

74584TL

USER MANUAL

Operator & safety instructions

Inspection & maintenance instructions

USER MANUAL IN ORIGINAL

This manual must be kept in the glove
compartment in the truck at which
the tail lift is installed

2019-09-03



ZEPRO

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1. Value document

The user manual must always be kept in the vehicle:

- in order to check validity at CE marking
- in order to prove possible warranty.
- in order to overview service and changes through the years.

If the number of pages for check and action taken isn't enough, copies can be made for addition to this manual.

Remark!

Do not perform work on the lift without keeping a written record within this document.

WARNING

When servicing and repairing, no changes to the tail lift are permitted and only original spare parts may be used.

NOTE!

Non-compliance with the above is only permitted with expressed written permission from the manufacturer. If this is not followed the CE marking ceases to be valid and hence the responsibility for the safety level of the product is transferred to those who have carried out the change. In order for the safety requirements to be fulfilled it is also necessary to use the tail lift according to this user manual.

2. Product approval

Declaration of conformity, manufacturer

ORIGINAL (according to 2006/42 / EC, Annex 2A)

We: ZEPRO, Z-Lyften Produktion AB
Allévägen 4, 844 41 Bispgården, SWEDEN

hereby declares that the tail lift

Type:	
Place for sticker	
Serial no:	

Complies with all applicable provisions of:

Machinery Directive 2006 / 42 / EC

also complies with all applicable provisions of:

EMC Directive 2004 / 108 / EC

Design and manufacture Standard EN 1756-1

Technical file in accordance with Directive 2006/42 / EC, Annex VII A is compiled by:

Name: Tomas Blomberg

Address: ZEPRO, Z-Lyften Produktion AB
Allévägen 4, 844 41 Bispgården,

SWEDEN

This declaration is drawn up by:

Namn: Tomas Blomberg

Position: Factory Manager **Date:**

Bispgården, Sweden



Declaration of conformity, installation

The installer certifies at own responsibility that the tail lift as identifies at page 6 in this manual has been installed according to instructions from Zepro and that post installation check has been performed. In addition all vehicle manufacturer guidelines for auxiliary equipment have been adhered to.

When Zepros installation instructions has been followed and possible modifications is approved by Zepro, this document is a confirmation that both the tail lift and installation confirms to the following directive.

Machinery Directive 2006 / 42 / EC

The installer certifies that:

- installation has been carried out according to Zepros instructions.
- post installation check has been performed.

.....
Installers signature

.....
Date of installation

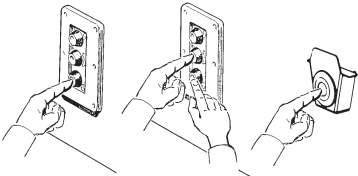
Installers stamp

Post installation checks

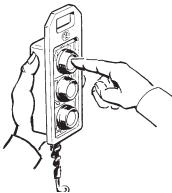
The following checks should be made to ensure that the tail lift has been correctly and safely installed. These checks should be carried out by the installer after the tail lift and vehicle have been prepared by him for regular operation.

Checks (2, 3, 4, 5, 9, 11 och 15 if available).

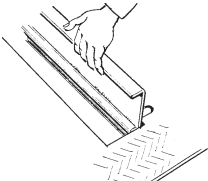
1.	Lift, tilt and lowering with fixed control unit.
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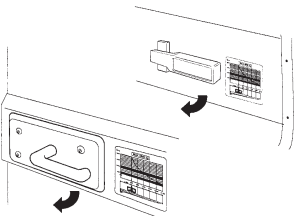
2.	Lift, tilt and lowering with other control unit(s). Option.
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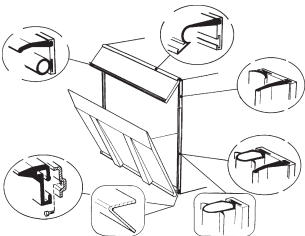
3.	Function and possible worn bearings on roll-stop. Option.
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4.	Function of locking mechanism. Option
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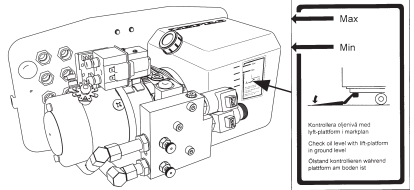
5.	Sealing strips and horizontal guide. Option.
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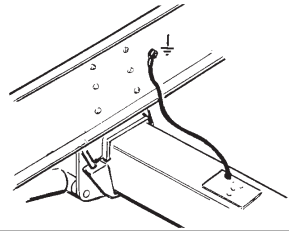
6.	Oil leakage at hydraulic hoses, couplings and hydraulic units.
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Oil leakage at hydraulic hoses, couplings and hydraulic units.

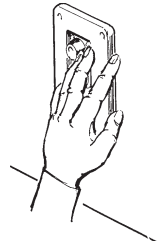
Oil level, see instructions at hydraulic unit.



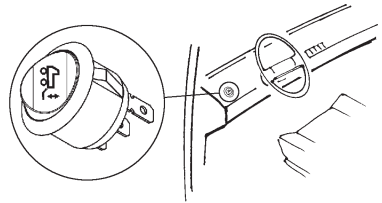
Ground connection between tail lift and vehicle frame. See also manufacturers electric instructions.



Function of control unit heating element. Option.

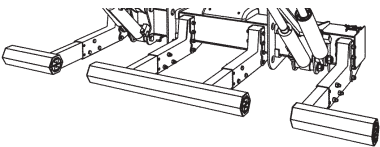


Function of drivers main switch.

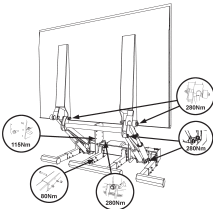


Post installation checks

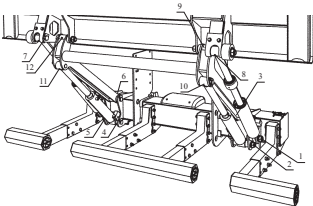
11.	Under run bar. Tightness and mounting position with regard to statutory measures.
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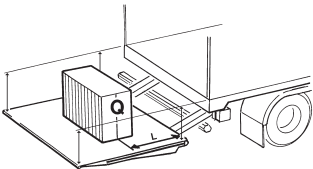
12.	Tightness at all bolts at the tail lift.
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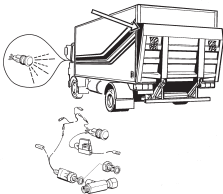
13.	Greasing (see page 50).
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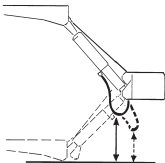
14.	Load testing the tail lift (see instruction in installation instruction).
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15.	Test of safety functions and possible accessory (see instruction in installation instruction).
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16.	Free movement of hydraulic hoses.
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Post installation check
Possible notes and action taken

Pos	Action taken

3. Safety instructions

General safety

This manual contains useful information about your Zepro lift: Technical description of equipment and function of these, technical safeguard, safety instructions for operators, everything according to: **En 1756-1: English standard: Vehicles - Safety requirements for tail lifts for mounting on wheeled vehicles.**

The manual must be kept in the vehicle on which the tail lift is placed and be used as a guide for safety and maneuvering.

For safety of the operator and third party must the tail lift only be used by educated persons who can and understand the content of this manual. Operators which hasn't the above knowledge constitute a big risk for them selves, assistant at loading and unloading, and third party.

A tail lift is used to lift or lower heavy load, this may cause injuries if the safety instruction in this manual isn't followed.

Operator

Before allowing the operator to use the lift he should be thoroughly conversant with the lift's functions and usage according to the following:

1. During any phase of operation the lift must never, either whilst stationary or during up or down movements, be loaded with more than the given maximum for that particular lift. See loading diagram.
2. The centre of gravity of the maximum load should not be placed further back than the loading diagram for the specific lift admits.
3. Nobody but the operator must operate the lift.
4. The lowering and lifting speed must not exceed 0.15 m per second = 1.5m per 10 seconds. The tilt down speed may not exceed 10°/second from transport position to work position.
5. Beware of the risk of trapping parts of the body between lift and truck body when lifting and closing. Keep feet clear from the front edge of the platform.
6. Carry out a daily control and always check the lift's parts and correct function after accidents.

NOTE!

It is the employers responsibility to ensure that the operator is conversant with all safety risks associated with the use of the lift, according to Directive 2009/104 / EC. The operators attention should also be drawn to the permitted loads allowed.



WARNING

Don't use a damaged lift. Contact authorized workshop immediately

General safety

Pay attention to the warning signs on the tail lift and the warnings contained in this instruction.

NOTE!

Ensure that the area under and around the tail lift is empty and stays empty as long as the tail lift is in use.

WARNING

Only use the tail lift if the vehicle is parked and the handbrake is tightened so you are certain that the vehicle doesn't move during the use.

NOTE!

Only one person is allowed to operate the tail lift at time.

WARNING

The vehicle should be positioned so that operation of the tailgate lift can take place without danger from moving traffic

NOTE!

Only educated personnel is allowed to use the lift.

WARNING

Don't let heavy loads fall down at the platform.

NOTE!

In order to operate the tail lift, only use control units that's approved by Zepro.

WARNING

Before the platform lowers or lifts you must control and secure the load. All to minimize the risk of falling load.

NOTE!

Always have full overseen of the working area when the lift is in use.

WARNING

Despite the tail lift is equipped with a non-slip surface, precaution must be taken at locomotion. Zepro recommends to use non-slip footwear according to EN ISO 20345, 20346 and 20347.

NOTE!

Only use spare parts that's approved by Zepro.

WARNING

Do not drive the vehicle if the platform is loaded or open.

Restricted area of use

A tail lift has the sole purpose of aiding the loading and unloading of vehicles, thus, preventing the operator from making unnecessary physical efforts.

Under no circumstances must a tail lift be used to scoop objects or material up from the ground or drive objects in the ground using the platform or other parts of the tail lift as driving tools.

I.E. the platform or other parts of the lift are't allowed to use as working tool for other than intended use.

A tail lift is only meant to be used when the function is satisfactory. If there is any doubt concerning the tail lifts functionality call for or visit an authorized workshop.

Safety for third party

When the tail lift is in use the operator must be aware of that all in nearby risks injuries.

The tail lift is delivered with a working area decal as clearly show at which distance other vehicles is allowed to park.

Ensure that other vehicles doesn't park closer than 5 m from the edge of the body.

Pay special attention to that no kids or animals set foot on working area when the tail lift is in use.

Instability in heavy loads can give injuries at people.

The working area must always be free from persons and things. Al to avoid damages if loads should fall of.

Uneducated personnel can never be allowed to operate the tail lift.

