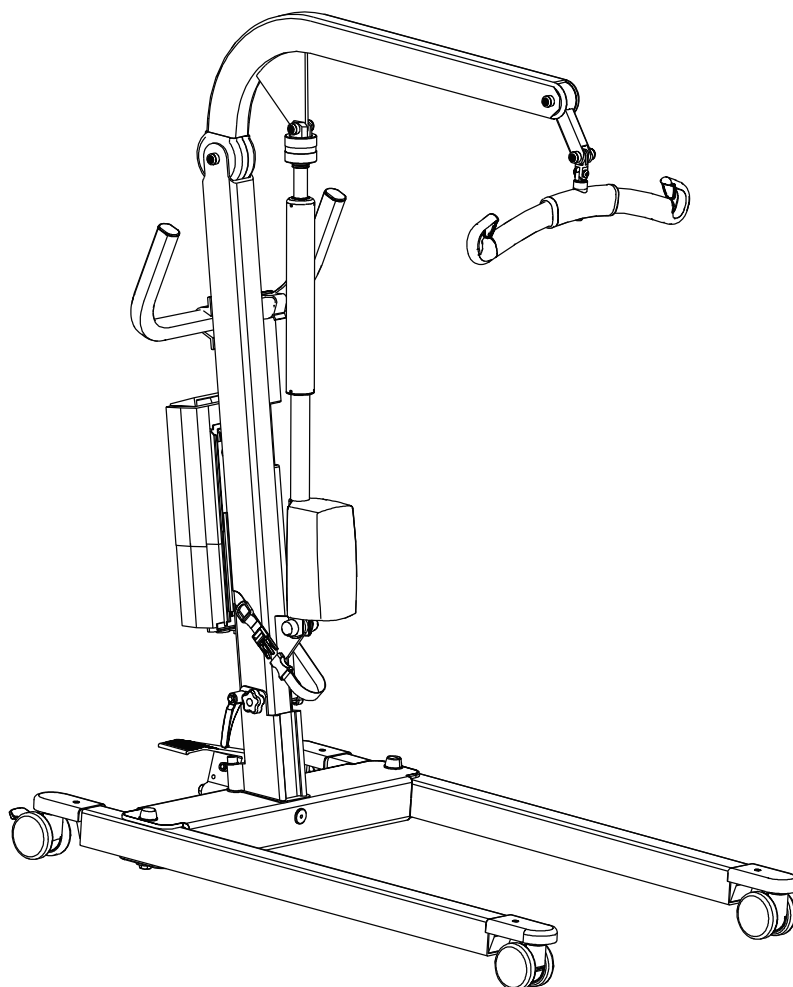



Service Manual

Product No.

2030001 LikoLight™ (*Discontinued 2017*)

2030001H LikoLight™, large wheels (*Discontinued 2014*)



 *In this document, this warning symbol indicates that special care should be taken.
If instructions are not followed there is a risk of serious injury to patient or caregiver.*

Spare part statement

Liko AB will as manufacturer of stationary & mobile lifts keep spare parts available
for 10 years after the last manufacturing date of the product.
Spare parts are available in the spare parts list or in the Service Manual for each model of lift.
Components (manufacturing parts) are not available after last manufacturing date.

Repairs and maintenance may only be performed by personnel authorized by Hill-Rom
and using original Liko™ spare parts.
For information regarding Service and Maintenance education, contact your Hill-Rom representative.
For contact information please visit our websites: **www.hill-rom.com / www.liko.com**

Table of Contents

LikoLight™ mobile lift

	<u>Page</u>
1.0 Technical Data.....	5
2.0 Troubleshooting.....	6
3.0 Spare Parts Assembly information	7
4.0 Spare Parts List	8
5.0 Periodic Inspection Information.....	12
6.0 Preventive Maintenance	13
7.0 Product Changes.....	14

1.0 Technical Data LikoLight™ mobile lift

Maximum Load: 140 kg (300 lbs.)

Lifting speed: 3,8 cm/s without load

Batteries: 2 pcs. 12 V 2,9Ah valve-regulated lead acid gel-type batteries.
New batteries available from supplier.

Battery charger: Wall-mounted charger, 100-240 V, 50-60 Hz, 400 mA

Motor (mast): 24 V 6A, Fabr. Linak, permanent magnetic motor with mechanical safety mechanism and safety nut.

