

Technical Specifications

Ratings	Specifications (Model Arnold)
Carrying capacity	Max. 150 kg
Total weight / unit	44.5 kg (without scale)
Ground clearance	3.0 cm (lower edge of base frame)
Switch-on time	1 min operation / 9 min. pause
Power supply req.	230V / 50Hz
Current	0.12A
Voltage	24 VDC via power network adapter
Battery unit	24V / 2.9 Ah (weight: 3.8 kg)
Protection class	IP X4
Ambient temperature	0 to + 65 °C

Factory Guarantee on Material Flaws

Linear drive unit	6 months
Electrical operating unit	6 months
Frame	24 months (wear parts excluded)

Technical specifications subject to change without notice!

Re-Use (Rental)

Here we refer expressly to the strict conditions of the German product liability law (ProdHaftG §1 Abs.2 Nr.1).

Advisory!

[Always keep the User Instructions in case of future use.](#)

The identical serial number in the User Instructions is also printed on the nameplate of the product. For complaints always provide the model, serial and the User Instructions no.



User Instructions

BA No.: 02.09.045/08-07(KP)



REBOTEC Rehabilitationsmittel GmbH

D-49610 Quakenbrück, Artlandstr. 57-59

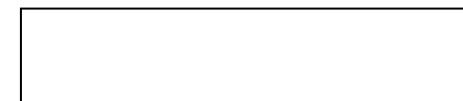
Telephone: +49-(0)5431/9416-0

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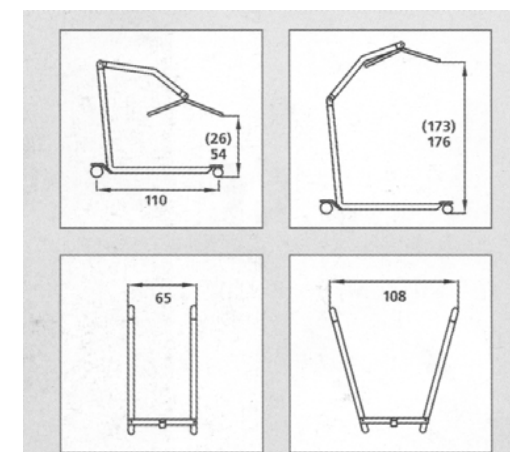
E-mail: info@rebotec.de

Serial No. / Product



Patient Lifter

Art. No. 320.00 "ARNOLD"



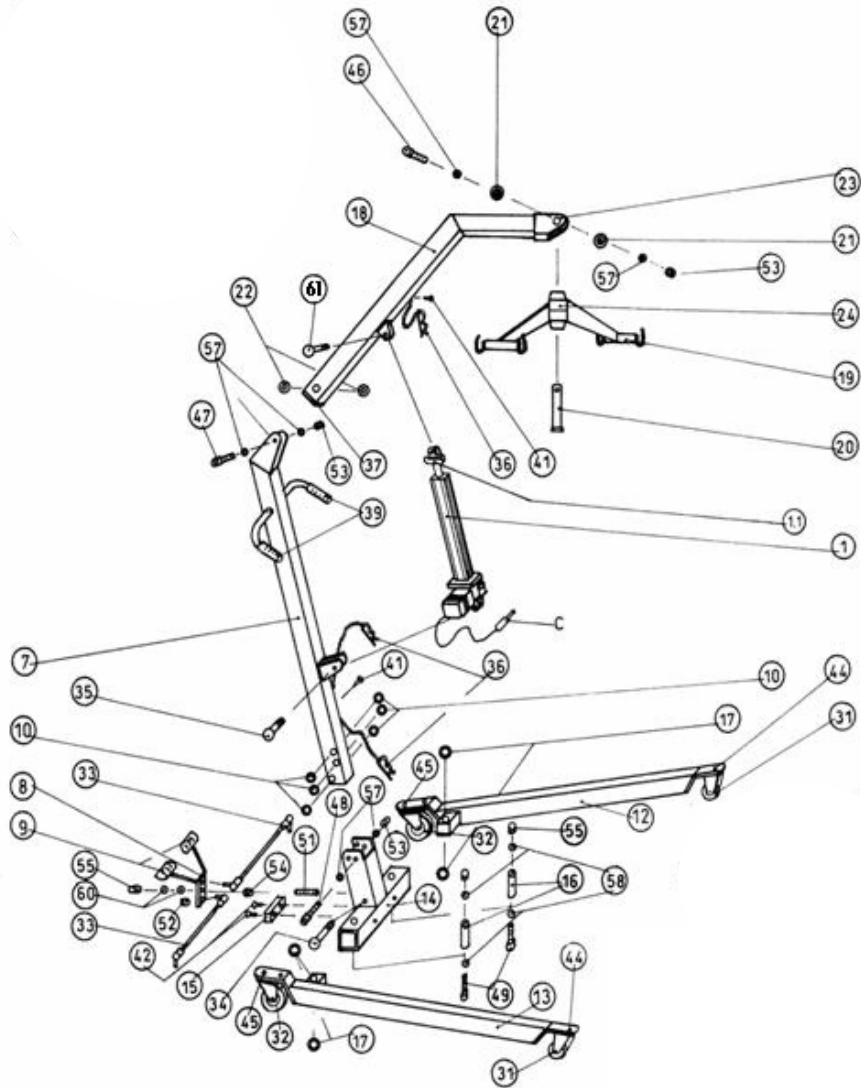
Values in brackets include the weighing scale.