Working area

The control units are located in such a way, so they will give:

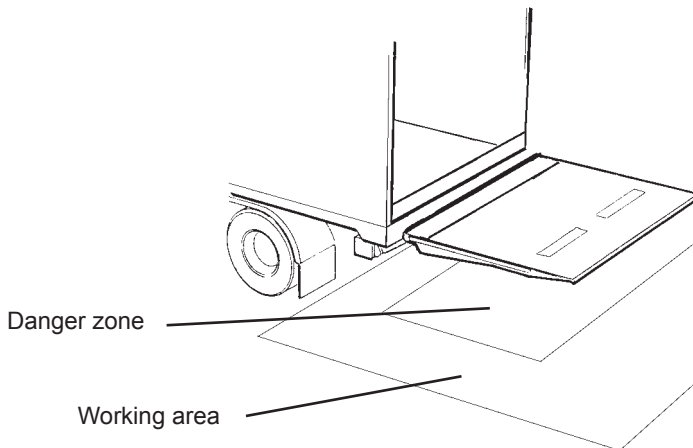
- A good oversee over the working area and the surroundings.
- A safe position in proportion to passing traffic.

NB!

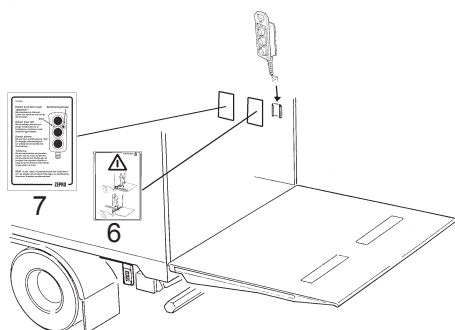
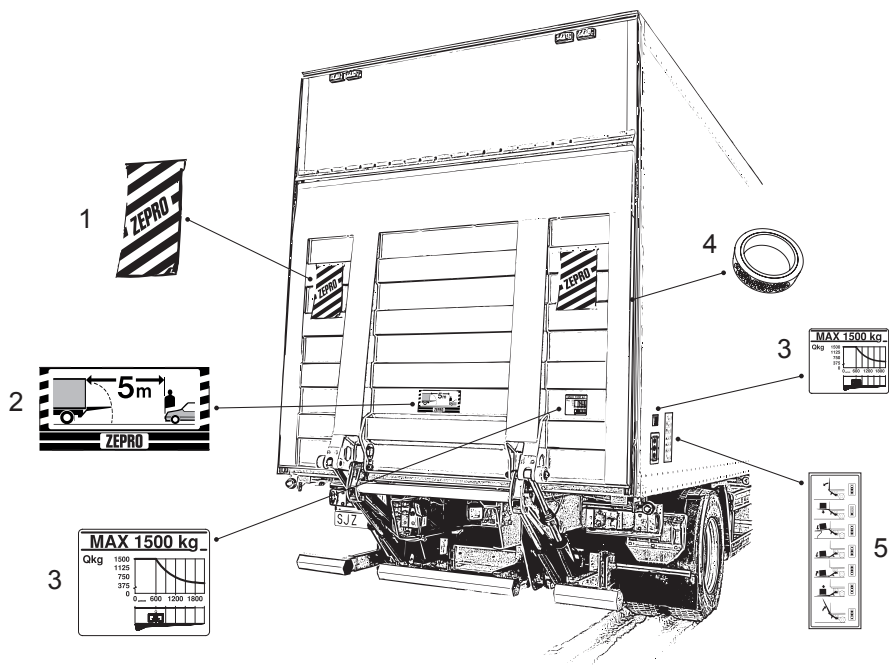
Dangerzone: The area in which the platform is moving. This area may under no circumstances set foot on when the tail lift is in use.

Working area: The area outside the platform where the operator may stand when the lift is in use. If anyone else than the operator set foot on this area when the tail lift is in use must all up or down movement cease immediately.

Area outside working area: The operator must be observant at the surroundings in order to detect potential danger.



Warning and information signs

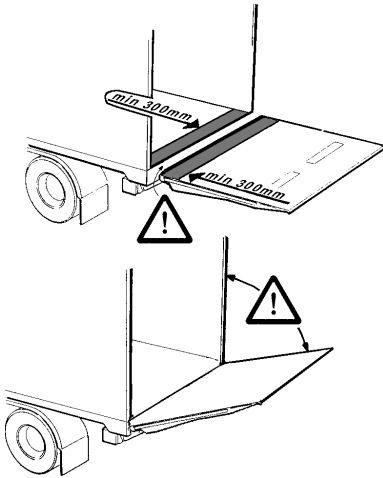


1. Warning flag
2. Working area
3. Loading diagram
4. Warning tape
5. Operating instruction
6. Danger of crushing
7. **(Optional)** Function 3-button serial cable, with deactivation button

Technical safety

WARNING

The biggest risk for snips and catch injuries is in the danger zone between the platform and body floor when the platform rises to body floor level and when the platform closes against the body. A person who rides with the goods at the platform must keep back feet and other parts of the body from this danger zone.



Your ZEPRO tail lift is equipped with safety devices to prevent accidents.

Electric safety

Electric safety valves are one-way valves which allow oil to flow into the cylinders but not out from them, provided that all the control buttons are released and no current activates the magnets on the valves. In the event of a leakage, the platform is supported by the oil which is trapped securely in the cylinder by the safety valve. ZEPRO supplies one such valve on the tilt cylinder circuit and one on lift cylinder circuit so that both circuits are protected.

NOTE! Some safety valves require that the current activates the magnet at both the inflow and outflow from the cylinder.

Mechanical safety valves

Unlike electrical safety valves as protect at leakage, these protect the tail lift against plummeting at hose breakage.

Control unit

3-button control + turn switch is used at all opening/down tilting/lowering and closing/up tilting/lifting movements to avoid catch injuries. This means that the turn switch must be activated together with normal buttons in order to the above movement is to be carried out.

Warning flags & warning light

To mark "platform out" there is warning flags and warning lights at platforms, mounted as alerts the surroundings during the tail lifts movement. The flags have reflectors to enable good visibility at all times, thus ensuring safe work in the evenings and nights.

Main fuse

In order to prevent electrical overload of circuits and the consequent risk of fire a **150A (24V) or 250A (12V)** has been integrated into the electrical circuit.

WARNING

The electrical safety valve locks the hydraulic oil inside the cylinder as long as its magnet is not activated by a control button.

Hydraulic supply system safety

The hydraulic system on Zepro tail lifts operates under high pressure (up to 200 bar) and is to be maintained continuously if it is to function reliably and safely. All hydraulic units are equipped with an overflow valve that prevents the lift from being raised or tilted with an excess load.

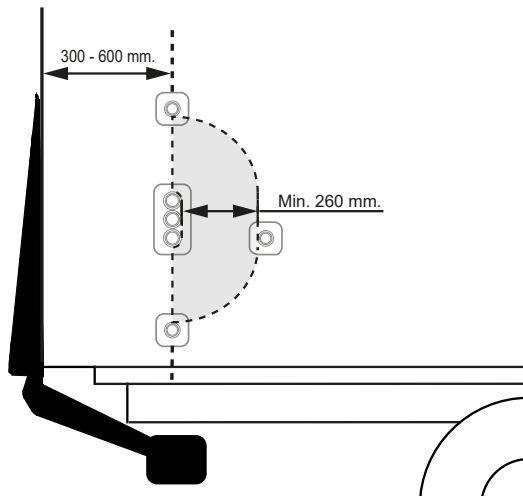
NB!

No changes or adjustments of parts to the hydraulic supply system may be made by the operator. If any of the above is required, it should be done by an authorised workshop.

User safety

The lift is equipped with controllers. The controllers must be approved by ZEPRO and be installed on the truck at the same time as the lift.

Controllers can also be installed on fixed brackets below the body.

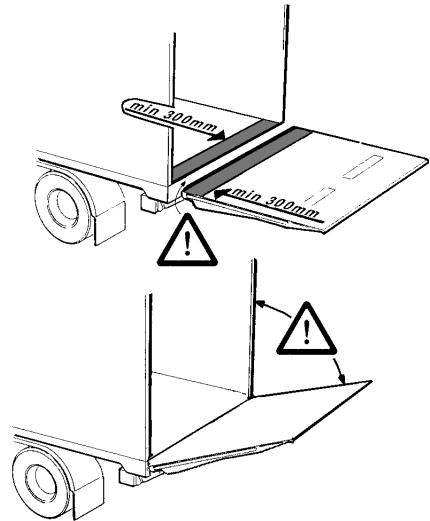


User Safety

On lifts with fixed controllers and extra button, closing and in many cases opening (depending on the lift model) can only be performed using them.

In order to avoid crush injuries, the operator must always be standing in such a way that takes into account the clamping area between platform and vehicle body.

The **mobile controller** can be used from inside the vehicle body and on the platform, provided the operator is at least 300 mm from the rear edge of the vehicle body/front edge of the platform in order to avoid crush injuries.

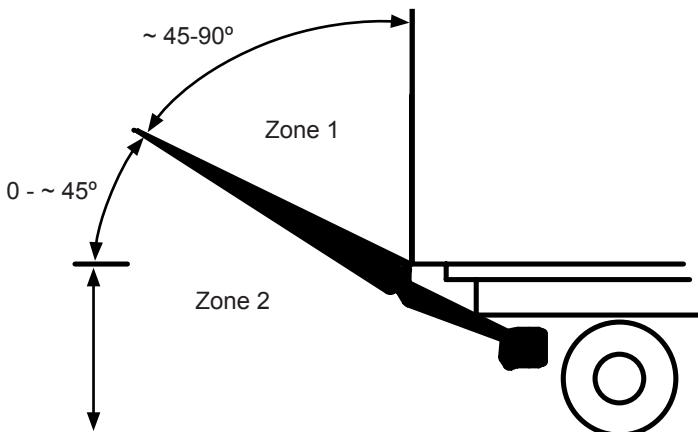


User safety, controllers on lift with fixed controllers and extra button

The following applies to ensure proper function:

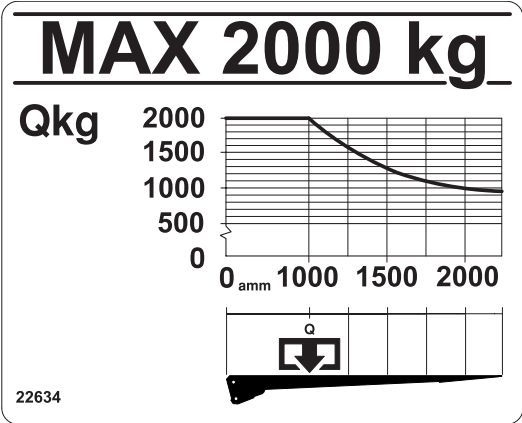
Zone 1: Closing, and in many cases opening, (depending on the lift model). To avoid crush risk, only **fixed controllers** (not radio or spiral controllers) together with extra button should be used.

