

# LikoLight

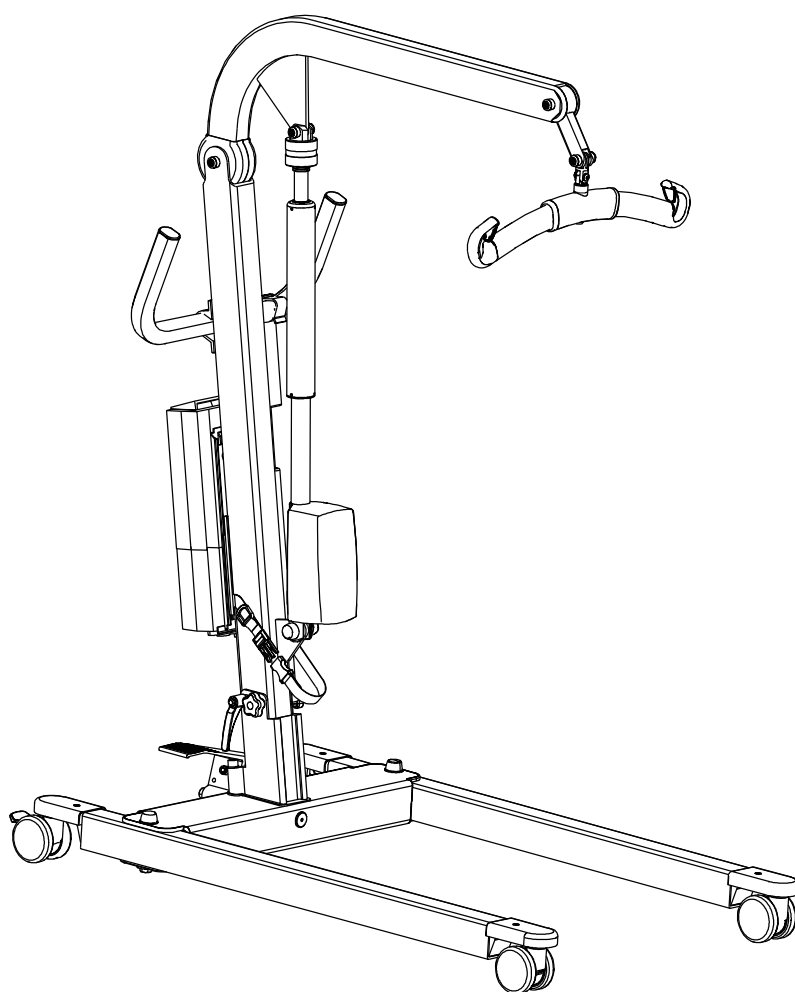
## Service Manual

English

Prod. No. 2030001

3EN450401-03  
2009-08-05

Proj: 907, 1067





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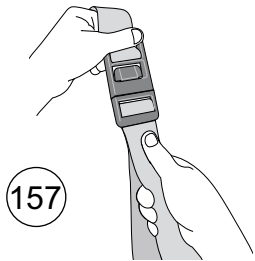
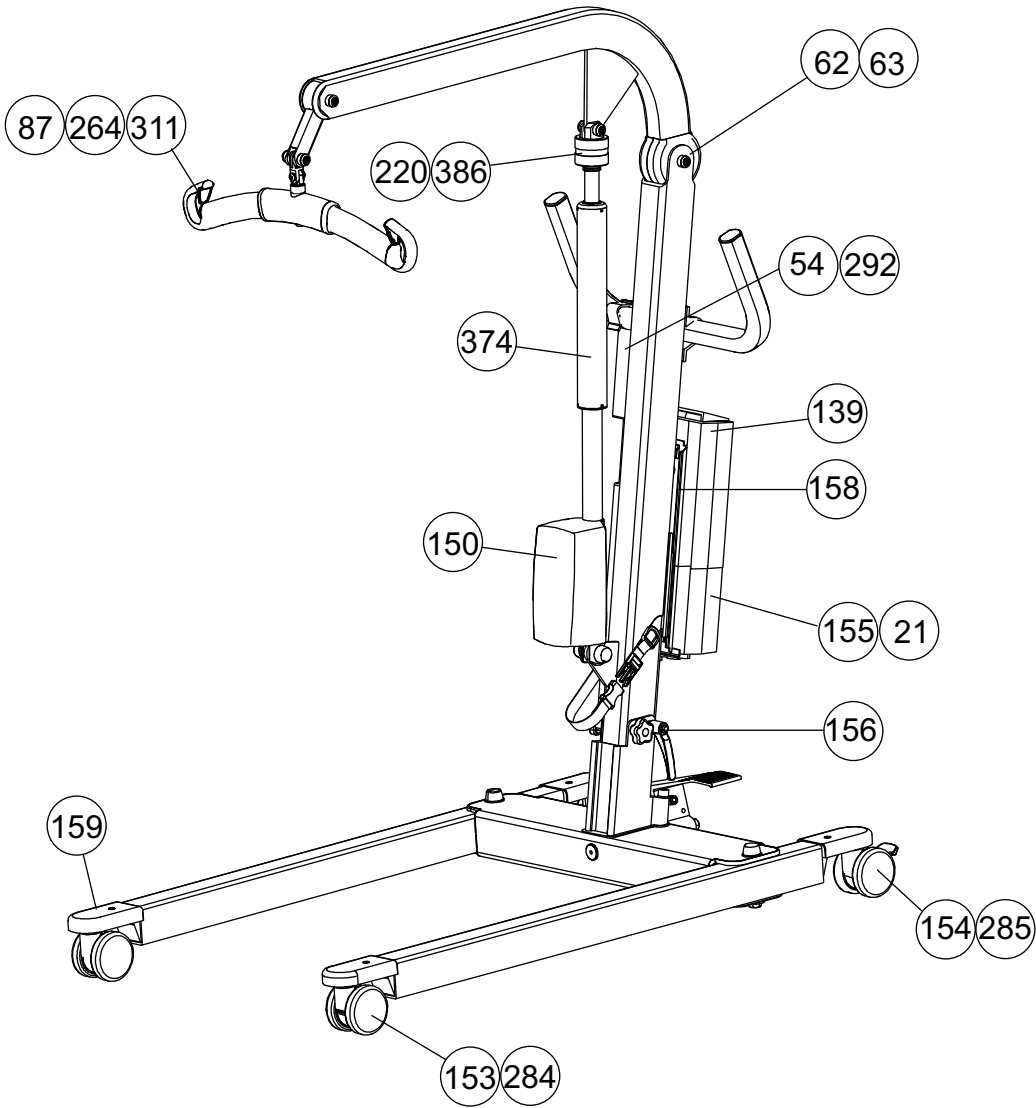
### LikoLight

