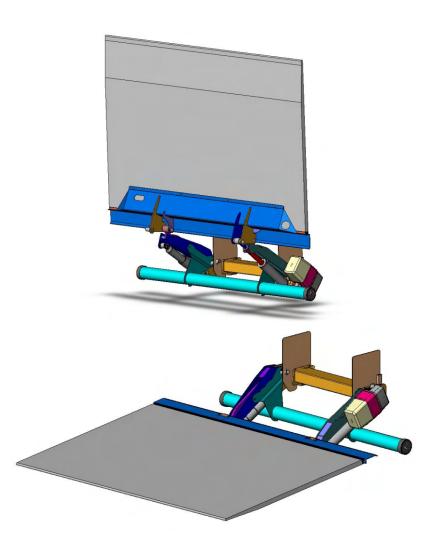
MAXON®

Cantilever GPC X1 Installation Manual



Cantilever
Series
GPC 22 X1
GPC 33 X1
GPC 44 X1
GPC 55 X1

very important next page

MAXON®
Lift CORP.

11921 Slauson Avenue. Santa Fe Springs, CA 90670 (800) 227 - 4116

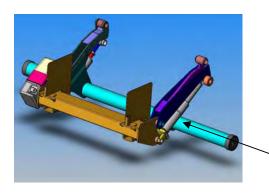




Very important!

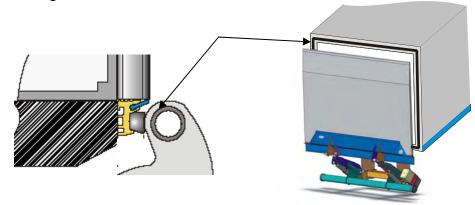
Caution!

Please follow these important steps before starting installation.



- 1. Read and fully understand complete installation manual.
- 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 9 and 10 of the installation manual.
- 3. The under run bar must be mounted before installing the liftgate to the vehicle.

The optional rear door seal kit if supplied with the liftgate must be installed prior to the installation of the gate. Please refer to Page 26 in the manual for seal kit mounting instructions.





The power pack was already filled with oil in the factory.

caution!

caution with transport!

do not lift at the power pack

no pressure or shocks do not use pry bars



Installation manual Document no.: S 20 906 972



Introduction

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!

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-Safety Precautions

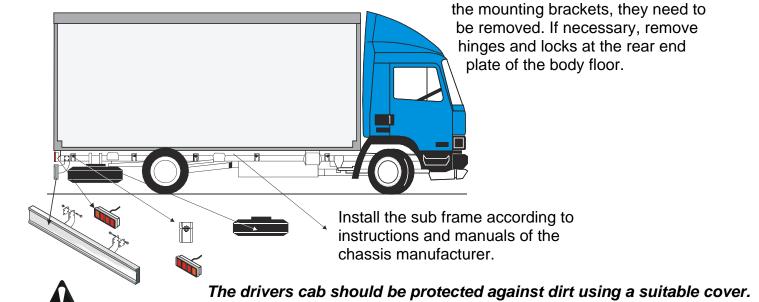
- Before installing, the battery of the vehicle needs to be disconnected. The vehicle needs to be secured against all unintentional shifting.
- The plugs for electronic systems as for example ABS needs to be pulled before welding.
 Fuel lines, air hoses of the brake system, and cables in the installation 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.



Installation Directions GPC 22 X1-GPC 33 X1-GPC 44 X1-GPC 55X1

Preparation of the Vehicle

Dismantle the under run 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



Warning

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.

Cutouts in Rear Sill

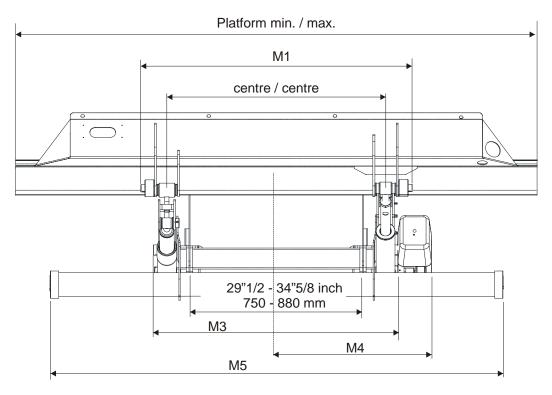
If the dimension of the rear sill (H2) in the area of the lift arms is more than H2, then openings need to be cut out according to our recommendations.