Zone 2: All controllers and functions can be used.

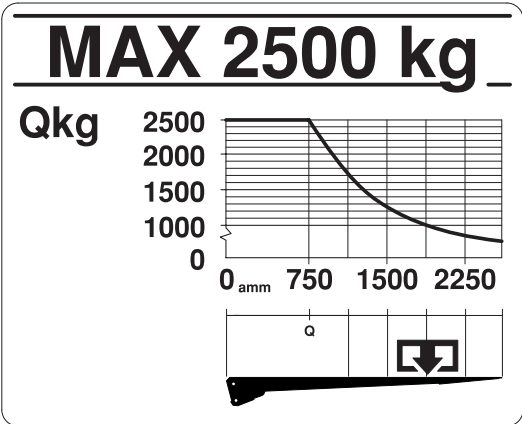


Loading diagram

Example on how the load weight changes when the distance to the body floors edge increases.



This tail lift has a maximum load capacity of 2000 kg when the centre of gravity is 1000 mm from the edge of the body floor. If the centre of gravity is placed 1500 mm from the edge of the body floor decreases the max load to ~1250 kg.



This tail lift has a maximum load capacity of 2500 kg when the centre of gravity is 750 mm from the edge of the body floor. If the centre of gravity is placed 1875 mm from the edge of the body floor decreases the max load to 1000 kg.

NOTE!
Make it to a habit to control the loading diagram and follow the recommendations so you maintain both your and the tail lifts safety.

4. Technical specifications

Noise emissions

Average emission sound pressure level does not exceed 70 dB.

Noise emission Directive 2000/14 / EC

Noise measurement according to EN ISO 11200-11204

Measurements were performed according to EN ISO 3741-3746 Class II

Average measurement points A to D (dB).

	ZHD 1500/2000	Z 15/20
Empty lift, upper position	65,35	55,31
Loaded lift, upper position	68,03	56,71
Empty lift, lower position	55,20	47,30
Loaded lift, lower position	59,38	50,72
Open platform	62,97	49,19
Closing platform	67,18	53,92

Remote Diagnostics System

Zepro shall at all times have the right to:

- install, maintain and dismantle remote diagnostics tools or similar sensor-based connectivity capabilities ("Connectivity") in and from the Equipment
- access, send, receive, collect, store and use any and all information and data gathered through the Connectivity, including but not limited to, information concerning efficiency, availability, downtime, operation, operating environment, movement, condition, logon, location and similar information relating to the Equipment (the "Information"). Such Information may be used for optimizing the Equipment, or any related equipment or services as well as for Zepros internal business and/or operating purposes. Zepro shall be responsible for complying with applicable laws and regulations related to such Information.

Customer/user shall not in any way remove, disable, or interfere with the Connectivity or the Information. Any intellectual property rights or other right and title in and to the Connectivity features and the Information and all their further developments shall at all times be and remain the exclusive property of Zepro.

5. Design and Function

General

The Zepro tail lift is operated electro-hydraulically. A hydraulic pump powered by the vehicle's ordinary battery supplies hydraulic oil to the actuating hydraulic cylinders. The hydraulic system is controlled by valves operated with the associated controllers. The hydraulic system is easily accessible for inspection and maintenance.

The platform is made of steel or aluminium and fitted with a non-slip top surface. The lift arm 1st boom connects the platform with the support frame. Lift and tilt is accomplished with associated cylinders.

Most models also have underrun protection fitted on the lift frame.

Hydraulic system

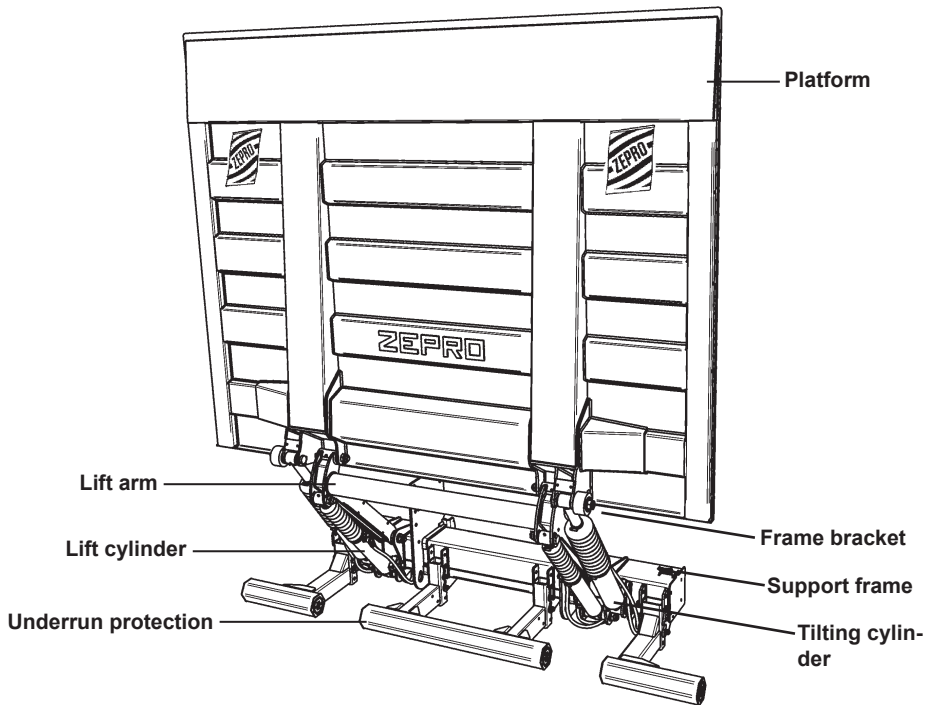
The lift's hydraulic system is designed to meet regulatory requirements such as lifting speed. An integrated bypass valve protects the hydraulic system from overload when lifting and tilting up. The hydraulic pump electric motor has protection against overheating with a thermostatic switch that cuts the control circuit if the engine overheats. This switch is automatically reset once the engine has cooled down.

The main power to the hydraulic pump electric motor is led via a fuse that also functions as the lift's main switch. The fuse is located near the vehicle battery.

Operating current comes from the driver's cab. When the control power is off, the lift is "locked". The control current must be cut during all transport. To conserve battery power, always cut power to the lift when not in use.

The hydraulic cylinders perform the work needed to operate the lift arm and tilt the platform. The cylinders are equipped with electrical and, in some cases mechanical, hose rupture valves as protection against the platform with any load rapidly dropping if, for example, a hose bursts. The electric lowering valve also acts as a locking device during transport.

Overview



Controller

The lift can be operated with several different models of fixed controllers and with the "remote controller", available in two versions; spiral cable and radio.

The tail lift, platform and, if applicable, lift slider are operated with the controller.

Up

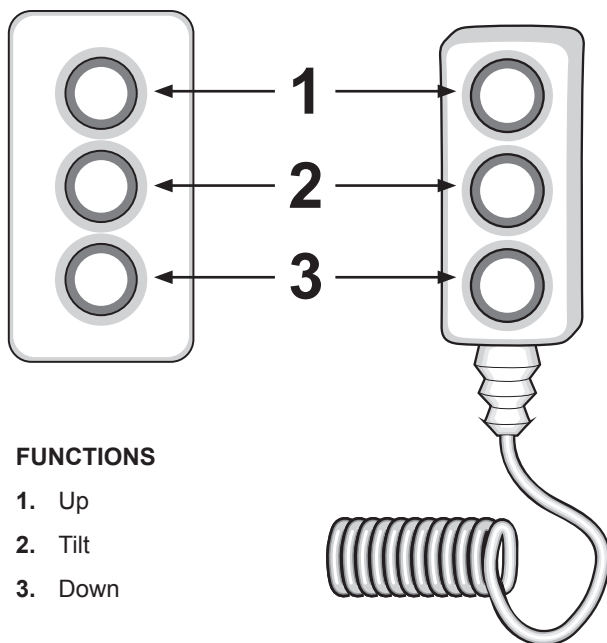
Pressing and holding the "Up" button (1), will raise the lift.

Down

Pressing and holding the "Down" button (3), will lower the lift.

Tilt

Pressing and holding the "Tilt" button (2) will switch from the "Lift" function to the "Tilt" function. Operation of the tilt function is done simultaneously and together with the "Up" and "Down" buttons.

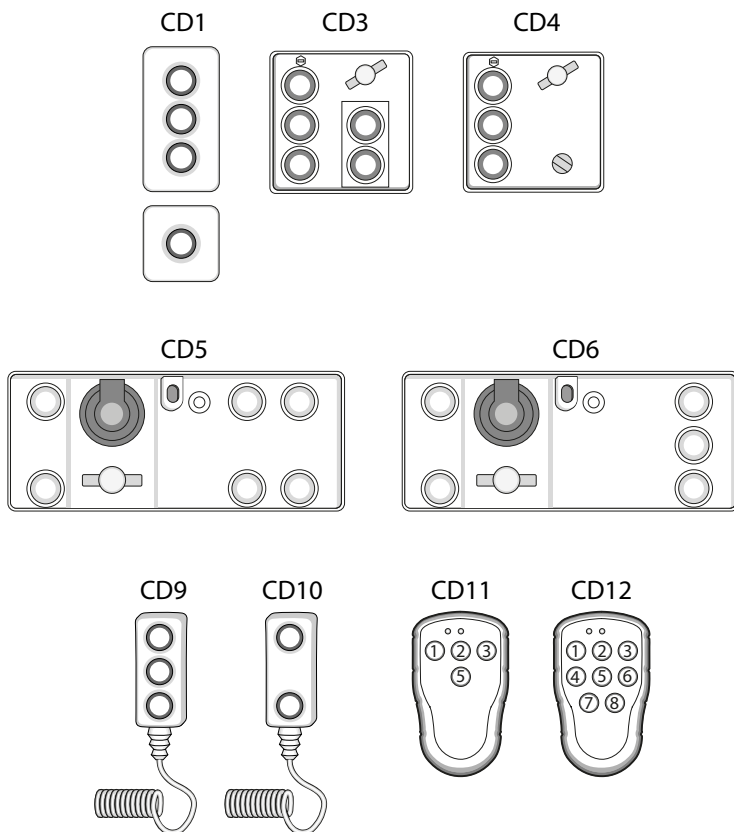


Examples of controller: 3-button fixed controller and spiral cable controller

Applicable controllers

A selection of the most commonly available controllers is shown below. Possible models vary depending on lift model, configuration and relevant market.

CD= Control Device



6. Operation

Before using the lift:

- Test lift, preferably with maximum load.
- Have a forklift prepared under the platform or stay at ground level.
- Make sure the platform and 1st booms are free from damage and cracks.

NB!

Do not overload the lift.

NB!

The lift should only be used by qualified personnel.

NB!

