

LEHNER
LIFTTECHNIK



LIFTBOY 4

USER HANDBOOK

INTRODUCTION

Thank you for deciding to buy the vertical lifting platform type Liftboy 4 (further only platform) for handicapped persons. It is a modern, technically advanced product, which meets current requirements of control and operational safety.

Beside the vertical lifting platform our company produces and supplies inclined stair platforms, inclined chair lifts, and other types of vertical lifting platforms with a lifting height from 0,0m to 4m, which are projected and constructed according to the customer's wish. We also offer lifts for pools and access ramps for overcoming height barriers.

Areas of our activity are special auxiliary devices, which allow non – barrier contact of handicapped fellow citizens for their activities in public and at home.

We will be happy to provide you any further information in written form, by phone or during a personal meeting in our or your company.

We would appreciate if you would kindly give us feedback on the operation of our products in order that we are able improve the performances of our devices.

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1 DEFINITIONS

1.1 Vertical lifting platform

Lifting device allowing vertical transport of handicapped persons for overcoming height barriers between two levels (from 0 to 1400 mm).

2 GENERAL INFORMATION

This technical specification is a document with a precise briefing for the use of this vertical lifting platform, including its ordering and delivery.

The specification was compiled with the aim to create a company standard, which determines basic parameters of the product in terms of its function, reliability, safety operation, way of design and completeness.

Minor variations in terms of the technical progress of the delivered device with description in technical specification do not lower the safety, functionality or reliability of the lifting platform.

Please consider the attached documents.

3 DESCRIPTION

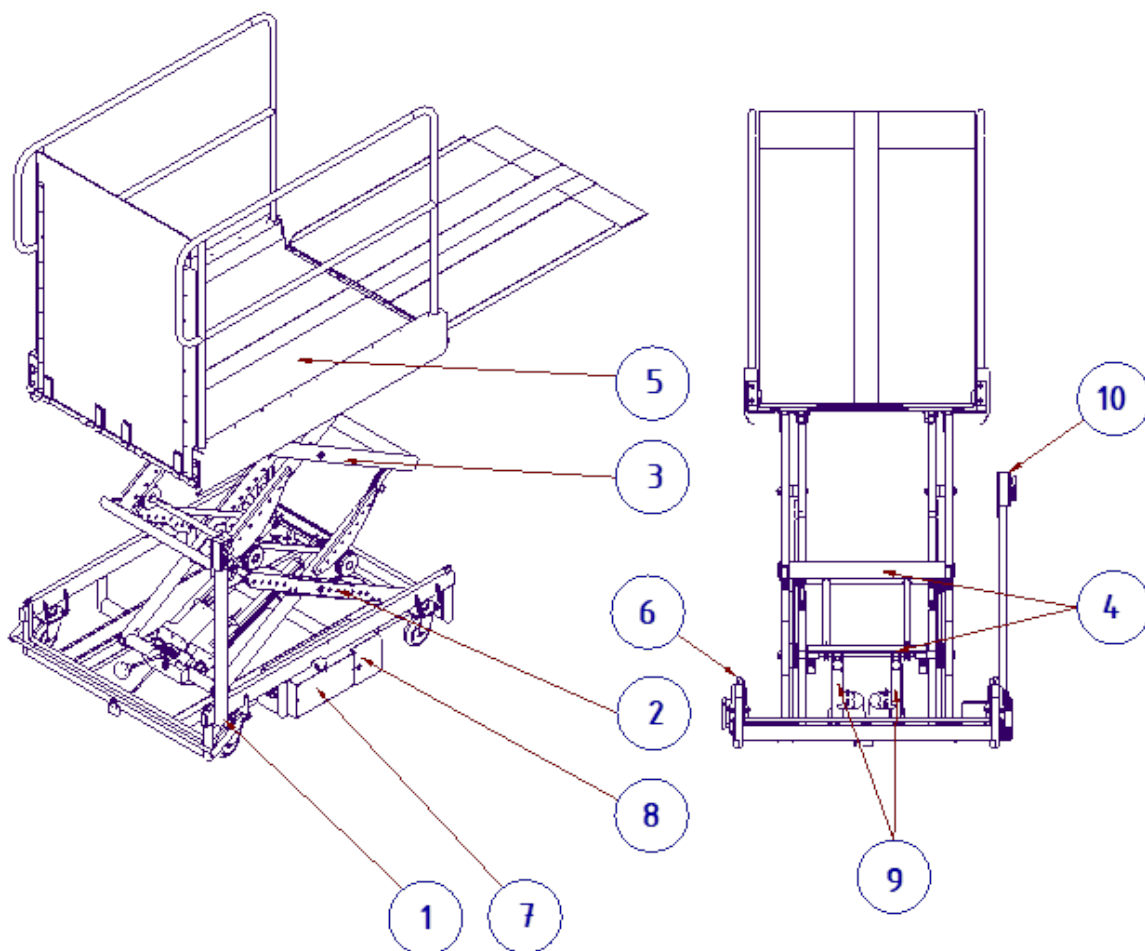
The vertical lifting platform is designed for the transport of one handicapped person sitting in a wheelchair or of one standing person up to a maximal total weight of 300 kg. The platform is not designed to transport an accompanying person as well. The platform also includes the transport wheels, barriers, and access ramps.