Recommendations for the rear sill cutouts to install the models GPC 22X1, 33X1 44X1, and

GPC 55X1 H2 **Table** Н3 inch H1 **H2 H3 H4** 750 - 880 mm **GPC** H1 H1 8 1/4 3 1/8 5 1/2 35 7/16 29"1/2 - 34"5/8 inch 22X1 **GPC** H4 3 1/8 11 3/8 5 1/2 35 7/16 33X1 **GPC** 13 3/8 5 5 1/2 35 7/16 44X1 **GPC** 5 1/2 35 7/16 11 3/8 3 1/8 55X1



Dimensions GPC

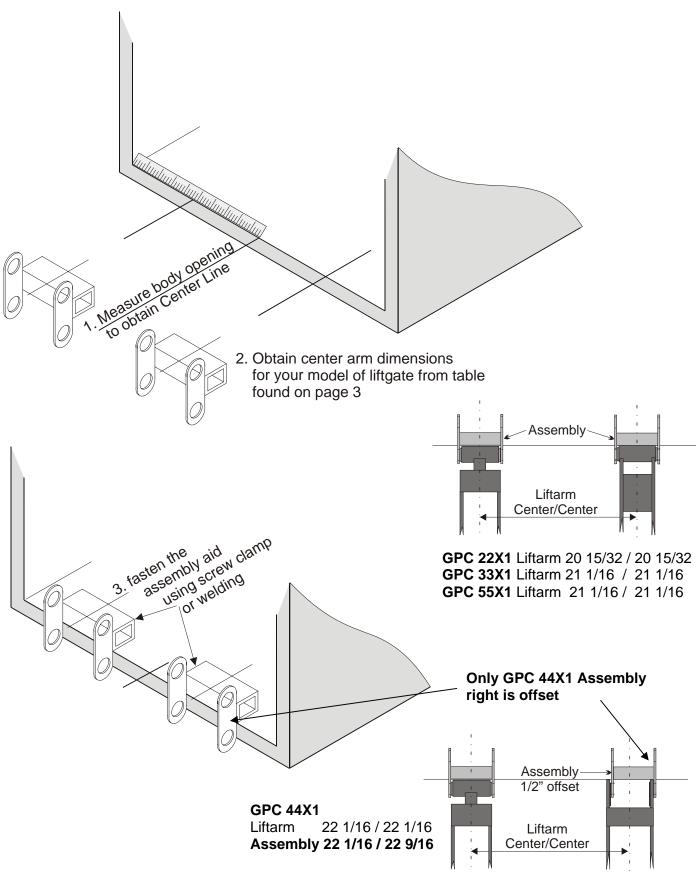


Model	inch/	Platform max/min	Lift Arm Center/Center	M1	max M3	max M4	M5
GPC 22X1	inch	101 9/16 / 76 3/4	40 15/16	51	47 7/16	34 1/16	84 5/8
GPC 33X1	inch	101 9/16 / 76 3/4	42 1/8	53 15/16	48 5/8	34 7/16	90 9/16
GPC 44X1	inch	101 9/16 / 76 3/4	44 1/8	57	51	34 5/8	90 9/16
GPC 44X1		Assembly 22 1/16	/ 22 9/16 (44 5/8)				
GPC 55 X1	inch	101 9/16 / 76 3/4	44 1/8	53 15/16	51	34 5/8	90 9/16

weights Platform weights total width x height **GPC 22X1** Platform 290 pounds 670 pounds 98 x 59 inch width x height **GPC 33X1** Platform 350 pounds 960 pounds 98 x 71 inch width x height **GPC 44X1** Platform 470 pounds 1205 pounds 92 x 85 inch width x height **GPC 44X1** Platform 495 pounds 1225 pounds 98 x 85 inch width x height **GPC 55X1** 1400 Platform 580 pounds pounds 98 x 85 inch



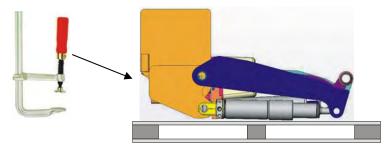
Placement of assembly aids.



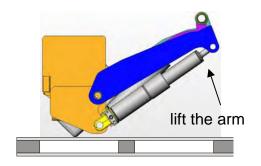


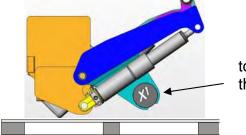
Assembly of the lifting gear

Install the mounting brackets loose, secure lifting machanism with Screw clamp, and connect the positive and ground cables at the battery. (see also Page 18)



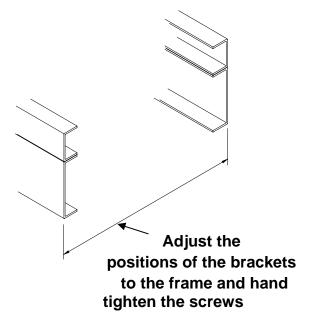
Lift up the Lift arms in order and to assemle the under run bar.

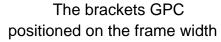


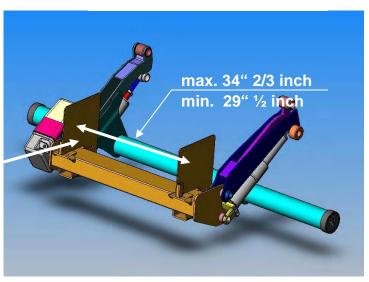


to assembly the under run bar

Measure the frame width of the vehicle.