An integrated bypass valve protects the hydraulic system from overload when lifting and tilting up. Note that the bypass valve does not prevent overload at rest or during down movements. This must absolutely not be used for overloading when lowering.

NB!

Platform movement can be stopped (if the pushbuttons are released) at any time and in any position as the pushbuttons directly cut the power to the respective function.

NB!

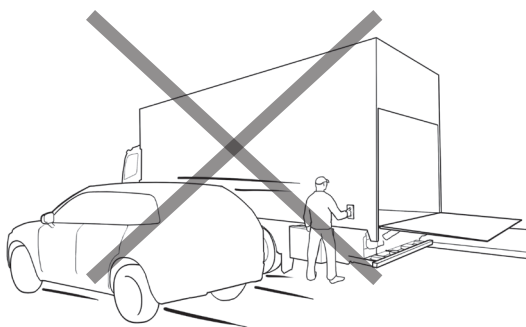
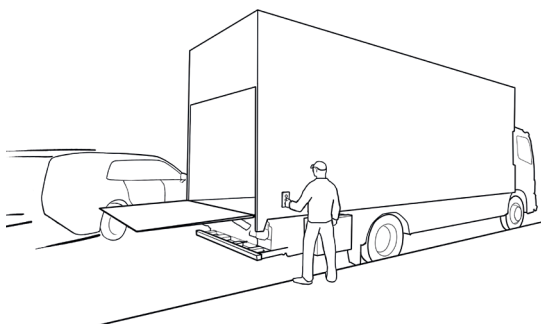
In case of damage or accident:

- Report to the supervisor or responsible person immediately for measures to be taken.
- Contact an authorised workshop if there is any suspicion of damage to the lift.

Operating tail lift

WARNING

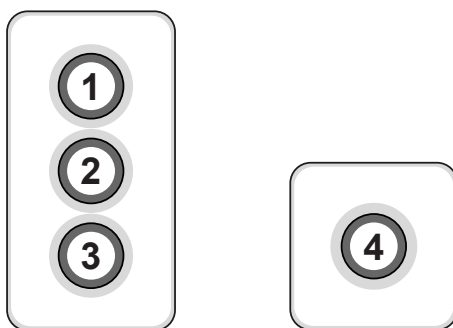
The vehicle should be positioned so that operation of the tailgate lift can take place without danger from moving traffic



Fixed controllers standard lift

Two-hand operation

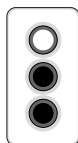
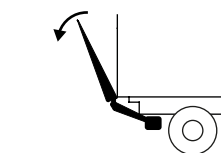
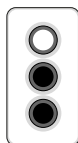
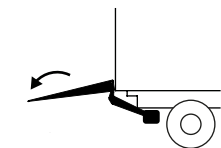
Two-hand operation is used to avoid crush injuries. This means the two-hand button (4) must be activated together with the fixed controller to perform manoeuvres when there is a high risk of crush injuries.



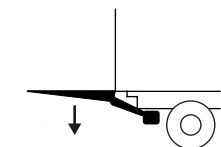
1. Up
2. Tilt
3. Down
4. Two-hand button

Tilt down

Two-hand operation is used when tilting downwards. Press and hold the "Tilt" (2) and "Down" (3) buttons in that order. The control system will read the angle of the platform. If the crush risk is considered high, the two-hand button (4) must also be pressed. The platform tilts down at a steady speed.

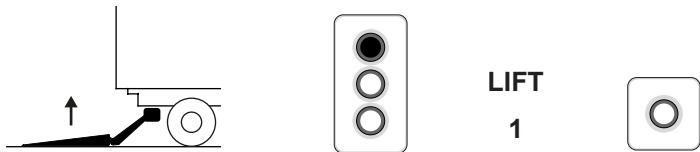
**TILT DOWN****2+3+4****TILT DOWN****2+3****Lower**

Press and hold the "Down" button (3). The platform is lowered at an even speed.

**LOWER****3**

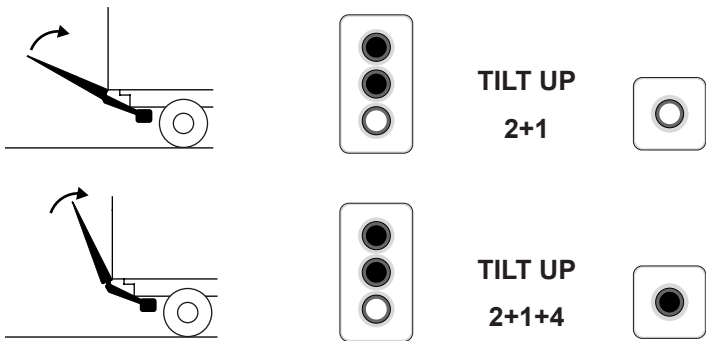
Lift

Press and hold the "Up" button (3). The platform is lowered at an even speed.



Tilt up

Two-hand operation is used when tilting up. Press and hold the "Tilt" (2) and "Up" (1) buttons in that order. The control system will read the angle of the platform. If the crush risk is considered high, the two-hand button (4) must also be pressed. The platform is tilted up at a steady speed.

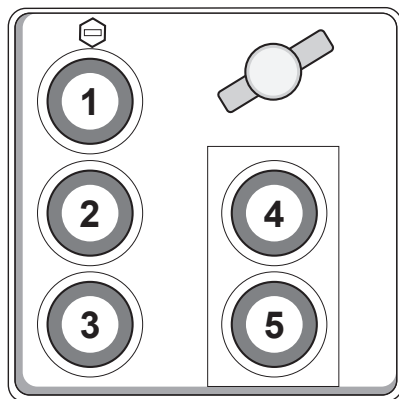


NB!

Always lift the bridge towards the top stopping piece before tilting it to transport position.

Fixed controller slider lift

The controller governs all tail lift functions.

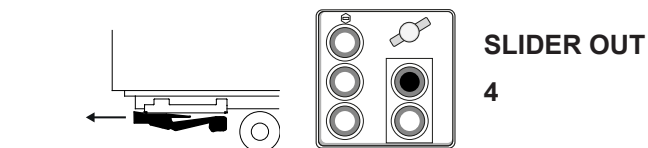


FUNCTIONS

1. Up
2. Tilt
3. Down
4. Slider out
5. Slider in

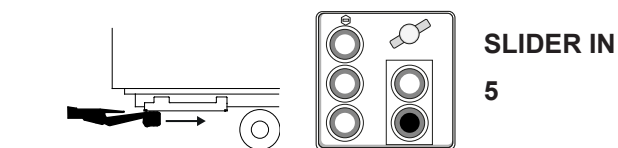
Slider out

Press and hold the "Slider out" button (4). The lift moves out.



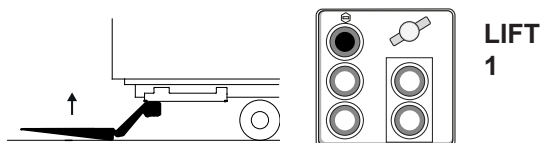
SLIDER IN

Press and hold the "Slider in" button (5). The lift is goes in.



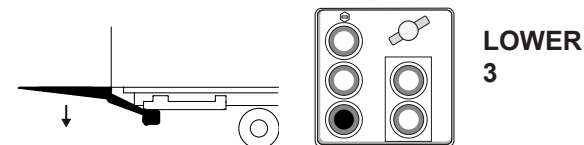
Lift

Press the Up button (1). The platform is raised at an even speed.

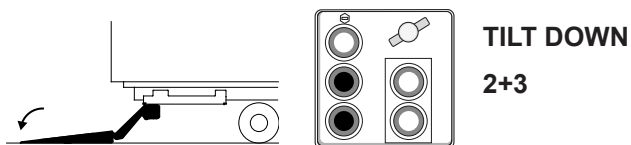


Lower

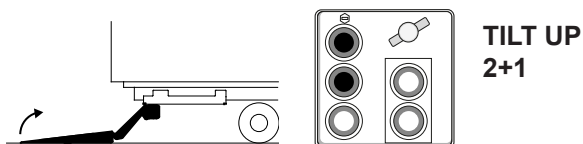
Press and hold the "Down" button (3). The platform is lowered at an even speed.

**Tilt down**

Press and hold the "Tilt" (2) and "Down" (3) buttons in that order.

**Tilt up**

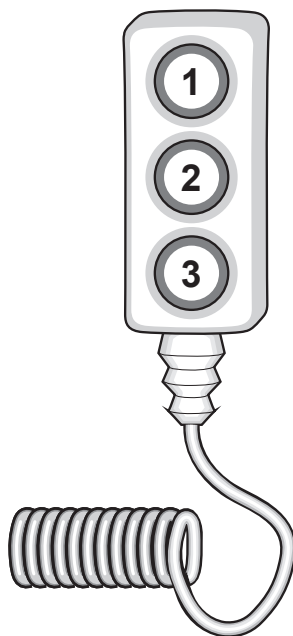
Press and hold the "Tilt" (2) and "Up" (1) buttons in that order. The platform tilts up at a steady speed.



Spiral cable controller

NB!

The opening and closing functions may only be carried out with fixed controller and extra button. See also User safety controller on page 20.

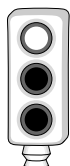
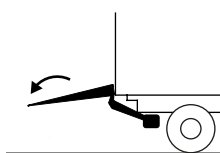


FUNCTIONS

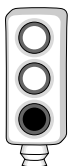
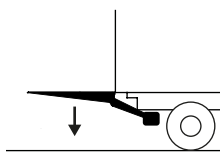
1. Lift up
2. Tilt
3. Lift down

Tilt down

First press the tilt button (2) and then the down button (3).

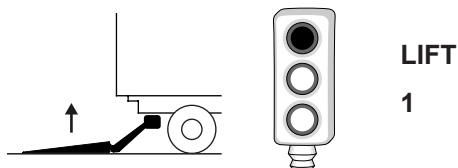
**TILT DOWN****2+3****Lower**

Press the down button (3). The platform is then lowered at an even speed.

**LOWER****3**

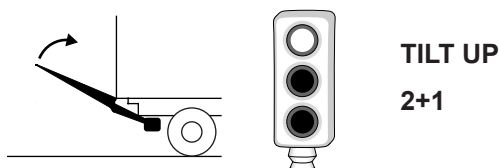
Lift

Press the up button (1). The platform is then raised at an even speed. If the load is too heavy, the overflow valve will open.



Tilt up

First press the tilt button (2) and then the up button (1).



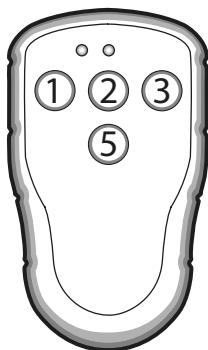
Radio controllers standard lift

NB!

The opening and closing functions may only be carried out with fixed controller and extra button. See also User safety controller on page 20.