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Spare Parts Position

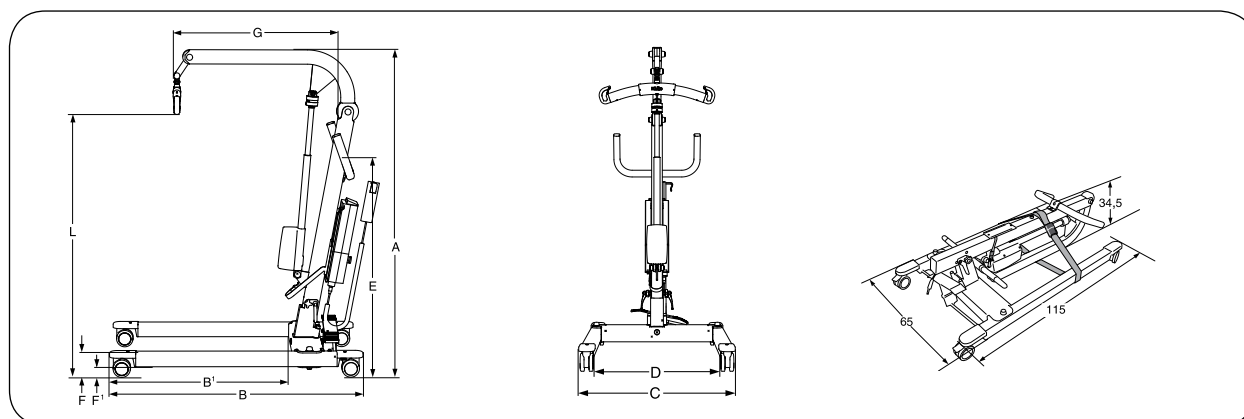
PROD. NO.	PRODUCT
2030001	LikoLight



## Technical Data

<b>Lifting speed:</b>	3,8 cm/s without load	<b>Material:</b>	Aluminium
<b>Batteries:</b>	2 pcs. 12 V 2,9Ah valve-regulated lead-acid gel-type batteries. New batteries available from supplier.	<b>Emergency lowering:</b>	Mechanical (patented) and electrical
<b>Battery charger:</b>	Wall-mounted charger, 100-240 V, 50-60 Hz, 400 mA	<b>Intermittent operation:</b>	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.
<b>Motor (mast):</b>	24 V 6A, Fabr. Linak, permanent magnetic motor with mechanical safety mechanism and safety nut.	<b>Degree of protection:</b>	IP 43
<b>Wheels:</b>	Standard front: 75 mm twin Alt. front: 100 mm twin Standard rear: 75 mm twin, brake-equipped Alt. rear: 125 mm twin, brake-equipped	 Built for indoor operation.	
<b>Weight:</b>	Base: 10 kg (22.1 lbs.) Lift mast: 9 kg (19.8 lbs.) Control unit incl. battery pack + handcontrol: 4 kg (8.8 lbs.)	 Type B, according to the degree of protection against electric shock.	
		 Class II equipment.	

## Measurements



LikoLight	Max. load	L		A		B	B'	C	D	E	F *	F'	G		Weight Tot.	Turning diameter
		Max	Min	Max	Min								Max.	Min.		
A:	140	156	26	176	118	115	81	65-108	51-96	97	11/14	3.2/4.8	72	50	23	127
B:	308	61.4	10.2	69.3	46.5	45.3	31.9	25.6-42.5	20-37.8	38.2	4.3/5.5	1.3/1.9	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.