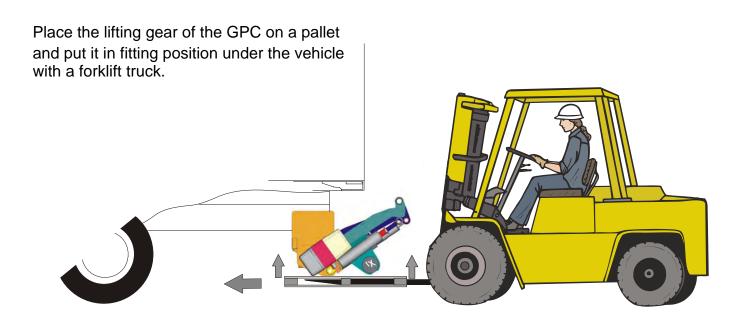


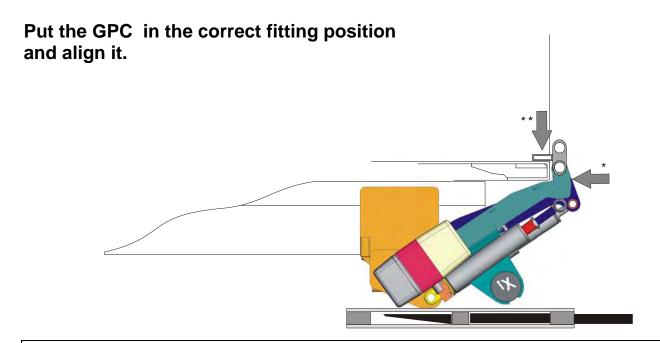


Before assembling the lifting gear, it is imperative that the screw (A) is loose. It will be tightened after adjusting the lifting gear. (Please refer to page 12 and 14)





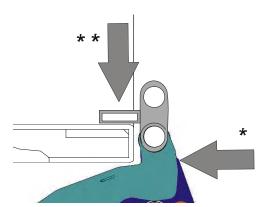




You will find all needed measurements on page 10 of these instructions.

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Position and pin both liftgate arms into the assembly brackets.

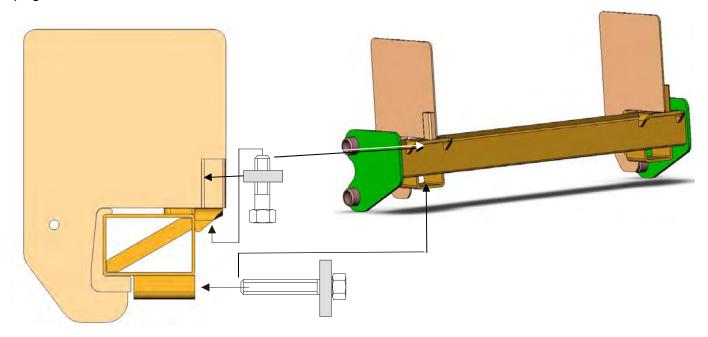


Press the lifting arms against the rear frame of the vehicle and secure them against unintentional movement.

Secure the assembly bracket with a weight or with clamps. It is essential that the bracket lies firmly on the vehicle floor.

Weld on the brackets at the vehicle frame, according to table at page 11.

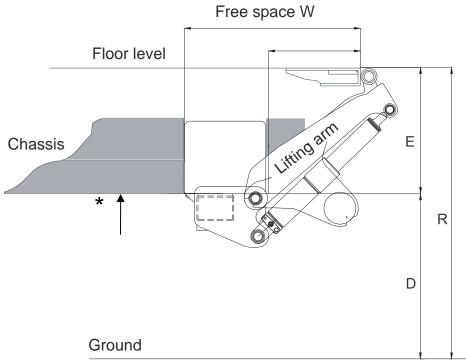
Secure the main beam by tightening the 4 screws according to the tightening torque table on page no. 22.



Tighten the screws according to the torque table



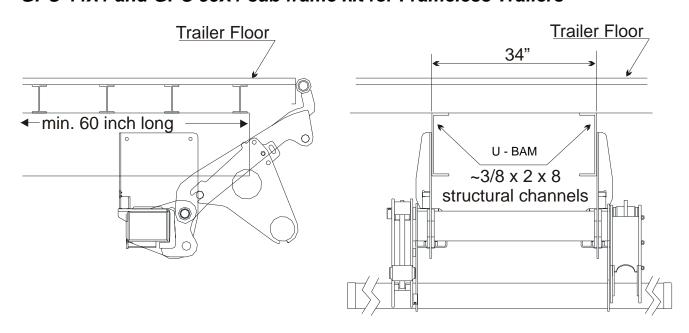
Assembly measurements



Stay always close to the measurement under the vehicle frame

Please refer to page 4 and 10 in the installation manual for correct mounting dimensions.