Only one radio transmitter per lift may be configured.

Radio controllers standard lift



FUNCTIONS

1. Lift up
2. Tilt
3. Lift down
5. Lock/Unlock

1+2 Close

2+3 Open

Radio controller slider lift



FUNCTIONS

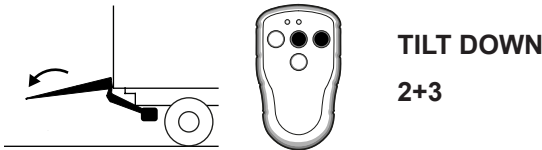
1. Lift up
2. Tilt
3. Lift down
4. Slider in
5. Lock/Unlock
6. Slider out
7. Function Y
8. Function Z

1+2 Close

2+3 Open

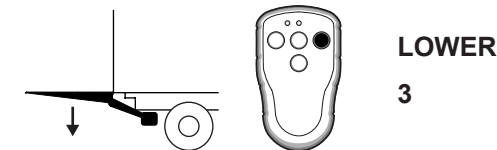
Tilt down

First press the tilt button (2) and then the down button (3).



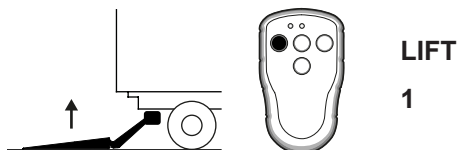
Lower

Press the down button (3). The platform is then lowered at an even speed.

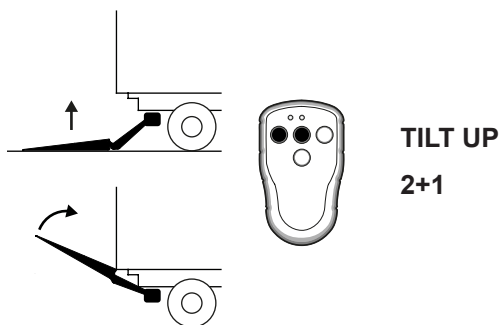


Lift

Press the up button (1). The platform is then raised at an even speed.

**Tilt up**

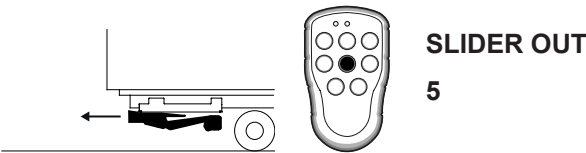
First press the tilt button (2) and then the up button (1).



Radio controller slider lift

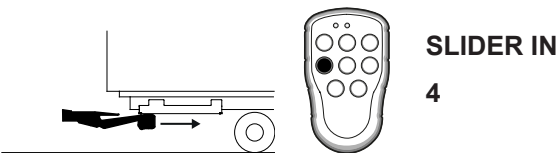
Slider out

Press button 4 (arrow left) and the lift will exit its transport position. Fold out the platform.



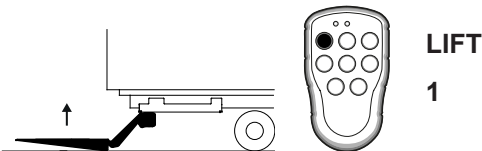
SLIDER IN

Fold in the platform. Press button 5 (arrow right) and the platform will enter its transport position.



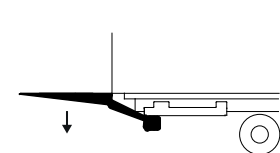
Lift

Press the Up button (1). The platform is raised at an even speed.

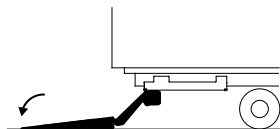


Lower

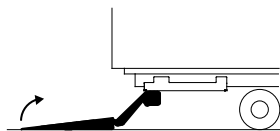
Press the down button (3). The platform is lowered at an even speed.

**LOWER****3****Tilt down**

Press tilt (2) and down buttons (3) in that order.

**TILT DOWN****2+3****Tilt up**

Press tilt (2) and down buttons (1) in that order.

**TILT UP****2+1**

Moving load from one vehicle to another

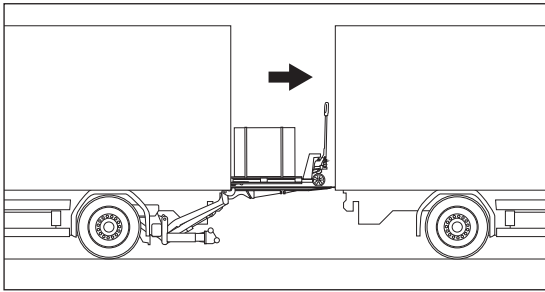
WARNING

Maximum overrunning weight = Tail lift load capacity x 0.5. Overloading the lift capacity can cause material damage.

It is not allowed to drive with a forklift on the platform.

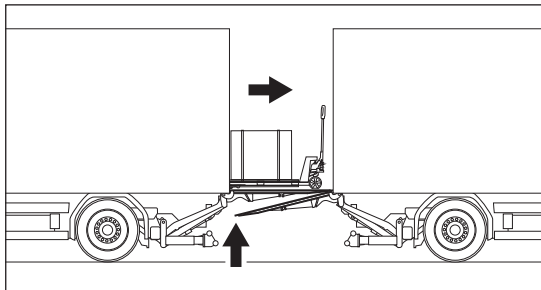
If possible, use the lift on the vehicle that the load is to be transferred from as a transfer ramp. The load being transferred shall not exceed half the load capacity of the lift.

Example: Lift with 2000 kg lifting capacity = maximum permissible overrunning weight 1000 kg.



Maximum overrunning weight = Tail lift load capacity x 0.5

If the receiving vehicle is equipped with a tail lift, make sure the tip of its platform is always free when transferring cargo.



The tip of the platform on the receiving vehicle must always be free

Loading/unloading at loading bay with platform on bay

WARNING

Maximum overrunning weight = Tail lift load capacity x 0.5. Overloading the lift capacity may cause material damage.

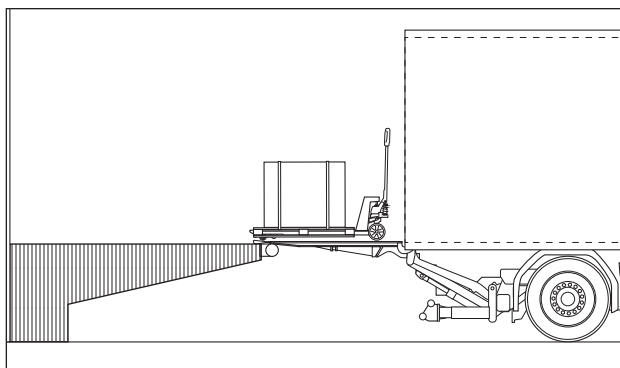
It is not allowed to drive with a forklift on the platform.

When loading, the vehicle will get lower and the pressure on the lift increase by the weight loaded in the vehicle. When the total laden weight exceeds the maximum capacity of the lift, the platform must be tilted up slightly and then lowered to the bay surface again before loading can continue. The platform must never be under load when tilted.

When unloading, the platform will be raised relative to the loading bay depending on how much weight is unloaded from the vehicle. When unloading heavy goods in particular, the platform may be raised so much that it must be tilted down against the loading bay before unloading can continue.

The load being transferred shall not exceed half the load capacity of the lift.

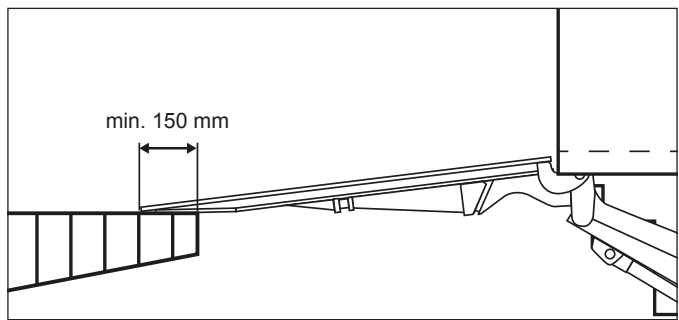
Example: Lift with 2000 kg lifting capacity = maximum permissible overrunning weight 1000 kg.



Loading with platform on bay

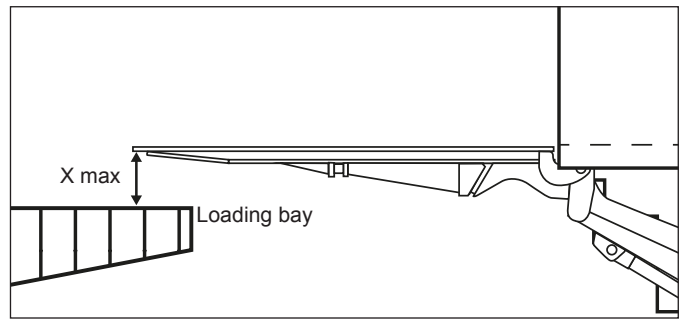
Adapting the platform to the loading bay

As the vehicle is unloaded, the platform will rise in relation to the loading bay. Tilt down the platform at regular intervals. Make sure the platform is overlapping enough (min 150 mm) and the it has a secure and stable resting position on the bay.



Maximum tilt-down angle

Under no circumstances may the driver tilt down the platform more than the 10° (see table below), while it is loaded.



Before tilting down:
Check the table to make sure the permitted tilt-down angle is not exceeded.

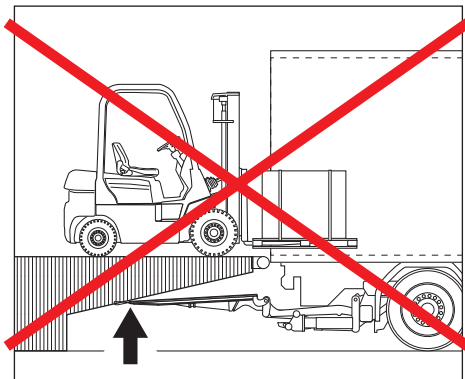
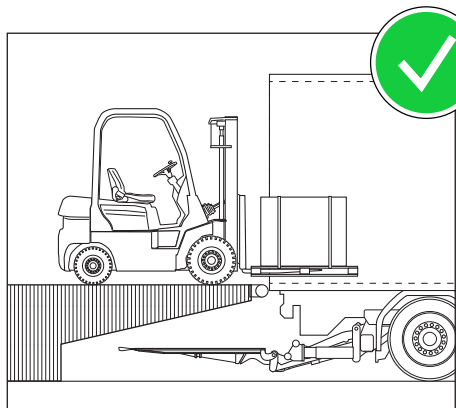
Platform length	X max
1200	280 mm
1500	260 mm
1700	300 mm
2000	350 mm
2500	435 mm

Loading/unloading at loading bay with platform under bay

WARNING

Overloading the lift capacity may cause material damage.