Wheels: Front: 75 mm twin
Rear: 75 mm twin, brake equipped

Weight: Base: 10 kg (22.1 lbs.)
Lift mast: 9 kg (19.8 lbs.)
Control unit incl. battery pack + handcontrol: 4 kg (8.8 lbs.)


Material: Aluminium


Emergency lowering: Mechanical (patented) and electrical

Intermittent operation: Int. Op. 10/90, active operation max 2 min. Out of a time of 100, active must be less than 10, though not more than 2 min.

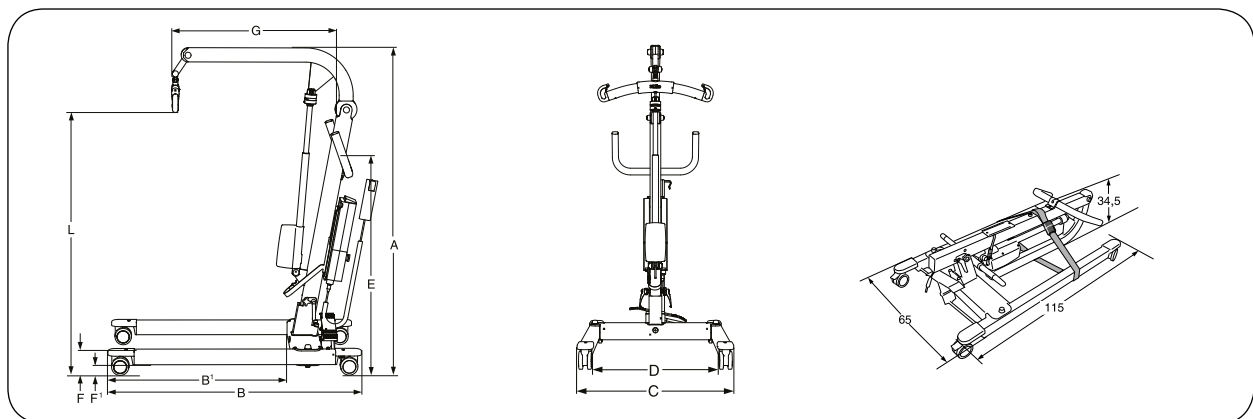
Degree of protection: IP 43

 Built for indoor operation.

 Type B, according to the degree of protection against electric shock.

 Class II equipment.

Measurements



LikoLight	L		A		B	B'	C	D	E	F	F'	G		Weight Tot.	Turning diameter
	Max	Min	Max	Min								Max.	Min.		
A:	156	26	176	118	115	81	65-108	51-96	97	11	3.2	72	50	23	127
B:	61.4	10.2	69.3	46.5	45.3	31.9	25.6-42.5	20-37.8	38.2	4.3	1.3	28.3	19.7	50.7	50

A: Max. load and weight in kg. Measurement in cm.

B: Max. load and weight in lbs. Measurement in inch.

2.0 Troubleshooting LikoLight™ mobile lift

The lift does not work (up/down)



1. Check that the emergency stop button is not pushed in.
2. Check that the cables to the handcontrol and lift motor are connected correctly.
3. Check the battery charge level (see display on control box).
4. Check that the battery contact plate is not defective or broken off.
5. If the lift still does not work satisfactorily, contact Hill-Rom.

Battery charging does not work



1. Check that the charger is plugged into the wall socket.
2. Check that the battery contact plate is not defective or broken off.
3. If the charger still does not work satisfactorily, contact Hill-Rom.

The lift stops in the elevated position



1. Check that the emergency stop button is not pushed in.
2. Use the emergency lowering device (marked).
3. Check that the battery is charged.
4. *If the lift still does not work satisfactorily contact Hill-Rom.*

If you hear unusual sounds



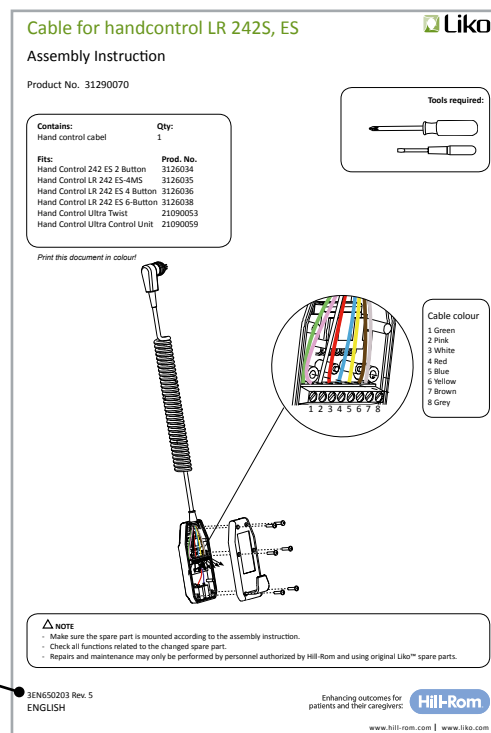
Contact Hill-Rom.