The platform is passable in straight direction, and it allows the transport of persons between two height levels. The control of the platform movement is performed by pressing and holding of the button on the control panel.

4 TECHNICAL DESCRIPTION

The vertical lifting platform consists of the following main parts:

- 1 Lower frame of the platform
- 2 Lower shear
- 3 Upper shear
- 4 Middle part
- 5 Platform floor
- 6 Lower safety frame
- 7 Electrical accumulators
- 8 Electrical switchboard of the platform (placed behind the removable cover)
- 9 Electromechanical strut
- 10 Control panel on the platform



5 TECHNICAL PARAMETERS

5.1 Technical data overview:

Outer platform dimensions:	Liftboy 4 S Width: 1215 mm Length: 1628 mm Liftboy 4 L Width: 1188 mm Length: 1571 mm
Inner platform dimensions:	Liftboy 4 S Width: 845 mm Length: 1500 mm Liftboy 4 L Width: 862 mm Length: 1410 mm
Lifting height:	Liftboy 4 S: 1000 mm Liftboy 4 L: 1400 mm
Maximal lifting height:	1400 mm
Minimum height of platform:	Liftboy 4 S: 182 mm Liftboy 4 L: 250 mm
Load capacity:	300 kg
Weight of platform:	270 kg
Operation load:	10 %, 6 min/h
Number of stops:	2
Design of platform:	Passable in straight direction
Lifting speed:	10 mm/s by nominal load
Drive system:	Electromechanical strut LINAK
Power supply of platform:	24 V DC, from accumulator
Maximal power:	300 VA
Noisiness:	Emissions of pressure rate from the platform do not exceed 70 dB (A)

5.2 Technical documentation and production

The quality of used materials for parts, dimensions of details, production of the platform and surface treatment comply with the valid set of manufacturing drawings of the producer.

6 CHARGING OF BATTERIES

The engine of the drive is powered by batteries. Type: maintenance-free lead gel batteries 12 V/ 9 Ah-2 pc, which are charged using the battery charger.

If the platform is not operating for a longer period of time, it is necessary to control them regularly and also charge them from time to time.

Also, it is appropriate to charge batteries before and after winter.

Batteries are to be charged always to full charge. A fully discharged battery must be charged as soon as possible again. The battery that is kept in insufficiently charged state will be damaged and it is not possible to renew its full capacity again. If the battery is fully charged it shows on the charger.

6.1 Light signals for charging, state of batteries and overload

In case the yellow signal LED lights up on the control panel the capacity of the battery is lowered. Then move the platform into the lower stop (where it stops automatically) and connect the charger.

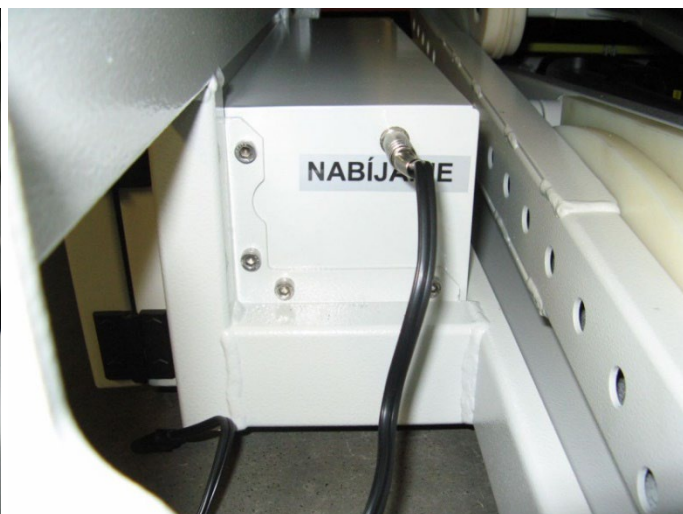
In case the capacity of the battery is insufficient, the red signal LED on the control panel lights up. The control circuit ensures that the platform moves down to the lower end stop even with insufficiently charged batteries. Then it is necessary to recharge the batteries or to change them.