Always make sure there is sufficient space for the platform under the loading bay. As loading/unloading takes place, the vehicle height will be rise/drop. If the platform is resting on a fixed point underneath the bay when unloading or lowered onto the surface when loading, a load corresponding to the weight removed from the vehicle will be applied to the lift or respectively added to the vehicle. There is a great risk of overloading.



Loading/unloading with platform under bay

After use

Lock the platform. Cut the operating current to the cab. The platform will then be locked for unauthorised persons.

If the platform lock handle (if available) is stiff, it may be due to a burst hose on the lift or tilt system. Check for this first by operating “lift” and “tilt up”.

NB! Certain models of controller are equipped with a heating coil. This connects to the control current switch, which means it puts a drain on the battery as long as the control current is switched on.

NB!

In case of damage or accident:

- Report to the supervisor or responsible person immediately for measures to be taken.
- Contact an authorised workshop if there is any suspicion of damage to the lift.

7. Service and maintenance

Think of the lift!

The ZEPRO-lift needs maintenance to give trouble-free service. Grease and control regularly. Also check that all details are not damaged: Hoses, cylinder covers etc. Follow the maintenance instructions and the inspection record.

Remark!**When necessary...****Bleeding the cylinders**Lift cylinders:

Lower the platform a few times. You may have to lift the truck to fully lower the platform.

Tilt cylinders:

Close the platform up against the vehicle body and then opening and tilting all the way down.

NOTE!**Lubrication**

Lubricate the lift according to instructions page 50.

For lubricating points, see the lubrication instruction IE-0101

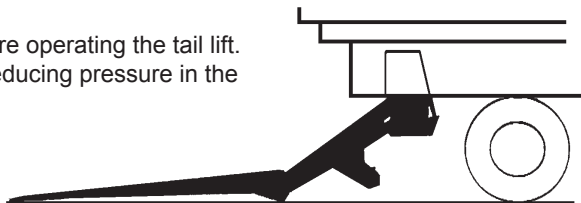
NOTE!**Hydraulic oil**

Check the oil level. Use Zepro oil or equivalent, if not available, please contact us.

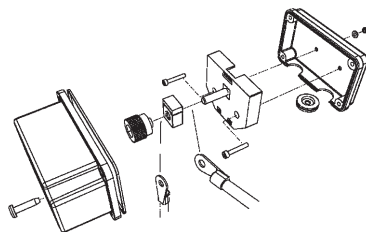
Change the oil once a year. Water and dirt can prevent the lift from working properly. See service instructions IE-0102 for oil change.

Safety information

Read the safety instructions before operating the tail lift.
Lower lift to ground level, thus, reducing pressure in the hydraulic circuit to a minimum.



Break the circuit at the fuse.



General information service

Your ZEPRO lift has been designed to give you years of trouble-free service. Just like other mechanical devices it requires regular inspections and maintenance in order to ensure that it remains in optimum working order.

The following are the manufacturer's recommendations for inspection and service frequencies. Take the time to adhere to them and you could prolong the life of your tail lift. Failure to follow these guidelines could result in dangerous faults arising thus increasing the risk of accidents.

1. Daily safety device check list
2. Once a week control of wear parts.
3. Greasing
4. Service station maintenance*.

* The service should be carried out one time per year (L-service) at Zepro approved service stations (or Zepro agents). After maintenance or repair service protocol must be completed and signed.

Zepro also recommend XL service every 3rd year. The XL-service includes L-service and replacement of parts that are included in the service kit.

Year 1	L-Service
Year 2	L-Service
Year 3	XL-Service
Year 4	L-Service
Year 5	L-Service
Year 6	XL-Service

Daily safety device check list

1. Before use each day check that all safety devices are securely fixed and clearly visible eg. flags with reflector strips, warning decals, signs (Working area and loading diagram for all control units and platform).
2. Check for damage to hoses. Oil leakage.
3. Check for cracks and correct fastening of lift arm, mounting brackets and bolt connections between tail lift and frame.
4. Check electric wires and connections.
5. Check electric safety valves and fuse.
6. Check cylinder covers for cracks.
7. If any details are damaged or missing contact your agent who will arrange for rapid delivery of spare parts.

(5 & 6 if available)

Once a week control of wear parts

1. Lift, tilt and lowering with all control units.
2. Lowering and tilt down speeds.
3. Function of locking mechanism
4. Possible oil leakage in hydraulic hoses, couplings and cylinders.
5. Function of cabin switch.
6. Possible cracks or damage to mounting brackets.
7. Possible cracks or damage to support frame.
8. Wear or damage to pivot point bolts.
9. Possible cracks or damage to under run bar.
10. Possible cracks or damage to platform brackets.
11. Function of safety equipment.
12. Warning flags
13. Warning decals
14. Loading diagram.
15. Working area decal.
16. Free movement at hydraulic hoses.
17. Electrical safety valves (placed at the cylinders.)
18. Fuse in fuse box.

Lubrication

Which grease can I use?

Zepro recommend an acid-free lithium-complex grease with a high quality paraffin base oil as ground. The grease must meet ASTM D 4950, SAE J310 and NLGI (grade 2) GC-LB specification as well be classed EP (extreme pressure). Graphite grease should not be used.

How often should I lubricate?

Depending on lift model, bearings and axles there is different lubrication intervals. See the table below for Zepro's recommendations.

Minimum lubrication / year	1 shift	2 shift	3 shift
ZHD 1500/2000/2500	4	4	4
ZHD 3000	4*	4*	4*
SZF	8*	16*	24*
ZKZ	8*	16*	24*
ZHZ (fully lubrication free)	*	*	*
Other models	4	8	12

* Includes bearing which is lubrication free. See installation instructions for details.

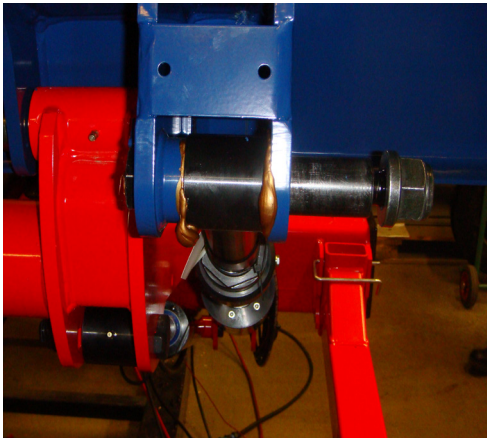
Generally: More lubrication intervals may be required if you are running in a hostile environment, or washing the lift often. Contact Zepro for advice.

What should I consider?

Before lubricating should the lift be cleaned, especially lubrication points and nipples should be thoroughly cleaned. Lubrication should be performed so that a collar with grease is visible on both sides of the bearings to protect against the ingress of water, salt, sand and dirt. (See image to the right.)

Things to check?

When lubricating, the grease nipples should be checked to ensure they are function correctly and are not damaged, defective nipples should be replaced. If you can not get grease even though the new nipple is assembled, the pivot bolt should be disassembled. Bearings, pivot bolts and lube channels be cleaned, re-grease and assembled back, and then lubricate in the usual way. If necessary, replace pivot bolt and / or bearings.



For lubricating points, see the lubrication instruction IE-0101

Hydraulic oil / Hydraulic cleanliness

A high level of cleanliness must be observed whenever handling hydraulic components:

- Before dismantling, outside surfaces of all components must be well cleaned.
- When dismantling the hydraulic supply system, the working surfaces must be well cleaned of any dirt in the form of shavings, dust, lubricants, etc.
- If the hydraulic system is not to be reassembled immediately after dismantling, all components must be kept in such a way that they are not exposed to undue contamination. An appropriate way of storing the components is some kind of plastic packaging e.g. plastic sack or bag.
- In case of oil change, ensure that the exteriors of the top up containers are well cleaned and that a clean strainer is used for filling.
- The filler cap must be wiped/cleaned before unscrewing.
- The rags or paper used when cleaning working surfaces and components should be lint free.
- Avoid the use of mounting grease, use hydraulic oil instead if there is a need for lubrication.
- Zepro Original oil or equivalent should be used when changing oil.

Alternative oils:

Normal to Arctic conditions

ISO VG 22 or VG 32, ISO 11158 HV and DIN 51524 HVL.P.

Castrol Hyspin AWW 32
BP Energol HFV-LT
Shell Tellus Arctic
Texaco Rando Ashless 8401
Esso Univis HVI 26
Statoil 131
OK/Q8 Hindemith LT
Mobil Aero HF or HFA*
Neste Hydraulik Super 28

Normal to Tropical conditions

ISO VG 46 or VG 68, ISO 11158 HM or HV plus DIN 51524HLP or HVL.P.

Castrol Hyspin AWH 46 or 68
BP Bartran SHF-S 46 or HV 68
Shell Tellus TX 46 or 68
Texaco Rando HDZ LT46 or HDZ68
Esso Univis N 46 or 68
OK/Q8 Handel 46 or 68
Mobil DTE 10M-series, 15M or 16M
Neste Hydraulik 46 or 68

* not HF oil, as shown below.



WARNING

ADR and HF oils must never be used. HF oils contain additives that can have a negative effect on polyurethane, which most of our cylinder seals are made of. Even ATF oil contains additives that have a negative effect on plastic and rubber materials, which often results in leakage in cylinders.