3.0 Spare Parts Assembly Information

INFORMATION

Assembly Instructions to Liko™ spare parts are attached with the products.
The assembly instructions are also available in Agile and on the Partner Web.
Document number to spare parts assembly instructions can be found in the spare parts list.

Document Number



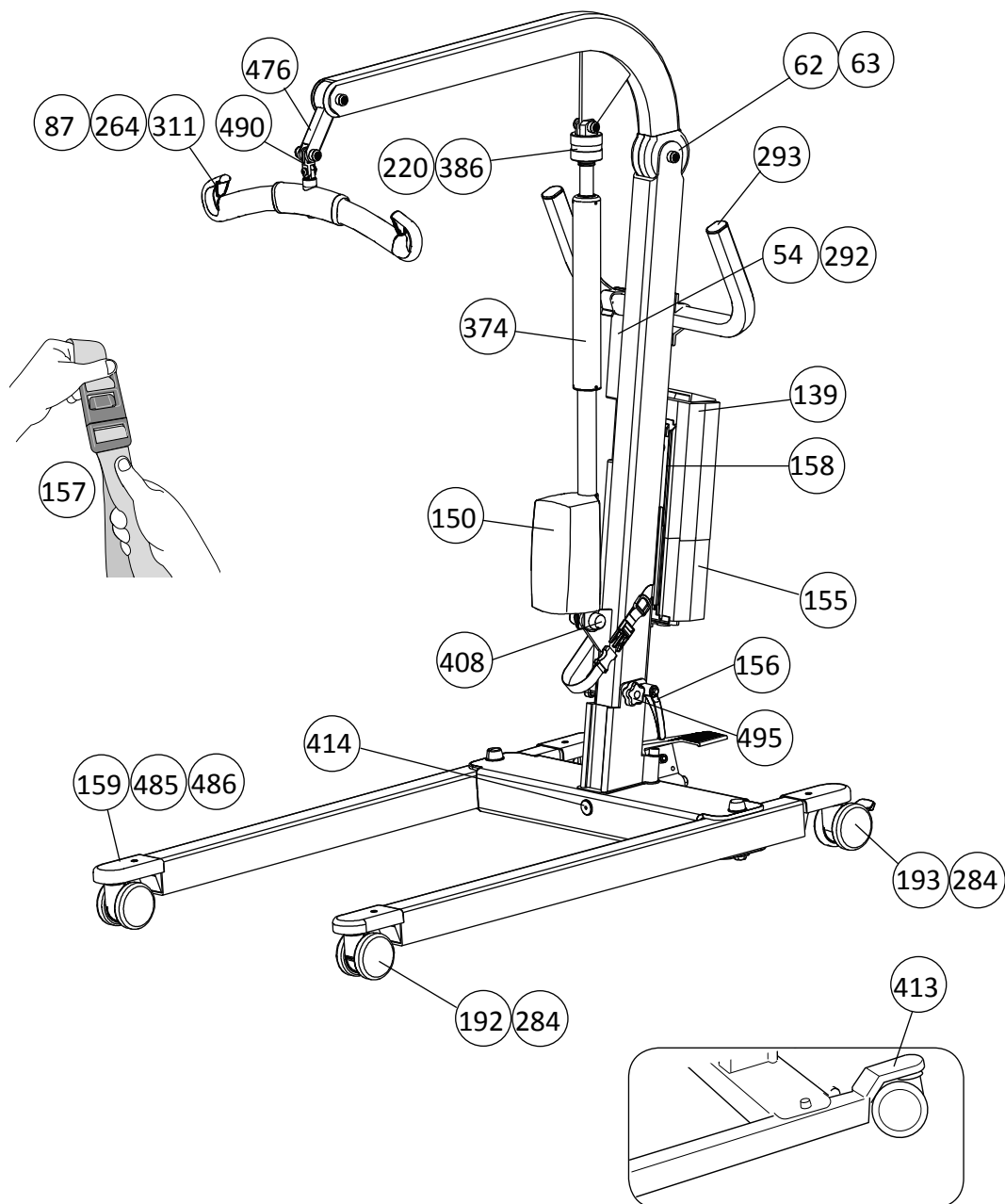
△ NOTE

- Always make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.