GPC 44X1 and GPC 55X1 sub frame kit for Frameless Trailers





Installation Chart GPC 22X1 - GPC 33X1- GPC 44X1 - GPC 55X1

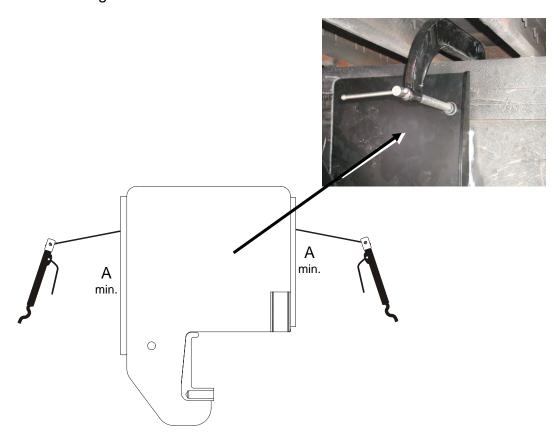
Model	(inch)	Length of the lift arm (inch) Liftgate	R max (inch) Vehicle	R min (inch) Vehicle	D from - to (inch) Top of main beam	E from - to (inch) Top of main beam	W from - to (inch) Space
GPC 22X1	(inch)	26 9/16	46 7/16	33 13/16	18 7/8 – 26 6/16	14 15/16 – 20 1/16	28 5/16 – 32 11/16
GPC 22X1	(inch)	29 1/2	51 3/16	39 3/4	19 11/16 – 27 15/16	20 1/6 – 23 1/4	30 1/8 – 33 7/16
GPC 33X1	(inch)	29 1/2	51 3/16	39 3/8	20 11/16 – 29 5/16	18 11/16 – 21 7/8	32 7/16 – 39 5/16
GPC 33X1	(inch)	34 7/16	56 5/16	46 9/16	25 13/16 – 30 1/2	20 11/16 - 25 13/16	35 3/16 – 40 1/2
GPC 44X1	(inch)	29 1/2	51 3/16	39 3/8	20 11/16 – 29 5/16	18 11/16 – 21 7/8	32 7/16 – 39 5/16
GPC 44X1	(inch)	34 7/16	56 5/16	46 9/16	25 13/16 – 30 1/2	20 11/16 – 25 13/16	35 3/16 – 40 1/2
GPC 55X1	(inch)	34 7/16	56 5/16	46 9/16	25 13/16 – 30 1/2	20 11/16 – 25 13/16	35 3/16 – 40 1/2

If there is not enough space, please contact the sales department. The sales department 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.

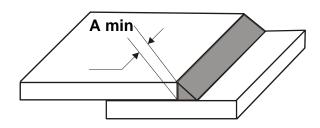


Weld requirements

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



Welds on both sides of the mounting bracket in the whole height of the vehicle frame.



	GPC 22X1	GPC 33X1	GPC 44X1	GPC 55X1
A min. (inch)	1/8	3/16	1/4	5/16

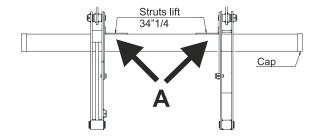




Extra Bracket for Reinforcement

Information for *GPC 44X1* and GPC 55X1 with a lift arm length of *34"1/4 inch*.

After the adjustment, the two struts supplied with the installation material must be installed; drill holes; tighten the screws.



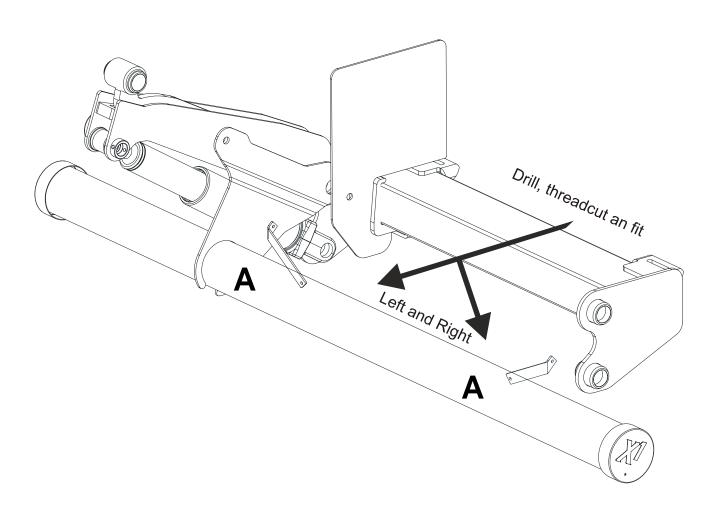
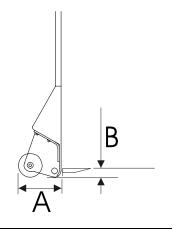




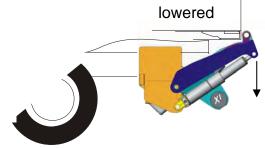
Chart Platform Measurements

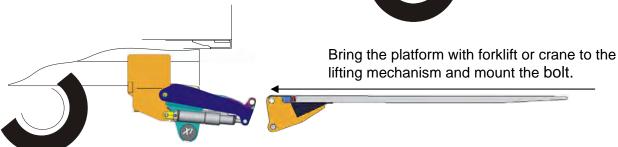
Model	Α	В
GPC 22X1 (inch)	9	2 5/16
GPC 33X1 (inch)	9	2 9/16
GPC 44X1 (inch)	9	2 9/16
GPC 55X1 (inch)	10 5/8	2 9/16