ATF = Automatic Transmission Fluid
HF = High flashpoint

Service protocol L-Service Year 1

Service Protocol L-Service (annual)

Customer:			Vehicle:		
			Reg.No:		
Lift model:			Prod.No:		
C=Check R=Replace L=Lubrication * If the lift has the equipment					
Comments OK  	<input checked="" type="checkbox"/>		Service points	Information	See instructions for resp. lift models
			Mecanics (Visual inspection of any cracks and / or damage)		IE-0110
C			1.1 Mounting bracket	Any cracks / damage, Torques	IE-0105 / IE-0104
C			1.2 Support frame	Any cracks / damage, drainage holes	IE-0105
C			1.3 Liftarm	Any cracks / damage	IE-0105
C			1.4 Platform	Any cracks / damage	IE-0105
C			1.5 Bumper bar	Any cracks / damage, Torques	IE-0105 / IE-0104
C			1.6 Cylinders	Any cracks / damage, gaiters	IE-0105
C			1.7 Pivot bolt, bushing (all)	Wear and tear, Torques	IE-0105 / IE-0104
C			1.8 Slide system*	Any cracks / damage, Torques, and functional check	IE-0105 / IE-0104
L			1.9 Lubrication	All lubrication points	IE-0101
C			1.10 Sealings against bodywork*	Wear and tear, condition	IE-0106
				Hydraulics (sequence) of an oil change (Visual inspection of oil leak on the entire hydraulic system)	IE-0109
C			2.1 Main fuse	Cleanliness, contact surfaces	IE-0103
R			2.2 Hydraulic oil	Changes	IE-0102
C			2.3 Hydraulic hoses	Oil leak, wear and tear, free movement	IE-0104
C			2.4 The system's leakproofness	Hydr.connection.unit+tank, cyl. torques	IE-0104
C			2.5 Pressure Relief Valve	Valve should open when tilting against body, check pressure if not opening.	IE-0108
C			2.6 Velocity lifting, lowering, tilting	That the lifts speed is within the correct range	IE-0111
				Electrical equipment (check all the points cable and interfaces)	
C			3.1 Main power cable, ground cable	Wear and tear, attachment, contact surface	IE-0103
C			3.2 Control units	All functions of all control units	IE-0103
C			3.3 Connection box for control units	Tightness, cleanliness	IE-0103
C			3.4 Circuit card	Function, connections, wear and tear	IE-0103
C			3.5 Alarm for open platform	That the lamp shine when platform is not closed	IE-0103
C			3.6 Battery voltage, vehicle and lift inactive	Difference between the battery and hydraulic unit (not more than 6% difference)	IE-0103
C			3.7 Cabin switch*	Functional test	IE-0103
				Signs, stickers (Visual inspection of the function and interpretable)	
C			4.1 Warning flags, -tape	2 pcs on platform, platform edge	IE-0107
C			4.2 Load chart	1 pc on platform, 1 pc outside control unit	IE-0107
C			4.3 Working area	Sticker on platform	IE-0107
C			4.4 Instruction control units	Outside control unit	IE-0107
C			4.5 Type plate	Is firmly attached and is INTERPRETABLE	IE-0107

Note: If comment is marked for any of the service points;
complete the task below

Service control.
(Mark the box for actions performed for each. service point.)

Service- points	Comments / Actions

Inspection performed:	Actions performed:
Signature.....	Signature.....
Date.....	Date.....
Company stamp	Company stamp

Service protocol L-Service Year 2

Service Protocol L-Service (annual)

Customer:		Vehicle:	
		Reg.No:	
Lift model:		Prod.No:	
C=Check R=Replace L=Lubrication * If the lift has the equipment			
Comments OK	<input checked="" type="checkbox"/>	Service points	Information
			See instructions for resp. lift models
		Mechanics (Visual inspection of any cracks and / or damage)	
C		1.1 Mounting bracket	Any cracks / damage, Torques
C		1.2 Support frame	Any cracks / damage, drainage holes
C		1.3 Liftarm	Any cracks / damage
C		1.4 Platform	Any cracks / damage
C		1.5 Bumper bar	Any cracks / damage, Torques
C		1.6 Cylinders	Any cracks / damage, gaiters
C		1.7 Pivot bolt, bushing (all)	Wear and tear, Torques
C		1.8 Slide system*	Any cracks / damage, Torques, and functional check
L		1.9 Lubrication	All lubrication points
C		1.10 Sealings against bodywork*	Wear and tear, condition
		Hydraulics (sequence) of an oil change (Visual inspection of oil leak on the entire hydraulic system)	
C		2.1 Main fuse	Cleanliness, contact surfaces
R		2.2 Hydraulic oil	Changes
C		2.3 Hydraulic hoses	Oil leak, wear and tear, free movement
C		2.4 The system's leakproofness	Hydr.connection.unit+tank, cyl. torques
C		2.5 Pressure Relief Valve	Valve should open when tilting against body, check pressure if not opening.
C		2.6 Velocity lifting, lowering, tilting	That the lifts speed is within the correct range
		Electrical equipment (check all the points cable and interfaces)	
C		3.1 Main power cable, ground cable	Wear and tear, attachment, contact surface
C		3.2 Control units	All functions of all control units
C		3.3 Connection box for control units	Tightness, cleanliness
C		3.4 Circuit card	Function, connections, wear and tear
C		3.5 Alarm for open platform	That the lamp shine when platform is not closed
C		3.6 Battery voltage, vehicle and lift inactive	Difference between the battery and hydraulic unit (not more than 6% difference)
C		3.7 Cabin switch*	Functional test
		Signs, stickers (Visual inspection of the function and interpretable)	
C		4.1 Warning flags, -tape	2 pcs on platform, platform edge
C		4.2 Load chart	1 pc on platform, 1 pc outside control unit
C		4.3 Working area	Sticker on platform
C		4.4 Instruction control units	Outside control unit
C		4.5 Type plate	Is firmly attached and is INTERPRETABLE

Note: If comment is marked for any of the service points;
complete the task below

Service control.
(Mark the box for actions performed for each. service point.)

Service- points	Comments / Actions

Inspection performed:

Signature.....

Date.....

Company stamp

Actions performed:



Signature.....

Date.....

Company stamp

Service protocol XL-Service Year 3

Service Protocol XL-Service Incl. replacement of parts in Service Kit

Customer:			Vehicle:		
			Reg.No:		
Lift model:			Prod. No:		
C=Check R=Replace L=Lubrication * If the lift has the equipment **If the service kit contains the detail					
Comments OK  		Service points		Information	
		Mechanics (Visual inspection of any cracks and / or damage)		IE-0110	
C		1.1 Mounting bracket	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.2 Support frame	Any cracks / damage, drainage holes	IE-0105	
C		1.3 Liftarm	Any cracks / damage	IE-0105	
C		1.4 Platform	Any cracks / damage	IE-0105	
C		1.5 Bumper bar	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.6 Cylinders	Any cracks / damage, gaiters	IE-0105	
R		1.7 Support wheel*	Replace in connection with control of pivot bolts		
C		1.8 Pivot bolt, bushing (all)	Wear and tear, Torques	IE-0105 / IE-0104	
C		1.9 Slide system*	Any cracks / damage, Torques, functional control	IE-0105 / IE-0104	
L		1.10 Lubrication	All lubrication points	IE-0101	
C		1.11 Sealings against bodywork*	Wear and tear, condition	IE-0106	
		Hydraulics (sequence) of an oil change (Visual inspection of oil leak on the entire hydraulic system)		IE-0109	
C		2.1 Main fuse	Cleanliness, contact surfaces	IE-0103	
R		2.2 Hydraulic oil	Oil, Strainer, o-ring tank,	IE-0102	
R		2.3 Hydraulic hoses	Also replace the supplied rubber steel washers	IE-0104	
R		2.4 Solenoid	Changes in connection with oil change		
R		2.5 Filler cap	Changes in connection with oil change		
C		2.6 The system's leakproofness	Hydr.connection, -unit+tank, cyl. torques	IE-0104	
C		2.7 Pressure Relief Valve	Valve should open when tilting against body, check pressure if not opening.	IE-0108	
C		2.8 Velocity lifting, lowering, tilting	That the lifts speed is within the correct range	IE-0111	
		Electrical equipment (check all the points cable and interfaces)			
C		3.1 Main power cable, ground cable	Wear and tear, attachment, contact surface	IE-0103	
C		3.2 Control units	All functions of all control units	IE-0103	
C		3.3 Connection box for control units	Tightness, cleanliness	IE-0103	
R		3.4 Circuit card**, Relay**	Function, connections, wear and tear **Change if incl. in service kit	IE-0103	
C		3.5 Alarm for open platform	That the lamp shine when platform is not closed	IE-0103	
C		3.6 Battery voltage, vehicle and lift inactive	Difference between the battery and hydraulic unit (not more than 6% difference)	IE-0103	
C		3.7 Cabin switch*	Functional test	IE-0103	
		Signs, stickers (Visual inspection of the function and interpretable)			
R		4.1 Warning flags, -tape	Replace flag and profile	IE-0107	
C		4.2 Load chart	1 pc on platform, 1 pc outside control unit	IE-0107	
C		4.3 Working area	Sticker on platform	IE-0107	
C		4.4 Instruction control units	Outside control unit	IE-0107	
C		4.5 Type plate	Is firmly attached and is INTERPRETABLE	IE-0107	

Note: If comment is marked for any of the service points;
complete the task below

Service control.
(Mark the box for actions performed for each. service point.)

Service- points	Comments / Actions

Inspection performed:	Actions performed:
Signature.....	Signature.....
Date.....	Date.....
Company stamp	Company stamp

Service protocol L-Service (Annual) Year.....

Service Protocol L-Service (annual)

Customer:			Vehicle:		
			Reg.No:		
Lift model:			Prod.No:		
C=Check R=Replace L=Lubrication * If the lift has the equipment					
<input checked="" type="checkbox"/> OK <input type="checkbox"/>		Service points		Information	
		See instructions for resp. lift models			
Mechanics (Visual inspection of any cracks and / or damage)					
		IE-0110			
C		1.1 Mounting bracket	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.2 Support frame	Any cracks / damage, drainage holes	IE-0105	
C		1.3 Liftarm	Any cracks / damage	IE-0105	
C		1.4 Platform	Any cracks / damage	IE-0105	
C		1.5 Bumper bar	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.6 Cylinders	Any cracks / damage, gaiters	IE-0105	
C		1.7 Pivot bolt, bushing (all)	Wear and tear, Torques	IE-0105 / IE-0104	
C		1.8 Slide system*	Any cracks / damage, Torques, and functional check	IE-0105 / IE-0104	
L		1.9 Lubrication	All lubrication points	IE-0101	
C		1.10 Sealings against bodywork*	Wear and tear, condition	IE-0106	
Hydraulics (sequence) of an oil change (Visual inspection of oil leak on the entire hydraulic system)					
		IE-0109			
C		2.1 Main fuse	Cleanliness, contact surfaces	IE-0103	
R		2.2 Hydraulic oil	Changes	IE-0102	
C		2.3 Hydraulic hoses	Oil leak, wear and tear, free movement	IE-0104	
C		2.4 The system's leakproofness	Hydr.connection.unit+tank, cyl. torques	IE-0104	
C		2.5 Pressure Relief Valve	Valve should open when tilting against body, check pressure if not opening.	IE-0108	
C		2.6 Velocity lifting, lowering, tilting	That the lifts speed is within the correct range	IE-0111	
Electrical equipment (check all the points cable and interfaces)					
C		3.1 Main power cable, ground cable	Wear and tear, attachment, contact surface	IE-0103	
C		3.2 Control units	All functions of all control units	IE-0103	
C		3.3 Connection box for control units	Tightness, cleanliness	IE-0103	
C		3.4 Circuit card	Function, connections, wear and tear	IE-0103	
C		3.5 Alarm for open platform	That the lamp shine when platform is not closed	IE-0103	
C		3.6 Battery voltage, vehicle and lift inactive	Difference between the battery and hydraulic unit (not more than 6% difference)	IE-0103	
C		3.7 Cabin switch*	Functional test	IE-0103	
Signs, stickers (Visual inspection of the function and interpretable)					
C		4.1 Warning flags, -tape	2 pcs on platform, platform edge	IE-0107	
C		4.2 Load chart	1 pc on platform, 1 pc outside control unit	IE-0107	
C		4.3 Working area	Sticker on platform	IE-0107	
C		4.4 Instruction control units	Outside control unit	IE-0107	
C		4.5 Type plate	Is firmly attached and is INTERPRETABLE	IE-0107	

Note: If comment is marked for any of the service points;
complete the task below

Service control.
(Mark the box for actions performed for each. service point.)