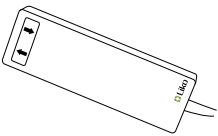
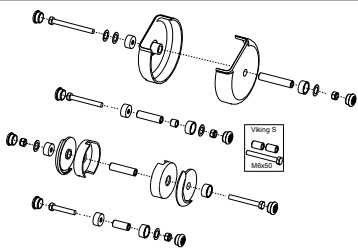
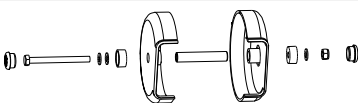
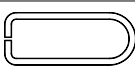
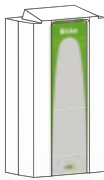
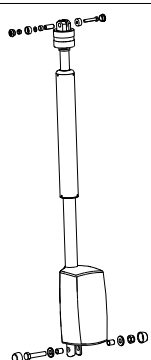
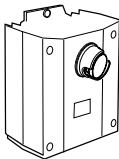
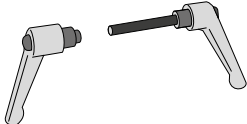
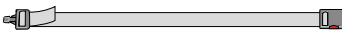
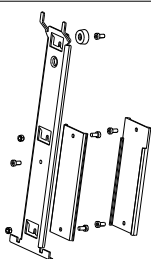
Liko™ technical documentation can be found under “My information” - “Documents” on the Partnerweb:
<https://partner.liko.com/> If you don't have access, send an mail to: se.customer.service@hill-rom.com

4.0 Spare Parts List, LikoLight™ mobile lift

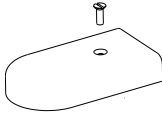

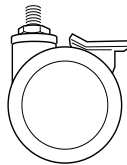
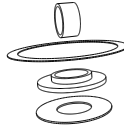






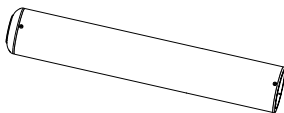
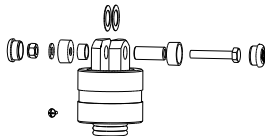

PROD. NO.	PRODUCT
2030001	LikoLight (<i>Discontinued 2017</i>)
2030001H	LikoLight, large wheels: 100/125 (<i>Discontinued 2013</i>)



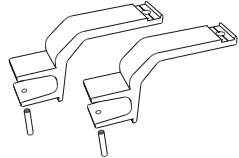
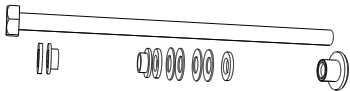
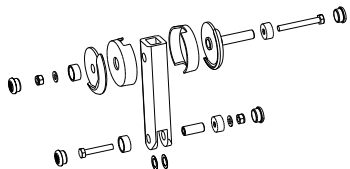
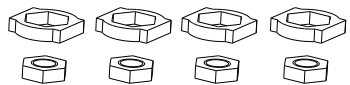
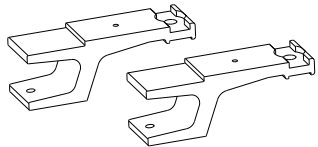
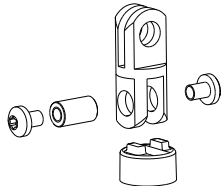
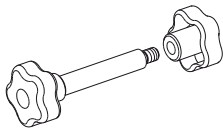
4.0 Spare Parts List, LikoLight™ mobile lift

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20190016	54	Hand control EM 2-Button	pce		3SE630204
20190044	62	Overhead Beam Restoration set	set		3SE630202
20190045	63	Lift Arm Plastic Cover	set		3SE630211
31190018	87	Latch	pair		3EN640271
2006106	139	Battery Lead Acid	pce		3EN630224
20390008	150	Actuator LikoLight	pce		3SE630291
20390007	155	Control Box LikoLight	pce		3SE630223
20390003	156	Locking Handle	set		3SE630288
20390004	157	Conveyor Strap	pce		3SE630289
20390005	158	Attachment for Control Box LikoLight	set		3SE630290