In case the yellow signal LED is blinking while the platform is in the stop or during moving, the platform is overloaded, and it is not possible to leave the stop safely. If this situation appears during the operation, it is still possible to drive into the nearest stop.

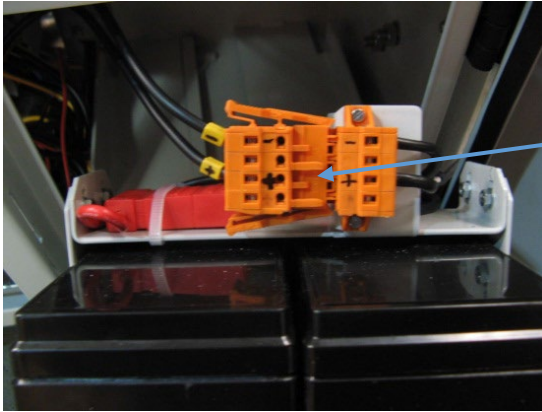
6.2 Process of connecting the charger

Charging the batteries is possible in two ways:

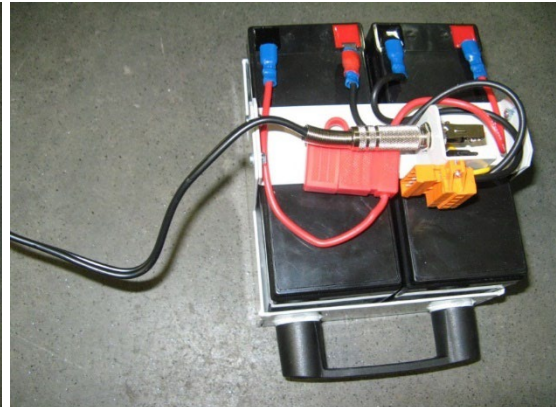
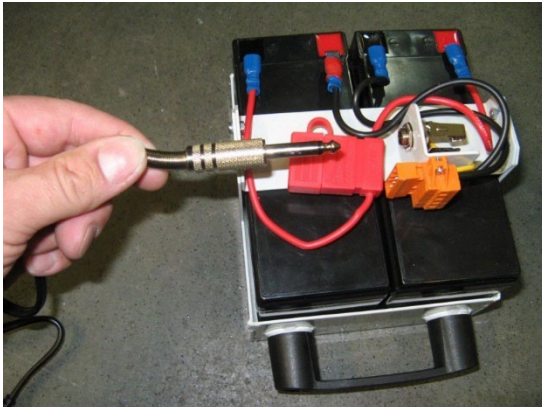
- 1 Connecting the charger with the external port. The battery does not need to be removed from the platform.



- 2 Connecting the charger to the battery pack with the auxiliary port. The battery needs to be removed from the platform and the charging is possible separately from the platform.



After removing the battery pack, it is necessary to disconnect charging connector.



When connecting the charger, always connect the charging connector to the battery pack or to the external charging connector first.

Then connect the charger to the socket 1 x 230 V 50/60 Hz

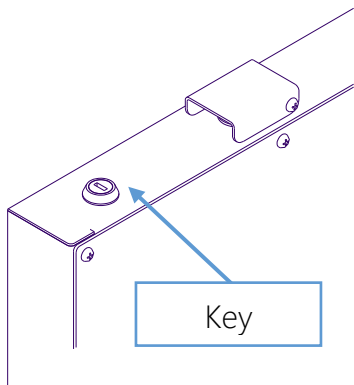


Green LED: end of charging, charged
Orange LED: charging process

7 CONTROL OF THE PLATFORM

The vertical lifting platform can be controlled safely and easily. The control should be entrusted to trained staff only.