Intended Use / User Advisory

The ARNOLD Patient Lifter with an electrical lift drive, electric jamming protection, and emergency mechanical lowering may be used for clinical and home applications. It is for lifting and moving persons who require special care. Various hoisting slings and harnesses are available for individual seating requirements and applications. Because it operates independently of external power sources, it is highly versatile. By activating a foot pedal, the transport base frame spreads apart and increases stability. Each rear swivel castor may be easily locked by foot via a locking lever. The arm may be moved upwards or downwards smoothly, without stepping motion, using the hand-operated switch.

Exploded View

Arnold



Charging the Battery

For charging the battery unit, first remove the protective cap from jack (A) of the control unit (2), insert the plug (A) in the jack and plug the power network adaptor (4) into the wall outlet. After about 6 hours, the charging is completed and the unit is ready for use. First disconnect the power network adaptor (4) from the outlet, remove the blade plug (A) from the jack (A) of the control unit (2) and cover the jack with the protective cap. The following LED functions will be displayed while connected to the power supply network:

LED	Function
Yellow	Power packs are charging, Power supply active. Advisory: If the loading cycle lasts more than 20 hours, then the battery or control unit is defective. Remove power network adapter from the power outlet!
Green	Power packs are charged, voltage at hand.
Dark	Voltage is not at hand.

Emergency Switch

In case of an emergency and in case the proper operation of the Lifter is faulty, the **emergency OFF button** must be activated. By pushing the red button (E) the emergency OFF is activated. To start up again, release the button by turning it to the left.

Lifting operation

Fully charged, the battery unit has a capacity of about 50 lift cycles. Operation directly from the power network is not possible. When the battery unit is almost uncharged, the LED blinks in yellow and an acoustic signal (peep tone) is given off in addition. One more lift cycle is possible. Now, at the latest, should the battery charging process begin.