4.0 Spare Parts List, LikoLight™ mobile lift

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20390006	159	Fork Cover	pair		183916
20490003	192	Front Wheel 100 mm <i>Fits 2030001H, LikoLight™ large wheels</i> <i>We recommend replacing both wheels, as there are two different versions that can vary in appearance. (dimension is the same)</i>	pce		3SE630293
20490004	193	Rear Wheel 125 mm <i>Fits 2030001H, LikoLight™ large wheels</i> <i>We recommend replacing both wheels, as there are two different versions that can vary in appearance. (dimension is the same)</i>	pce		3SE630294
20190051	220	Restoration set Emergency Lowering	set		3SE630222
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
20490014	284	Front Wheel 75 mm Standard <i>From S/N 2503102</i>	pce		182904
20490015	285	Rear Wheel 75 mm Standard <i>From S/N 2503102</i>	pce		182903
20090058	292	Hook for Hand control 2,4,6	pce		3SE630210
20090066	293	End Cover Handle/Arm Support grey, 4 pce	set		3SE630271
31590014	311	Latch, composite <i>Fits Universal SlingBar from S/N 1299511</i>	pair		3SE640242
20390017	374	Outer Tube LA32, 310 mm	pce		3SE650237
20390018	386	Emergency lowering	set		3SE650245
20190072	408	Lower Actuator attachment	set		3SE650257

4.0 Spare Parts List, LikoLight™ mobile lift

PROD. NO.	POS. NO.	NAME	UNIT		ASSEMBLY INSTR.
20490037	413	Rear Wheel fork	pair		3SE650264
21090036	414	Attachment base adjustment	set		3SE650266
20190074	476	Flexlink Alu	set		3SE650297
20090080	485	Fork locking attachment, 4 pair	set		3SE690208
20090081	486	Wheel Fork	pair		3SE690209
20490052	490	SlingBar Assembly set	set		3SE690210
20390019	495	Guide Screw	set		3SE690216

5.0 Periodic Inspection Information, LikoLight™ mobile lift

According to ISO 10535:2006 Annex B, Periodic Inspection of medical device Liko™ mobile lift should be performed at least once a year. For Liko™ mobile lifts Periodic Inspection Liko™ mobile lifts 3EN371001 is available on the Partner Web (and internally in Agile)

Periodic Inspection
Liko™ mobile lifts
Liko™ sit-to-stand lifts
3EN371001 Rev. 3

Valid for following lifts: Viking™, Goliath™, Liko™, Liko™ 102/103/105, LikoLight™, Sabina™, Sled™

Lift Information		Customer Information	
Lift		Registered No.	
Product Number		Name	
Serial Number		Address	
Production year		Post Code	

△ Liko™ lifts must be thoroughly inspected when the Service light at the Control Unit illuminates (if applicable) or at least once per year. Inspection and service must be carried out by Hill-Rom authorized personnel.

To track how the lift has been used, write down the values from the control unit (if applicable):

Control Unit CBU:
If the Service light (SL) or Liko Diagnostic System (LDS) are available, data can be read from the display of the Control Unit CBU. If not, write down the data shown on the values in the form below.

Control Unit Jumbo Care:
Read the display, write down the data in the form below.

Expected life	
Control Unit CBU:	Control Unit Jumbo Care:
Viking™ mobile lift 700 Ah	Viking™ mobile lift 2 520 000 Ah
Viking™ mobile lift 900 Ah	Viking™ mobile lift 3 270 000 Ah
Viking™ mobile lift 1020 Ah	Viking™ mobile lift 3 620 000 Ah
Goliath™ mobile lift 700 Ah	Goliath™ mobile lift 2 520 000 Ah

If the control unit is replaced the total Ah or the total Ah control unit for the control unit but not for the mobile lift.
The mobile lift has an expected service life of 10 years when correctly handled.

Inspection sign off
Complete inspection according to Instructions for the check points (page 3-6), fill in page 2 and sign below:

Approval to use the mobile lift: ☐ Approved ☐ Not approved

If the mobile lift has one or more inspection points "Not approved", the lift must not be used.
To be authorized: Actions according to the "INSPECTION (FOLLOW-UP APPROVAL)" should be performed immediately. After performed actions sign below. If anything is unclear or if you have questions, please contact Hill-Rom or your local Hill-Rom representative.
Contact information to be found at www.hill-rom.com.