7.1 Main switch - Key

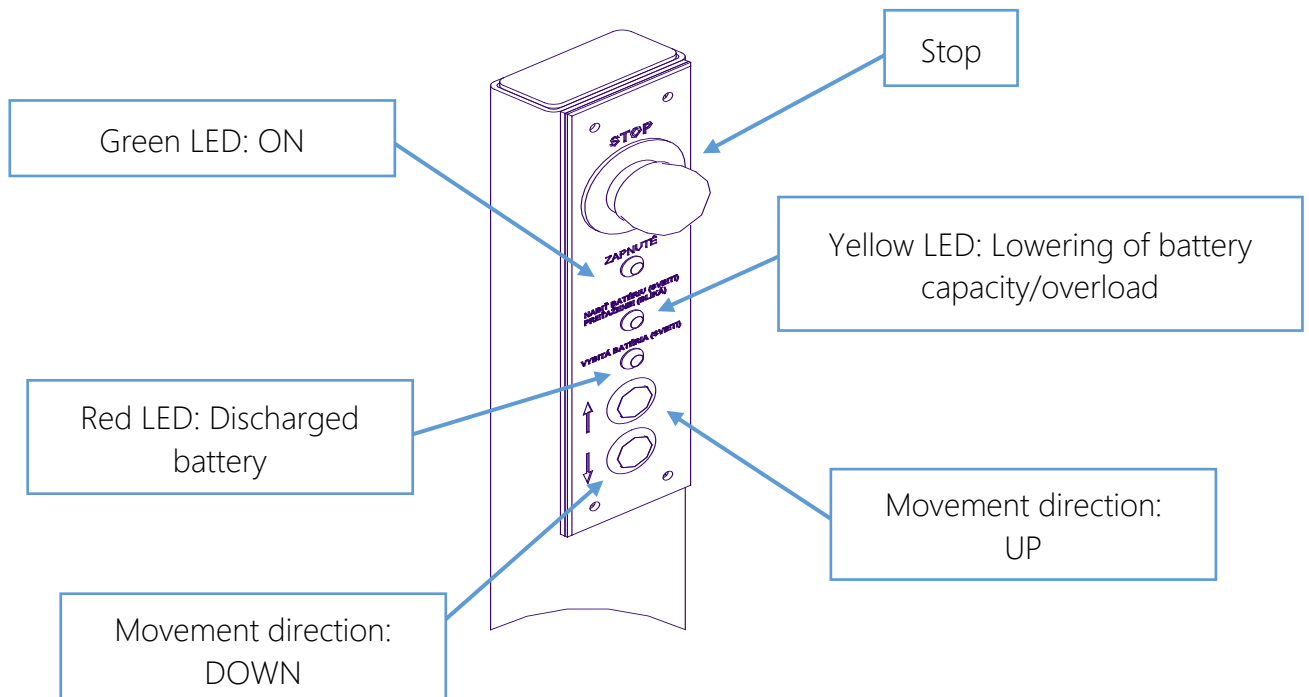


The main switch is placed on the right side of the lower construction of the platform. If you want to control the platform, the key must be in the ON position. When it is in the ON position, the green LED lights up on the control panel. By switching it off you avoid any unwanted action of the platform.

After switching off the main switch the charger for the battery is still under voltage! Before any operations on the device can be processed, it is necessary to disconnect the electric supply for the charger and to ensure safety using suitable measures.

Before the operating person can control the platform, please ensure that no person or obstacle is in the operating space.

7.2 Control panel on the platform



8 OPERATING INSTRUCTION

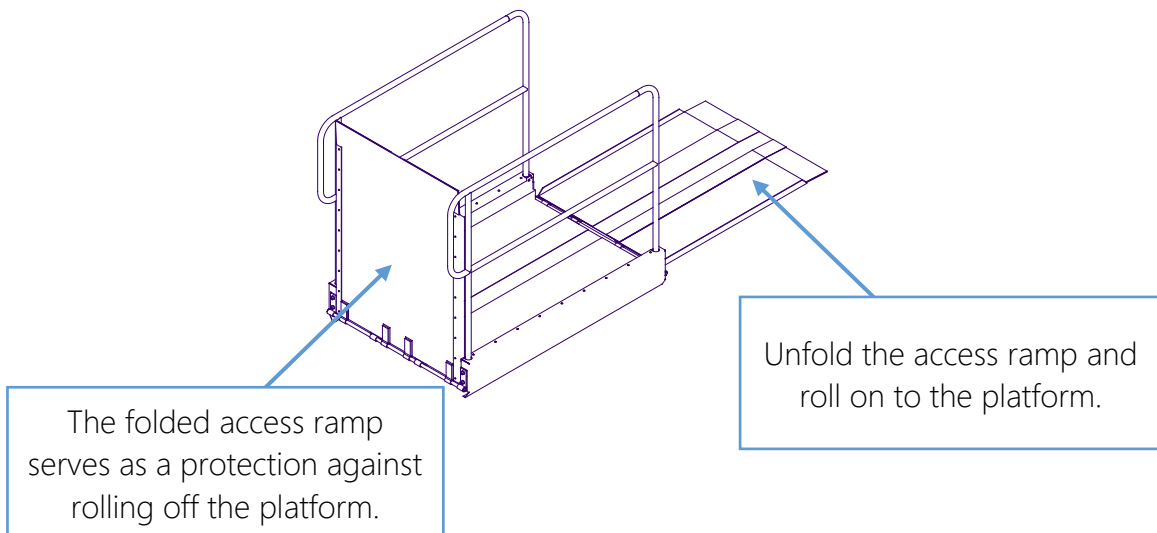
The platform must be fixed, which means that the transport wheels brakes have to be tightened. Check if it is possible to move the platform using the control panel. The control panel is located on the right side of the platform or on the lower frame. On the control panel are the emergency stop button, the buttons for the movement directions and the green, red and yellow LED signal.

