODY SEAL KITS



Flip-Up Door kit
2 ea. 108" steel channels
2 ea. 108" side seals
1 ea Door Panel with
gas shocks and hardware

Full Door Seal Kit
3 ea. 108" steel channels
3 ea. 108" top and side seals