Inspection performed by: _____ Date: _____

Next inspection: _____

Inspection performed in accordance with ISO 10535:2006 Annex B Periodic inspection
△ In this document, the warning symbol indicates that special care should be taken.
If instructions are not followed there is a risk of serious injury.

Hill-Rom

NOTE!

△ Periodic Inspection shall be performed at least once per year.

INFORMATION

Liko™ technical documentation can be found under "My information" - "Documents" on the Partnerweb: <https://partner.liko.com/> If you don't have access, send an mail to: se.customer.service@hill-rom.com

Periodic Inspection may only be performed by personnel authorized by Hill-Rom and using original Liko™ spare parts.

Available Liko™ Periodic Inspections:

- 3EN371001 Periodic Inspection Liko™ Mobile lifts
- 3EN111001 Periodic Inspection Liko™ OH Rail system
- 3EN191001 Periodic Inspection Overhead Lifts
- 3EN301001 PI Freespan Freestand
- 3EN601001 Periodic Inspection Liko™ accessories

Also available is Periodic Inspection Slings. This inspection should be performed by a person who is suitable, has good experience and sufficient knowledge about design, use and maintenance of the sling.



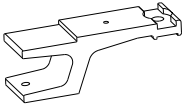
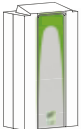

- 7EN160834 General Periodic Inspection Protocol Liko™ Slings and Sabina SupportVests

6.0 Preventive Maintenance, LikoLight™ mobile lift

Expected Life Time

The expected life time of a LikoLight™ mobile lift is 10 years of normal use provided that required Periodic Inspection and Preventive Maintenance is performed by personnel authorized by Hill-Rom and using original Liko™ spare parts. However certain parts have a shorter life cycle and will need to be replaced in order for the mobile lift to meet its expected life time. They are listed below:

Parts that needs to be replaced:

Part		Part No.	Replacement interval:	Replacement:
Front castors		20390001 or 20490014	5 years	Can be used more than 5 years if no malfunction is detected.
Rear castors		20390002 or 20490015	5 years	Can be used more than 5 years if no malfunction is detected.
Forks		20090081 or 20490037	5 years	Can be used more than 5 years if no malfunction is detected.
Battery Lead Acid		2006106	3 years	Can be used more than 3 years if no malfunction is detected.
Hand Control		20190016	2 years	Can be used more than 2 years if no malfunction is detected.

Expected Life Time	Product No.	Year
LikoLight™ mobile lift	2030001	10
LikoLight™ mobile lift, large wheels	2030001H	10

Prod. No. 2030001

Product changes	S/N	Project
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2017

LikoLight™ mobile lift is obsoleted.	-	MOD005301
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2015

Instruction in PI and PM regarding the mark on the SlingBar bolt, is removed.	-	-
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2013

Wheel Spare Parts 20490003 and 20490004 to LikoLight large wheels 100/125, Prod No. 2030001H are added in the spare parts list	-	-
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2013

LikoLight, large wheels 100/125, Prod No. 2030001H is discontinued.	-	1933
ETL ended.	-	-

2012

CE ended.	-	-
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2009

OuterTube with new spring. Washers removed from pivotpoint arm-mast-actuator according to R3053502-6	2506105	1067
LikoLight produced with OuterTube	2505826	1067
New version of travelbag. Spareparts to old version discontinued	-	907

Prod. No. 2030001

Product changes	S/N	Project
-----------------	-----	---------

2007

LikoLight produces with latches of steel (901335192)	2504426	619
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2006

Loctite at the leg opening and closing linkage	-	492
LikoLight Travelbag introduces	-	489
New composite hook and latches. The latches has been redesigned. The new design is sprung.	-	467
Sealing, emergency lowering. The seal colour is registerd as a sparepart.	2504157	408
Arm and handles. The mast is redesigned. The attachement for the handle is mounted in a threaded hole at the mast.	2504054	418
New casings in pivot points - same as the Viking productions.	2503593	373
Leg opening and closing pedal redesigned with rounded edges.	2503548	364



www.hill-rom.com | www.liko.com



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Enhancing outcomes for
patients and their caregivers:

Hill-Rom