8.1 Moving of the platform

8.1.1 Activation of the platform

- 1 Put in the key into the switch and turn it to the ON position.
- 2 The control circuit is activated.
- 3 The green signal LED lights up.
- 4 The movement of the platform can be interrupted if the STOP button gets pushed or if the lower safety frame is activated while the platform is moving down.

8.1.2 Activation of the access ramp



8.1.3 Now you can roll on to the platform

8.1.4 Put on the brakes of the wheelchair

The brakes of the wheelchair must be tightened to avoid rolling off the platform.

8.1.5 Now you can fold up the ramp

After you have entered the platform in the upper or the lower stop, the ramp must be folded up. When the ramp has been correctly closed and locked in place, it is possible to select the direction of movement on the control panel. The folded-up ramp serves as a barrier and avoids that the wheelchair rolls off the platform unintentionally.

8.1.6 Activate the control of the movement directions

By pressing the button, depending on the direction of the arrow (up or down), the green LED lights up. The platform moves while the button is pushed. When the button is released while the platform is moving, it stops, and it is only possible to continue the movement when a new choice

for the direction has been made. Once the platform has arrived in the lower or upper stop, it stops automatically and a trained person folds down the ramp, so you can leave the platform.

8.1.7 Fold up the ramp again

Once you have left the platform, it is necessary that you fold up the ramp again, so the next person can use it. If the ramp remains open while the platform is in the stop, it is forbidden to use the platform.

The safety floor stops the platform automatically, should you encounter an obstacle during the ride. To continue the ride, it is possible in the opposite direction only.

Behave calm during the ride, do not jump, do not move on the platform, and do not stretch your hands out of the platform barriers.

Make sure that you always have a good view when you are on the platform before you start moving and watch your surroundings during the ride. If there is a risk to bump into an obstacle with the platform, stop the platform instantly by letting go the direction button.

If the platform should continue moving after you have released the direction button, press the emergency STOP button. If you press the red STOP button, the platform stops immediately. To continue the ride, press the emergency STOP button once more.

8.2 Emergency stop and evacuation of persons

8.2.1 Emergency stop of the platform

The movement of the platform can be interrupted at any time by releasing the direction button. Another option is to press the red STOP button on the control panel in the event of an emergency. After pressing the STOP button, it remains blocked. It must be turned in the direction of the arrows to release it again. After the release of the stop button, it is possible to take up the ride again.

8.2.2 Emergency movement of the platform and rescuing of persons

In case of malfunction, it is necessary to evacuate the transported person. This can only be done by a trained person. It is necessary to properly assess the situation and to consider whether the platform must be moved manually or electrically. In this case, two situation models are described below.

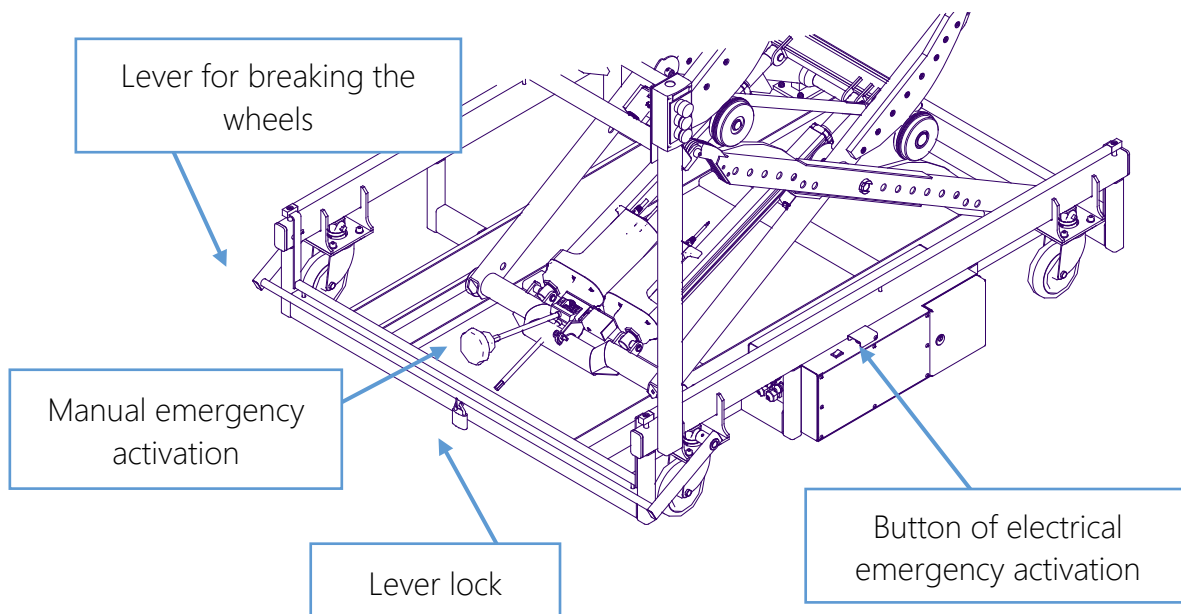
Attention: The evacuation of the transported person from the platform can be done by trained person only.