Emergency Lowering

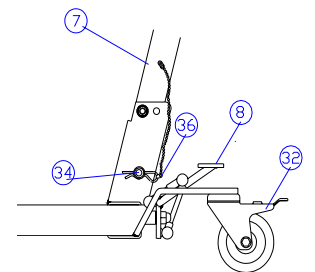
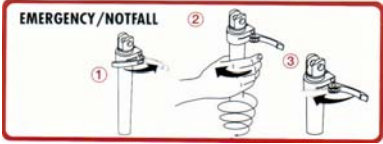
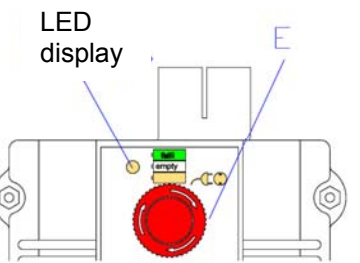
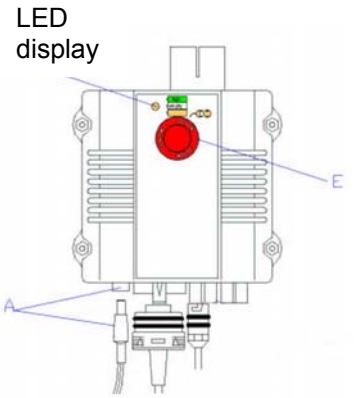
If the battery is dead or if there is a control unit power outage, there is in addition a mechanical emergency lowering at the linear motor. **Follow the instructions on the "Emergency" sign on the arm of the lifter.** Loosen the red lever (1) at the upper end of the linear motor. By turning the spindle (2) by hand you can now lower the arm. After having reached the desired position, the lever must be closed up again.

Spreading the Base

The pedal (8) allows the base members to be spread apart left and right, which allows easier travel to the place of use.

Brake locks

The rear swivel castors (32) are outfitted with locking brakes that allow the wheels to be locked.
Warning! Spread the support frame only when the swivel castors (32) are unlocked and free to move!





Safety Instructions for Handling and Operation

- The Lifter may be operated **only** by persons who are familiar or trained to operate it, and have the capability to operate the Lifter for helping persons in need of care.
- Do not attempt any lifting when the LED shows there's insufficient battery power.
- To charge up the battery unit, do not use the power supply adaptor in wet or humid rooms (bathrooms, shower rooms etc.).
- Before using the Patient Lifter, remove the charging unit and cover the connector jack with the protective cap.
- Before each lift, be sure that both swivel castors are securely locked and that the surrounding area is clear.
 - The Patient Lifter may be used only on solid, level surfaces. Use on sloped, slanted or inclined surfaces must be avoided due to the increased risk of an accident. Extra caution must be used whenever transporting a person in narrow passages and tight spots.
- The Patient Lifter may be used only for patient lifts that are necessary. The Patient Lifter is not for transporting patients.
- Abrupt moving and pushing actions as well as rocking the patient must be avoided due to the increased risk of an accident.
- **DANGER OF INJURY!** When using the Lifter with the scale, turn the patient with the sling and not with the scale. If this is possible – then have the Lifter checked over immediately.

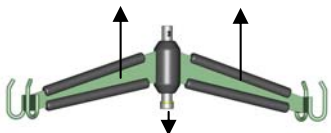


Maintenance, Inspection and Repair

- The surface is coated with a long lasting and durable powder paint coating. This allows easy cleaning with conventional cleaners and disinfectants.
- Do not spray the Lifter with water. Wipe with a damp cloth instead, and wipe dry.
- All moving parts are permanently lubricated and maintenance free.
- After assembling and before each start-up, a visual inspection for deficiencies and a check of all screwed connections for tightness must be carried out. In case of any doubt, do not use the Patient Lifter. Loose screws and bolts must be tightened with the appropriate tools. Inadequate or negligent care and maintenance leads to limitations or annulment of product liability by the Manufacturer.
- **The cause of accidents may include:** undetected wear or damage from improper handling. For safety reasons and preventing accidents, whose cause may be due to undetected wear or improper use, which can cause injury or damage, have the Patient Lifter check over at least once a year by a qualified dealer.



Every maintenance performed on the Lifter must be documented in the "Maintenance Book" (see supplement).
(If not present, then request it from REBOTEC: Maintenance Book - Lifter / BA No.: 01.10.066)



Important Maintenance Advisory!

The bolt and brass washer must be checked for wear every year. When pushing up the holder, the protrusion with the brass washer pushes through the opening of the rubber cap. When there's extreme wear, replace the brass washer.