Installation of the platform

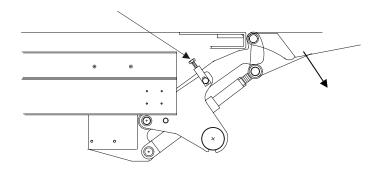
The lifting gear will be lowered far enough so that the installation of the platform is possible. Grease bearing on lift arms and the bearing heads of the tilting cylinder with the special installation grease; put on the O-rings; place the lift arms and the tilting cylinder; install and secure the bolts.





Adjustment of the platform to the vehicle bed:

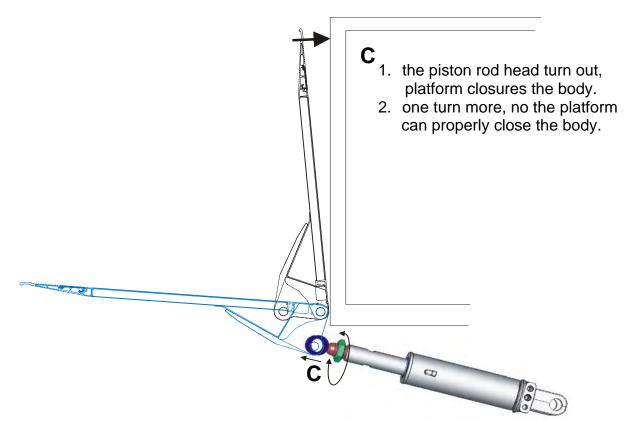
Move the lifting gear with the opened platform hydraulically behind the body sill. For the adjustment, the lift arms must not touch the body sill. Between the rear frame and lift arms, There should be a space of 3/8" between the body sill and the liftarms. With the adjusting screws, the lifting gear will be adjusted until the rear frame and the platform are parallel. After the adjustment, both screws of the underrun bar fastening are to be tightened.



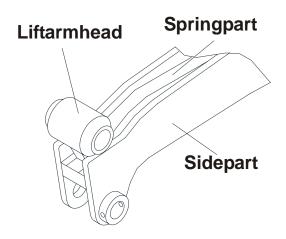


Adjustment of the platform for installation in a closed position:

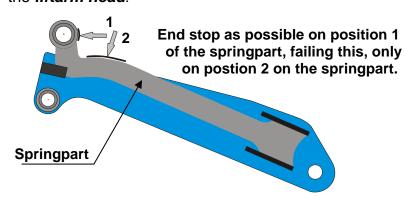
Close the platform hydraulically. The cylinder needs to reach its end position when the platform slightly touches the body sill or is set at 90° against the bed of the vehicle. Now rotate the rod eye one more turn out of the cylinder rod; secure it. Now the platform can properly close the body.



Stop for liftarm on body (head of liftarm)



Is this not possible due to the fitting situation, it must be secured that only the *spring part* of the lifting arm (the part in the middle) are touching the body, and the *side parts* can move freely against the *liftarm head*.

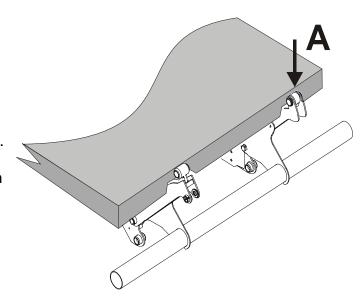


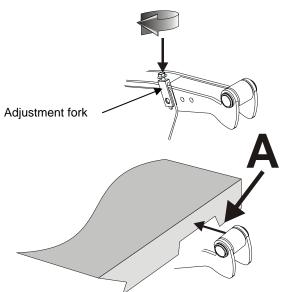
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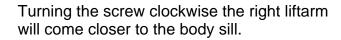
Function of the adjustment fork

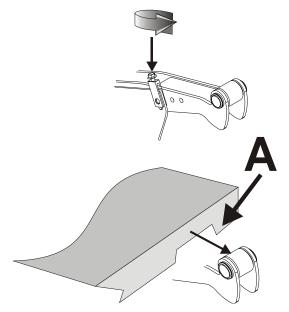
After the installation of the liftgate the two arms must touch the body sill at the same time, and must be touching the body sill also all the time when platform is normally loaded.

This can be done with the adjustment fork on the right lift arm if an adjustment is necessary.