Situation 1 – Manual emergency lowering

- 1 Turn the key and remove it from the switch (interruption of the circuit).
- 2 Place the hand crank, the electric drive of the machine is blocked.
- 3 Rotate the hand crank. The direction of rotation is shown on the crank. Always turn in the direction that moves the platform into the lower stop.
- 4 It is possible to lower the access ramp manually.
- 5 The transported person can leave the platform now.
- 6 Call the customer service!

Situation 2 – Electrical emergency lowering.

- 1 Insert the key into the switch and turn it to the ON position. (Circuit is active)
- 2 Remove the cover from the emergency button
- 3 Press and hold the button. The direction is always toward the lower stop.
- 4 Once in the station, lower the ramp manually.
- 5 The transported person can leave the platform now.
- 6 Call the customer service!



8.3 Safety operational requirements

The design of the platform ensures for the transported person, as well as for a person who gets under the moving floor during operation, maximum security. The surface of the entire platform is smooth and has no rough areas, sharp edges or corners. The platform has an easy to reach and easy to use control.

The device is designed for a whole load of 300 kg (with evenly split charge). Such a loading prompts no damage to the platform and all safety standards are met.

The platform may only be transported from one place to another if it is located in the bottom landing.

9 GUIDE FOR OPERATION, MAINTENANCE AND SCRAPPING OF BATTERIES

9.1 Operation and maintenance

The vertical platform lift is delivered fully assembled.

The platform is ready for commissioning.

Please test the functionality of the platform and make records (use the provided protocol) after finishing the installation.

If the platform is fully built, adjusted, and lubricated, it is ready for use. Users are persons to whom all the features of the platform were shown and explained. Regular technical inspections must be carried out as stated in the contract. The platform may be used only by persons enrolled in operation. The review of the platform after installation and periodic technical inspections are carried out by a technician from the manufacturer or a licensed service company.

The platform must be kept clean and dry. Water with a small amount of detergent must be used for cleaning the outer parts. Before cleaning, the adapter must be disconnected from the power circuit. When the platform is installed outdoors, it must be ensured that there can be no accumulation of rainwater or snow beneath or in the area around the platform. This would lead to pitting on the metal parts.

9.2 Service life and operational conditions

The scheduled service life of the device is 5 years. After this period an inspection by the manufacturer must be carried out and according to the wearing out of the device mending to prolong the service life will be proposed.

The service life and functionality of the platform will be extended if the recurring checks will be made by the manufacturer or licensed service providers. The frequency of inspections depends on the frequency of use of the system. If the platform is used daily, two to four inspections are proposed annually. If the platform is used only occasionally, an inspection once a year is sufficient.

9.3 Operational conditions

The platform can be operated at temperatures from -20 to +45°C. The battery of the platform can be used only in normal environmental conditions according to CSN33 2000-5-51. The platform can also be placed outdoors and in areas that are not protected from rainfall.

The operating load amounts to max. 10%, which means 6 min / h.

9.4 Technical documentation

The technical documentation that is included with the platform must be complete, clear and always be in accordance with the design. The following technical documents are included:

- 1 Plan for lubricating the device
- 2 Drawing of the platform
- 3** Electrical plan

9.5 Scrapping of batteries

It is established by law that used batteries must be returned. The last user of an inoperable battery is required to hand it over to a business partner.

By fulfilling this obligation, the environment gets protected.

10 PACKING, DELIVERY, STORING, WARRANTY

The device is delivered in complete condition on a wooden pallet.

During transport the product must be protected against falling down, falling over and intense vibrations. The equipment must be transported in a closed vehicle. Another type of packaging must be agreed in advance and must be part of the contract.

If the unit is to be moved, it must be lifted only by grabbing at the lower frame, but not by grabbing at the platform.

The device must be stored in a clean, dry, dust-free and closed environment in which a temperature of -30 to +45 °C and a relative humidity of less than 80% prevails. Furthermore, it must not be exposed to chemicals.