Trouble Shooting		
Malfunction	Cause	Fix
Drive unit does not function	Emergency OFF is activated.	Rotate emergency OFF switch to release.
	Low charge protection of the control unit has activated. LED blinks yellow. Control unit gives acoustic signal when button is pressed.	Recharge battery, or replace it with a fully charged battery.
	No battery.	Install battery.
	No battery connection.	Correctly install battery and check its position.
	Bad connection in the control unit plug.	Check the plug/jack of the control unit. Insert again.
	Bad drive unit connection.	Check motor connection. Insert once again.
	Faulty drive unit cable.	Check cable. If necessary, replace drive unit.
Battery does not charge	Battery is full. (Display: LED "GREEN")	Battery can start again after briefly removing power supply or the battery.
	Battery not installed, or not completely installed. (Display: LED "GREEN")	Install battery and check position.
	Display is dark.	Check power supply adapter for a good connection.
Check power cable for damage.		
Drive unit switches off during operation	Check power supply for damage.	
	Drive unit is overloaded.	Reduce load on the drive unit.
	Batteries are empty. LED blinks "YELLOW". (Low battery charge protection - battery).	Recharge battery, or replace battery.
Drive unit switches off during operation	Jamming protection is activated.	Re-establish contact to the bolts.

5. Maintenance Overview - Patient Lifter

General Information

BL No.:		Year of Manuf:		Serial No.:	
Maintenance must be performed annually!					

Maintenance Overview

Date	Maintenance Co. Telephone, City	Parts replaced	Signature

If the Overview is full: then order a new Maintenance Book!



User Instructions

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Maintenance Book for Patient Lifter and Sling System



1. Basic Maintenance Principles
2. Checking Instructions for Sling Systems
3. Inspection Sheet - Sling System
4. Maintenance Instruction for Patient Lifter
5. Inspection Sheet - Patient Lifter

1. Basic Maintenance Principles

1.1 Product Classification

Lifters are Class I medical products as to the §3,1b MPG and the 93/42 EWG, Article 11 directive (regulates the requirements for Class I medical products). The equipment must comply with the applicable product norms (EN ISO 10535) and a Declaration of Conformity must be provided by the Manufacturer.

1.2 Maintenance and Inspection Requirements

As to the requirements of the Medical Equipment Operator Ordinance and the EN ISO 10535 product norm, systems for transporting persons must be checked over and maintained as needed by a qualified specialist, **minimum once a year**. Inspection results must be documented (Inspection Sheet with copy to the customer) and confirmed with a signature. The operator is responsible for determining the frequency of the inspections, also when a maintenance and service contract has been made with the Lifter manufacturer.

1.3 Maintenance Scope

The inspection of the equipment includes the general condition of the Lifter and accessories, as well as the condition of the single equipment components. Necessary repairs must be done immediately. If an immediate repair is not possible, then it is in the user's best interest and for the patients' health to take the machine out of commission.

1.4 Qualified Personnel

A qualified specialist for conducting regular inspections is a person with sufficient knowledge and experience to competently judge the condition of equipment for transporting persons and the technical effectiveness of the systems and pertinent regulations.

These include for example educated master craftsman or mechanics of the Manufacturer, or authorised persons from the dealerships who have proof of expertise from the Manufacturer. Electrical testing may be conducted only by a qualified electrical specialist as to BGV A2 / VDE 0751. It is the Manufacturer's judgement when he contracts out the inspection of a system for transporting persons, to the extent the involved person fulfils the requirements.

It must be expected of the specialist that he can make an objective assessment with regards to safety when submitting his evaluation - completely independent of company or economic circumstances.

1.5 Scope of Inspection

1. Patient Lifter with frame and rotation bow.
2. Electrical components such as charging unit, motors and keypads (as to VDE 0751).
3. Load carrying components such as slings and transport frames.
4. Special equipment (e.g. patient scales for weighing).