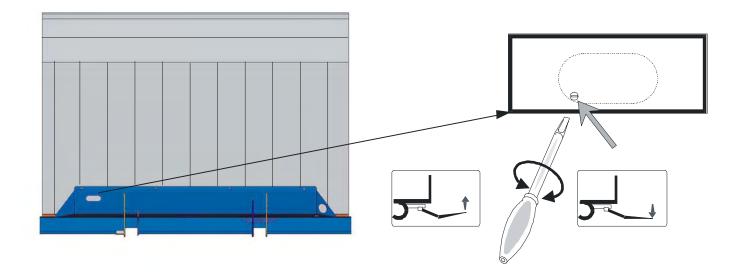


Turning counter-clockwise the right liftarm will stay further away from the body sill.



Adjustment of the Platform tilting to horizontal

Turn the adjusting screw clockwise; the platform will switch off earlier during the next tilting. The tip of the platform is pointed downwards. Turn the adjusting screw counter-clockwise; the tip of the platform is pointed upwards. The platform will switch off later during the next tilting.



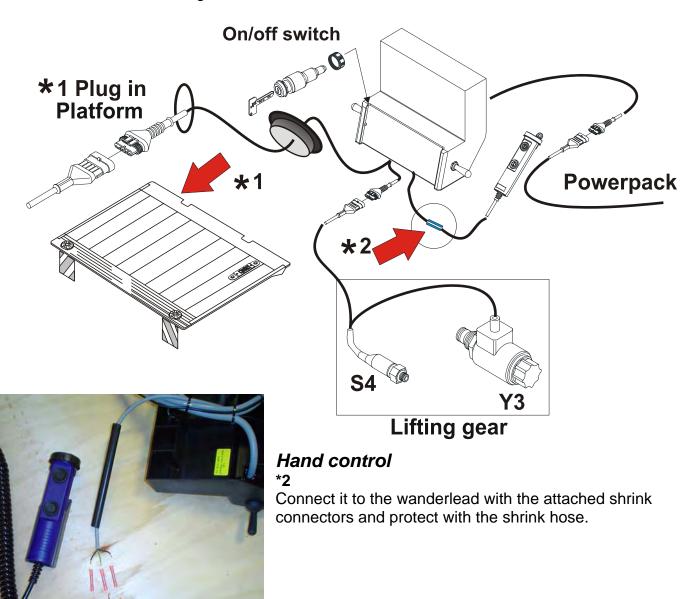


Assembly of electrical devices



Caution!

All operations of the tail lift must only be performed if the battery cables are correctly attached to it, and if there is enough tension available. Never use a battery charger or a starting device, as this can result in damage to the tail lift motor.



Cable to Platform

Lead the cable coming out of the platform along the lifting arm and connect it to the flat plug coming out of the hand control box.

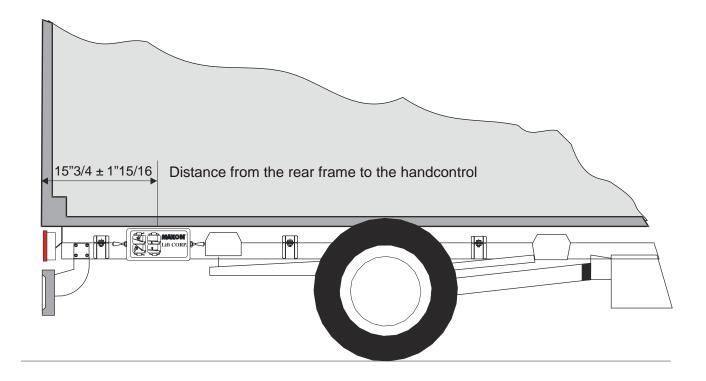
Please secure all cables with the delivered looms, to exclude pinching or scrubbing.



Assembly of the hand control box

The hand control box is assembled and connected in the factory. It is positioned so that the total surface of the platform can be seen while operating the device.

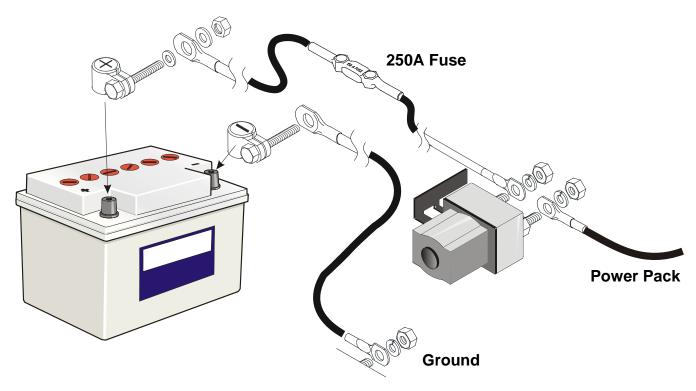
The distance should be 15" 3/4 inch plus minus 1" 15/16 inch





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.