The delivery of the product is based on a contract according to the following conditions:

- 1 The delivery and the place of delivery is stated in the contract.
- 2 The manufacturer is responsible for the function, material selection and design of the product and furthermore for the compliance of the stated values in accordance with the instructions for use and the maintenance. The manufacturer offers a quality warranty for the duration of the mentioned period. After the warranty period, the maintenance of the platform is guaranteed against payment.

11 DUTIES OF DEVICE OPERATOR

Before the device is ready for use, all necessary tests must have been carried out. Subsequent responsible persons must be trained and familiarized with the device. A written record of all these activities must be made.

It is necessary that at least two trained people are always fit for service. It must always be possible to smoothly evacuate a person in an emergency from the platform (e.g., in case of malfunction).

The operator of the device must keep the device always in perfect condition and must ensure that regular maintenance is carried out.

Any maintenance work can only be provided by a licensed service company or the manufacturer.

The device may be used only for the purposes for which it was designed.

All documents of the platform should be kept in a suitable place. They must be easily accessible for all responsible persons.

Free access to the platform must always be ensured, especially during an emergency, maintenance and inspections by the manufacturer or a licensed service company.

Please inform the manufacturer or a licensed service company about any problems or emergencies. Furthermore, also please inform them of any changes of the device, which could affect the safety of the platform.

12 ATTACHMENTS

12.1 Lubrication plan

Overview of parts that need lubrication:

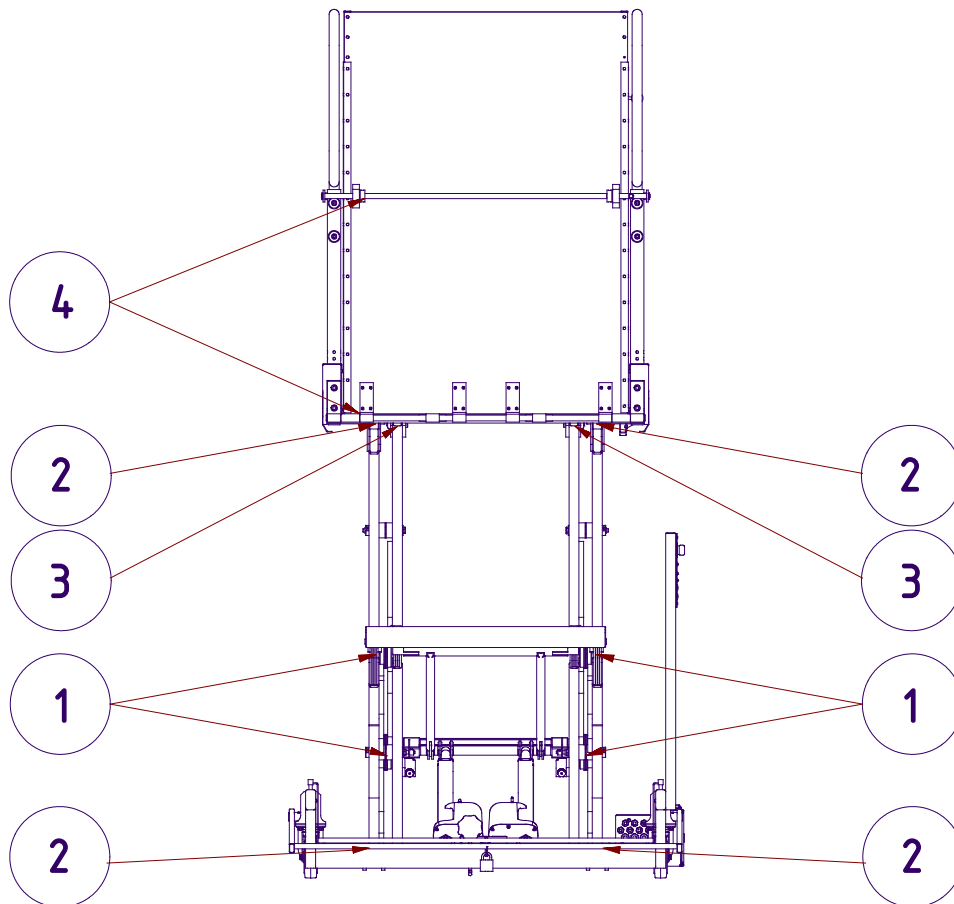
- 1 Shafts of transport wheels
- 2 Shafts of hinges
- 3 Shafts of travelling wheels of the cross
- 4 Hinges and shafts of access ramps

Frequency lubrication:

The frequency of lubrication must be chosen according to the frequency of use and also the length of the period between two inspections. If used occasionally – lubrication 1 x per year during the inspection is sufficient. In case the platform is used several times a day – lubrication 2x to 4x per year is necessary.