Service- points	Comments / Actions

Inspection performed:	Actions performed:
Signature.....	Signature.....
Date.....	Date.....
Company stamp	Company stamp

Service protocol XL-Service (Every 3rd Year) Year.....

Service Protocol XL-Service Incl. replacement of parts in Service Kit

Customer:			Vehicle:		
			Reg.No:		
Lift model:			Prod. No:		
C=Check R=Replace L=Lubrication * If the lift has the equipment **If the service kit contains the detail					
Comments OK <input type="checkbox"/> <input checked="" type="checkbox"/>		Service points		Information	
				See instructions for resp. lift models	
		Mechanics (Visual inspection of any cracks and / or damage)		IE-0110	
C		1.1 Mounting bracket	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.2 Support frame	Any cracks / damage, drainage holes	IE-0105	
C		1.3 Liftarm	Any cracks / damage	IE-0105	
C		1.4 Platform	Any cracks / damage	IE-0105	
C		1.5 Bumper bar	Any cracks / damage, Torques	IE-0105 / IE-0104	
C		1.6 Cylinders	Any cracks / damage, gaiters	IE-0105	
R		1.7 Support wheel*	Replace in connection with control of pivot bolts		
C		1.8 Pivot bolt, bushing (all)	Wear and tear, Torques	IE-0105 / IE-0104	
C		1.9 Slide system*	Any cracks / damage, Torques, functional control	IE-0105 / IE-0104	
L		1.10 Lubrication	All lubrication points	IE-0101	
C		1.11 Sealings against bodywork*	Wear and tear, condition	IE-0106	
		Hydraulics (sequence) of an oil change (Visual inspection of oil leak on the entire hydraulic system)		IE-0109	
C		2.1 Main fuse	Cleanliness, contact surfaces	IE-0103	
R		2.2 Hydraulic oil	Oil, Strainer, o-ring tank,	IE-0102	
R		2.3 Hydraulic hoses	Also replace the supplied rubber steel washers	IE-0104	
R		2.4 Solenoid	Changes in connection with oil change		
R		2.5 Filler cap	Changes in connection with oil change		
C		2.6 The system's leakproofness	Hydr.connection, -unit+tank, cyl. torques	IE-0104	
C		2.7 Pressure Relief Valve	Valve should open when tilting against body, check pressure if not opening.	IE-0108	
C		2.8 Velocity lifting, lowering, tilting	That the lifts speed is within the correct range	IE-0111	
		Electrical equipment (check all the points cable and interfaces)			
C		3.1 Main power cable, ground cable	Wear and tear, attachment, contact surface	IE-0103	
C		3.2 Control units	All functions of all control units	IE-0103	
C		3.3 Connection box for control units	Tightness, cleanliness	IE-0103	
R		3.4 Circuit card**, Relay**	Function, connections, wear and tear **Change if incl. in service kit	IE-0103	
C		3.5 Alarm for open platform	That the lamp shine when platform is not closed	IE-0103	
C		3.6 Battery voltage, vehicle and lift inactive	Difference between the battery and hydraulic unit (not more than 6% difference)	IE-0103	
C		3.7 Cabin switch*	Functional test	IE-0103	
		Signs, stickers (Visual inspection of the function and interpretable)			
R		4.1 Warning flags, -tape	Replace flag and profile	IE-0107	
C		4.2 Load chart	1 pc on platform, 1 pc outside control unit	IE-0107	
C		4.3 Working area	Sticker on platform	IE-0107	
C		4.4 Instruction control units	Outside control unit	IE-0107	
C		4.5 Type plate	Is firmly attached and is INTERPRETABLE	IE-0107	

Note: If comment is marked for any of the service points;
complete the task below

Service control.
(Mark the box for actions performed for each. service point.)

Service- points	Comments / Actions

Inspection performed:	Actions performed:
Signature.....	Signature.....
Date.....	Date.....
Company stamp	Company stamp

8. Troubleshooting

Trouble shooting for operator

For other faults, please contact service workshop

Lifting

Problem:	Possible cause:	Correction:
No lift, motor starts.	Oil level too low.	Lower to ground, refill oil to max level.
No lift, motor does not start. Solenoid does not activate.	Electrical fault.	Check fuses in the cab, lift and main fuse between lift and battery. Check lines/connections.
	Motor overheated.	Wait until the motor has cooled down and try again (can take up to 30 mins depending on external conditions).
	Radio controller locked.	Unlock radio controller.
No lift, solenoid clicks but motor does not start.	Faulty solenoid or cable between contactor and motor.	Poor ground contact or poor mains power contact may prevent the motor starting even though the solenoid is activated. If not, change the solenoid.
Lift cannot raise specified load. Motor stops.	Poor connections.	Check all the connection points (+), (-) for the battery cables.
	Battery too weak.	Check the battery charge (does the car engine start?).
Lift cannot raise specified load. Lift motor continues to run.	Low oil level so pump sucks air.	Check oil level. Top up oil if necessary. Bleed the system.
Platform lifts and tips at same time.	Electrical fault.	Check lines/connections. Contact service workshop.

Lowering

Problem:	Possible cause:	Correction:
Platform cannot be lowered, nothing happens. No "click" from valves in hydraulic unit.	Electrical fault	Check fuses in truck cabin, taillift and mainfuse between lift and battery. Check wiring / connections.
Platform cannot be lowered, valves in hydraulic unit is activated	Electrical fault	Check wiring / connections between shiftvalve och control unit.
Slow lowering	Oil is to thick	Change to Zepro oil or equivalent see page 51.
	The lifts bearings are rough, ungreated or damaged.	Check that the lift arm and cylinders (piston rod) is undamaged. Lubricate all bearings.
	Compressed hoses	Check that no hoses is compressed.
Platform is lowering without any buttons pushed	Electrical fault	Check wiring / connections
	Leakage in hose or cylinder.	Check if oil is leaking
Platform is tilting down instead of lowering	Electrical fault	Check wiring / connections

Tilting up

Platform does not tilt up. Motor starts.	The oil level is to low.	Lower the platform to the ground, fill up oil to max level.
Platform does not tilt up. Motor will not start.	Electrical fault	Check wiring / connections.
Tilting up is slow	The oil level is to low.	Check oil level. Fill up if needed
	Battery capacity insufficient.	Check the battery charge (does the truck's motor start?).
Platform is lifting instead of tilting up	Electrical fault	Check wiring / connections.

Problem:	Possible cause:	Correction:
Tilting down		
Platform cannot be tilted down. No "click" from valves in hydraulic unit.	Electrical fault	Check fuses in truck cabin, taillift and mainfuse between lift and battery. Check wiring / connections.
Platform cannot be tilted down. Valves in hydraulic unit is activated	Electrical fault	Check wiring / connections.
Tilting down is slow	Oil is to thick	Change to Zepro oil or equivalent see page 21.
	The lifts bearings are rough, ungreased or damaged.	Check that the lift arm and cylinders (piston rod) is undamaged. Lubricate all bearings.
	Compressed hoses	Check that no hoses is compressed.
Platform is tilting down without tilt button pushed	Electrical fault	Check wiring / connections
	Leakage in hose or cylinder.	Check if oil is leaking
Platform is lowering instead of tilting down	Electrical fault	Check wiring / connections

9. Product Decommissioning

General

Disassembly of the tail lift should be performed by personnel with the required knowledge and experience in order to ensure that no dangers or environmental impact is caused due to lack of knowledge.

Applicable regulations and legislation

Local and national regulations and guidelines must be followed during disassembly/recycling.

Before disassembly

- Hydraulic system

The hydraulic fluid tank, hydraulic hoses and hydraulic cylinders must be emptied of hydraulic fluid before disassembly. The fluid must be collected for disposal.

WARNING ⚠

Make sure the platform is resting fully on the ground and that the hydraulic system has been depressurised before draining. Always use personal protective equipment as described in the safety data sheet when handling hydraulic fluid. Risk of personal injury.

Disassembly

Disassembly is best done in the following order:

1. Platform
2. Hydraulic cylinders and hoses
3. Hydraulic unit
4. 1st booms
5. Support frame, including mountings

WARNING ⚠

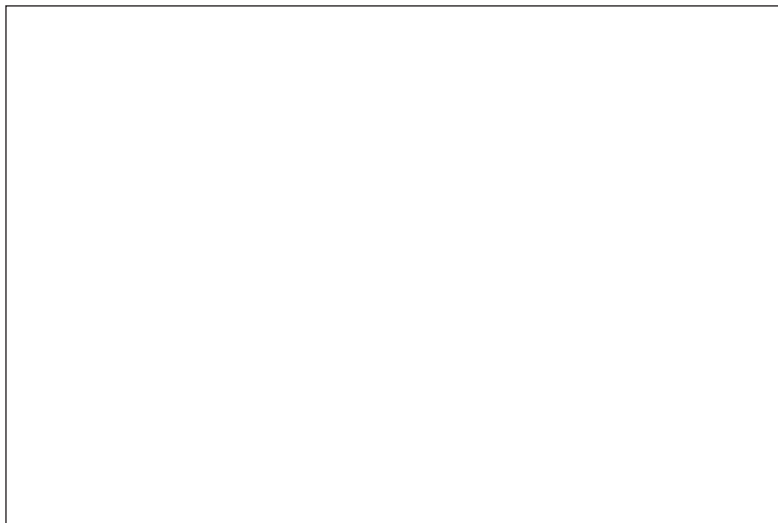
Always use lifting aids and take great care when performing heavy lifting. Make sure any heavy parts are resting fully on the ground or have been secured by a lifting device before screws/bolts, shafts or other fasteners are removed. Risk of personal injury.

Recycling

Metals, cables, electronic parts, plastics, rubber, ceramics, etc., must be separated from each other and disposed of as prescribed for each material. Refer also to the hydraulic fluid safety sheet.

This image shows a full page of blank, lined paper. It features approximately 20 evenly spaced horizontal grey lines across the entire width of the page, typical of notebook or composition paper. There are no margins, text, or other markings present.

ZEPRO Sales / Importer



Manufacturer

	Address:	Telephone:
KATRINEHOLM Sales	Mossvägen 8, S-641 49 Katrineholm, SWEDEN	+46 10-459 05 01
BISPGÅRDEN Factory	Allévägen 4, S-841 41 Bispgården, SWEDEN	+46 (0)696 - 17200



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www.zepro.com