Battery capacity

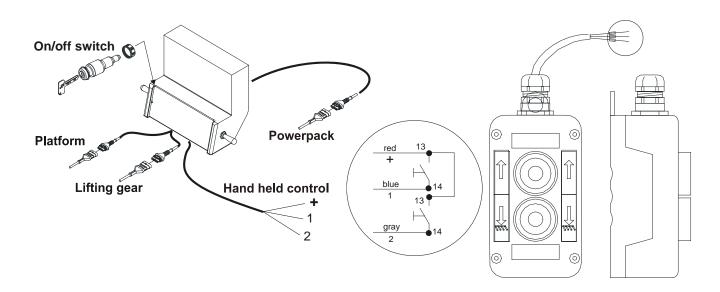
Lift capacity	Up to	750 kg 1655 lbs.	Up to	1500 kg 3300 lbs.	Up to	2500 kg 5500 lbs
	12V : 1 x 12V 88 Ah 24V : 2 x 12V 66 Ah		12 V : 1 x 12V 143 Ah 24 V : 2 x 12V 110 Ah		24V : 2 x 12V 143 Ah	
Battery size				Group 31		

Please connect the power unit plus and ground cable directly on the battery.

The guidelines of the vehicle manufacturer must be followed

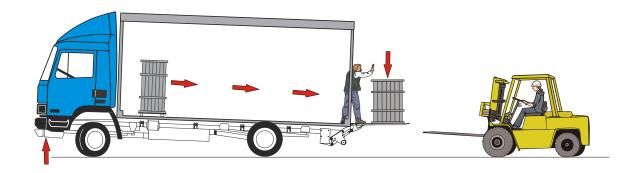


Handheld Control box



Caution sticker "secure the load"

This sticker is not included in the delivery of the tail lift. 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 an 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.





First operation of the Cantilever Gate

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

Hydraulic oil - recommendations

ISO 32 HYDRAULIC OIL		ISO 15	HYDRAULIC OIL	ISO-10 OR MIL-H-5606		
				Hydraulic Fluid		
AMSOIL	AWH-05	AMSOIL	AWF-05	AMSOIL	N/A	
CHEVRON	HIPERSYN 32	CHEVRON	FLUID A, AW-MV-15	CHEVRON	FLUID A, FLUID G	
KENDALL	GOLDEN MV	KENDALL	GLACIAL BLU	KENDALL	GLACIAL BLU	
SHELL	TELLUS T-32	SHELL	TELLUS T-15	SHELL	AEROSHELL FLUID-41	
EXXON	UNIVIS N-32	EXXON	UNIVIS HVI-1	EXXON	UNIVIS HVI-13	
MOBIL	DTE-13M, DTE-24,	MOBIL	DTE-11M	MOBIL	AERO HFA	
	HYDRAULIC OIL-13				;	

Painting the lifting gear

The lifting gear is delivered from the factory treated with black epoxy powder. If another colour is wished, this has to be done by the bodybuilding company. (please note that the powder must be abraded prior to painting). Please note that the black piston rods must be covered before painting. Remove all rests of paint and tape before operating the cylinders, otherwise you will damage the seals, which is also a warrabnty exclusion.

Operating sticker

Stick the operating label to the control box

Type label

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

Note in the test book

In the test book, the part "check before first operation" must be filled out and signed by a skilled person

Check of operating speeds

Vertical speed

The 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.

Please call Maxon Tech Service if your liftgate is experiencing a problem with operating speeds



Tilting speed

The angle speed while tilting must not exceed 4°/second. The plattform tilting must be limited to 10°

Load test

Static test

Drive the plattform horizontally between the vehicle floor and the ground. Put a test gauge up to 125% of the nominal lift capacity on the platform, at the distance given by the load diagram. The distance is marked permanently on the plattform. Within 15 minutes, the lift must not lower more than 15 mm or tilt more than 2°

The assembler must check the lift for any deformation after this test.

Dynamical 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. CAUTION: 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 statical and dynamical tests, please check the hydrauli system for leaks.

Test against overloading

This test is made to ensure that the device can not lift a load greater than 125% of the nominal capacity of the taillift

Test of security devices

Drive all functions to their end, until the security devices are sollicitated.



Torque table for all supplied and installed screws on Maxon liftgates

Screw Size	Torqu		Screw Connections	To	tening rque
8.8	in ft.lb	/ Nm		in ft.lb	/ Nm
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			

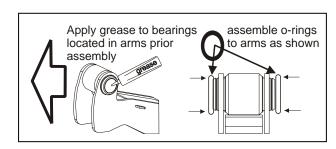
Capacity Motor and Pump Motor 12 Volt

GPC 22	2 kW	1,25 cc
GPC 33	2 kW	2 cc
GPC 44	2 kW	2 cc
GPC 55	2 kW	2 cc

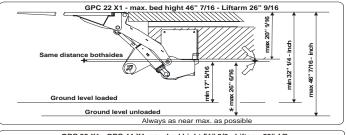
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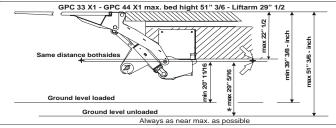
Decals

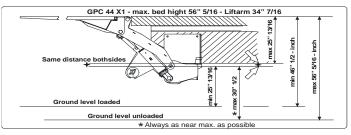
These Decals should be read and completely understood before operating the unit. They should also be kept clean and readable at all times. If any decals should become detached from the vehicles, or defaced, it must be replaced. Free replacement are available from: MAXON Lift Corp., Parts Department.