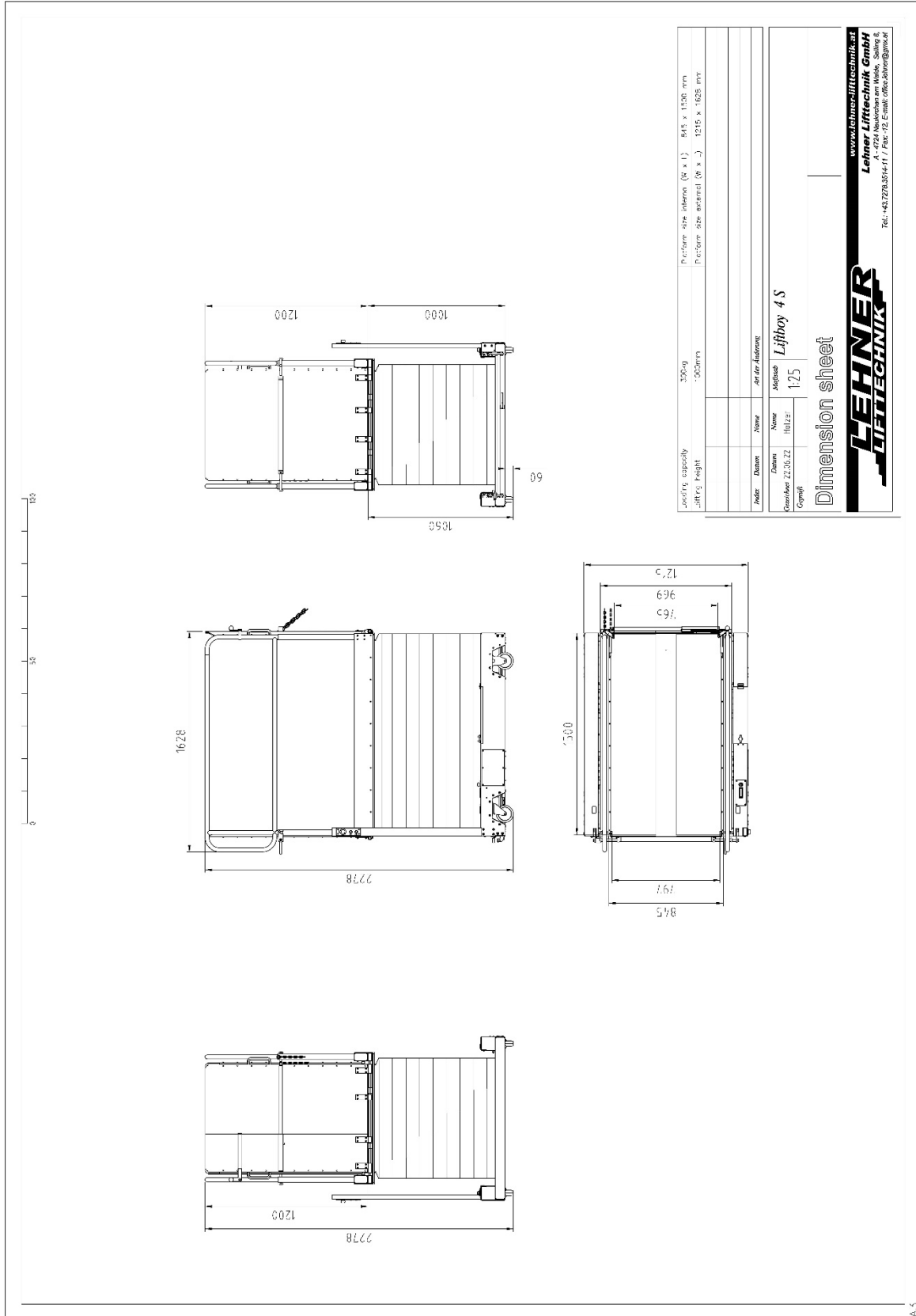
Recommended lubricating greases:

Vaseline Interflon Fin Grease MP00



12.2 Drawing of the complete platform

12.2.1 Liftboy 4 S



12.2.2 Liftboy 4 L

>Loading capacity	320kg	↳ platform side internal (W x L)	862 x 1410 mm
Lifting height	4000mm	↳ platform side external (W x L)	1188 x 1572 mm
Index		Art.-Nr. / Bezeichnung	
Hersteller		Name	
Material		Menge	
Erstellt am	22.06.22	Gezeichnet	Holzner
Geprüft		Skizze	
		Maßstab	LIFTBOY 4 L
		Vergrößerung	1:25

Dimension sheet

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