4. Maintenance Instructions for Patient Lifter

General Information

Customer				Cust. No.	
City			Street		
Model		Ser. No.		Yr. of Manuf.	
Charging unit:	Controller type:		Keypad cable: Y / N		

Maintenance - Inspection

P	Article	Work Scope	Finding	Replace
1.	Spindle motor	Function		Yes / No
2.	Stop up/down	Function		Yes / No
3.	Lifter scale	Function, hanging, calibration		Yes / No
4.	Emerg. lowering	Function		Yes / No
5.	Drive motor	Function		Yes / No
6.	Rotating bow	Fasteners, wear, rotability, screws, load bearing		Yes / No
7.	Boom	Hoisting function, wear		Yes / No
8.	Column	Fasteners, seat chassis		Yes / No
9.	Spreading	Wear, ease of motion		Yes / No
10.	Chassis	Wear, brakes, steering, fasteners		Yes / No

Visual Inspection

P	Function	Work Scope / Check	Finding	Replace
1.	Seat Sling	Check instruction, sling system		Yes / No
2.	Lifter	Welded joints, changes		Yes / No
3.	Paint condition	Check rust protection		Yes / No
4.	Protect, caps	Completeness, firmly seated		Yes / No
5.	Bolts - support	Wear, play		Yes / No

All moving joints may be minimally lubricated with fine oil (free of resin).

Function Check

Inspection (as to BGV A2 VDE 0751) to be done only by a qualified electrician.

Inspection report written: Yes / No

Spare Parts

Pcs.	Spare Part

Date

Signature

Company

Customer

2.5 Information

- Contact your dealer for further information.
- Patient support devices, esp. slings, should be replaced once a year.
- Write down the date of purchase and the date of first-time use.
- Contact your dealer at the end of the year. He can tell you if a replacement is necessary.



A damaged patient sling must be replaced immediately!

Advisory!

Always use the equipment's or component's User Instructions when carrying out maintenance and follow its instructions for maintenance and safety.

3. Inspection Sheet – Sling Systems

General Information

Model / Size		Purchased on:	
Location:		In operation on:	
<i>Inspection must be performed at least once a month!</i>			

Inspection Overview

No.	Inspection Date	Inspected by:	Result
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

3. Inspection Sheet – Sling Systems

General Information

Model / Size:		Purchased on:	
Location:		In operation on:	
Inspection must be performed at least once a month!!			

Inspection Overview

No.	Inspection date	Checked by	Result
1			
2			
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12			

2. Inspection Instructions for Sling Systems

2.1 Inspection Sheet

The Inspection Sheet is for documenting the condition of the fabric, seams and sling. The sling must be carefully inspected every month by a responsible and competent specialist, or more often depending on the frequency of use. The result of the patient sling inspection must be written down on the inspection sheet and signed. Furthermore, the sling should also be checked over by the user every time it is used.

2.2 Checking the Fabric and Sling

General Exterior Wear

In general use this is unavoidable, and is visible by slightly fuzzy surface of fibres. This is not serious, unless it is extensive.

Localised Wear

This can be caused by rubbing the fabric against sharp edges or protrusions. Small damage to the external fibres may be considered as still safe for use. However, more serious cases, especially reduction in width or thickness, or damage to the fabric must lead to an immediate replacement of the patient sling.

DANGER!

Cuts, holes or burned spots in the fabric are potentially dangerous and must result in the immediate replacement of the patient sling.

Chemical Effects

Oil, grease or paint spots may be accepted, but other types of chemical effects may lead to a certain degree to deterioration or weakening of the fabric. They can result in the fibres being worn away (in extreme cases to be like powder). Always avoid sprays, vapours or gases of acids and alkaline or organic solvents.

Advisory!

If you suspect contaminants, wash the patient sling thoroughly in warm water. Avoid contact to excessive heat, which probably will adversely affect the patient sling.

2.3 Inspecting Accessories

Accessories include: carabines, chains, D and O rings, hooks, clasps, etc. - carefully check over all accessories for smooth function and for signs of corrosion, warpage and cracks. Hooks and carabines must be checked for smooth operation and whether the mechanisms open and close easily. Check over clasps for smooth functions and sharp edges or burrs that may damage the fabric.

2.4 Inspection of Seams

Check seams for tears, unravelling or bad stitches. Replace every patient sling that has worn out fabric or torn seams.

3. Inspection Sheet – Sling Systems

General Information

Model / Size:		Purchased on:	
Location:		In operation on:	
Inspection must be performed at least once a month!			

Inspection Overview

No.	Inspection date	Inspected by	Result
1			
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