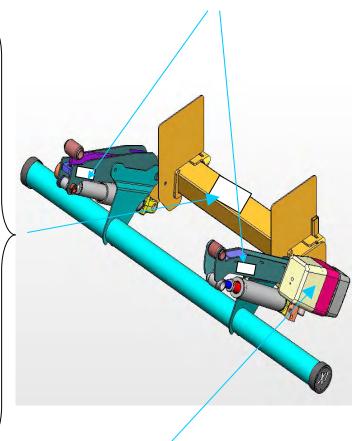


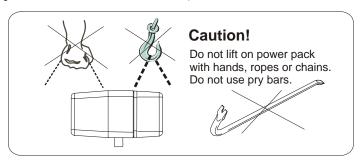
max. bed hight













GPC 44X1 GPC 22X1 GPC 33X1

THE MAXIMUM CAPACITY OF THIS LIFT IS

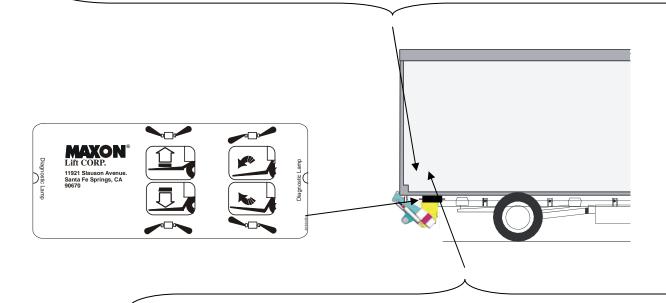
2200 POUNDS

THE MAXIMUM CAPACITY OF THIS LIFT IS

3300 POUNDS

THE MAXIMUM CAPACITY OF THIS LIFT IS

4400 POUNDS



CAUTION STAND CLEAR WHEN OPERATING



TILT THE PLATFORM TO LEVEL POSITION PRIOR TO RAISING

ALL lift gate 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.

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



- Improper operation of this Lift can result in serious personal injury. Do not operate unless you have been properly instructed and have read, an 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 beforeusing
- 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 n corrected
- Do not overload the Lift. The load limit is based on evenly distributed ■ 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 there is followed by the place the place the place the place the place of the place the place the place the place the place the place of the place t
- 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 wher the liftgate is operated.
- the littgate is operated.

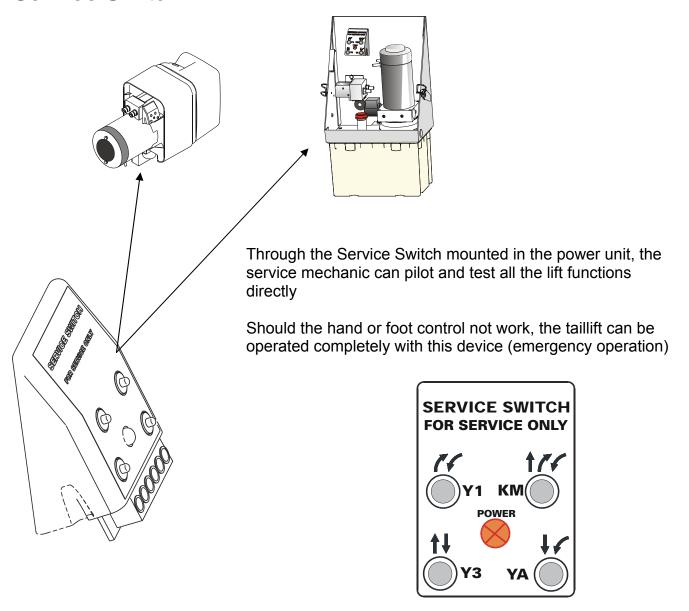
 If a helper is riding the Platform with you, make sure you are both doing so safely and that you are not in danger of coming in contact with any moving or potentially moving obstacles. USE GOOD COMMON SENSE. If load appears to be unsafe, do not lift or lower it.

MAXON LIFT CORP.

PART NO. 264081



Service Switch



Function	YA	Y1	Y3	KM
Power is green		•		
Lift			•	•
Lower	•		•	
Open /tilt down	•	•		•
Close / tilt up		•		•

Please respect the sequence, KM always last

Body Seal Kit Parts list26 Rubber-profil 20 840 321 118" 2 Rail (Alu) 20 840 542 102" 3 Rubber-profile 20 904 899 98" 4 Alu-profile 98" 20 905 044 5 End stop 6" wide 20 905 047 2 pieces Bolt and nut M10 or 3/8" 4 pieces M8 or 5/16" Bolt and nut 3 pieces * not in scope of delivery 1" 21/32 Turn the end stop 180° for GPC 22 to 33 or GPC 44 **MAXON**® GPC GPC 22 33 Lift CORP. 11921 Slauson Avenue. Santa Fe Springs, CA 90670 (800) 227 - 4116