\* 11 cm (4.3 inches) is standard. 14 cm (5.5 inches) is valid when the front wheel diameter is 100 mm (3.94 inches).

## Technical Data

For safe and trouble-free operation, a few routine procedures should be performed every day the lift is used.

- Visually inspect the lift and check for external damage or wear.
- Check that screws and lock nuts on the slingbar are tight.
- Check that the safety latches on the slingbar work properly.
- Check the handcontrol and the lift and width movements.
- Check the emergency lowering function (both electrical and mechanical).
- Charge the battery every day the lift is used, and check charger function.

When necessary, clean the lift with warm water or ethanol and check to ensure that the wheels are free of dirt and hair. **NOTE! Do not use chemicals containing phenol or chlorine, since this may damage aluminium and polyamide materials.**

### Transportation and storage

During transportation, or when the lift is not to be used for some time, the Emergency Stop button should be pushed in. Store the lift at a temperature exceeding freezing point and at normal relative humidity (no more than 60%).

### Inspection

The lift must be thoroughly inspected at least once per year. Pay particular attention to parts that show wear, for example, joints, bolts, etc.

Service must be carried out according to Liko service manuals and by authorized personnel.

#### **IMPORTANT!**

Repairs and maintenance may only be carried out by authorized Liko service personnel using Liko original spare parts.

### Service agreements

Liko invites you to sign a service agreement for regular maintenance and testing of your LikoLight.

Liko's products are constantly being updated and refined. Liko reserves the right to change aspects of the products without prior notice. Contact your Liko representative for updated information and advice.

### Made in Sweden

*Liko is quality certified according to ISO 9001 and environment certified according to ISO 14001.*

## Troubleshooting

***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 hand-control 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 Liko.*

***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 Liko.*

***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 Liko.*

***If you hear unusual sounds***

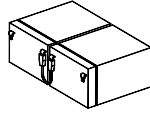

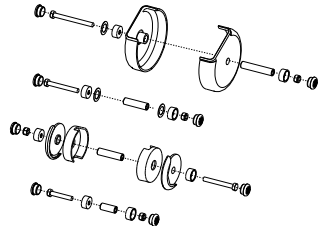
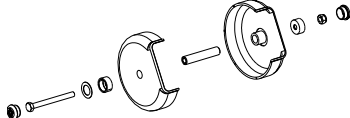
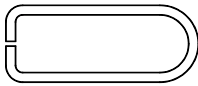
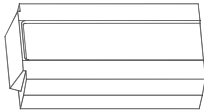
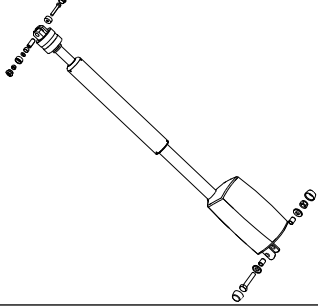


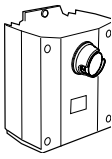
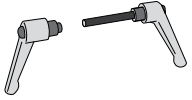


*Contact Liko.*



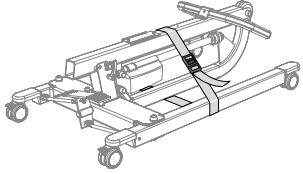
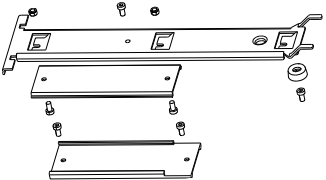
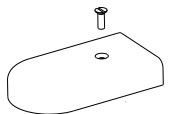
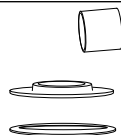
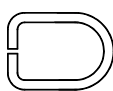

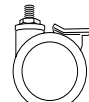
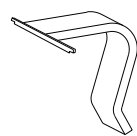

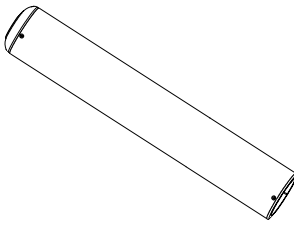
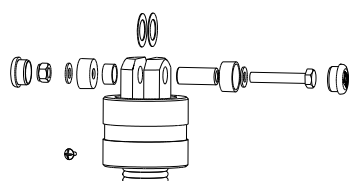
## Spare Parts List

2009-05-25

LikoLight				
PROD. NO.	POS. NO.	NAME	UNIT	
20090025	21	Battery	pce	
20190016	54	Handcontrol EM 2-Button	pce	
20190044	62	Overhead Beam Restoration set	set	
20190045	63	Lift Arm Plastic Cover	set	
31190018	87	Safety Latch	pair	
2006106	139	Extra Battery box, incl. batteries	pce	
20390008	150	Actuator LikoLight	pce	
20390001	153	Front Wheel 75 mm (Up to S/N 2503101)	pce	
20390002	154	Rear Wheel 75 mm (Up to S/N 2503101)	pce	
20390007	155	Control Box LikoLight	pce	
20390003	156	Locking Handle	set	

## Spare Parts List

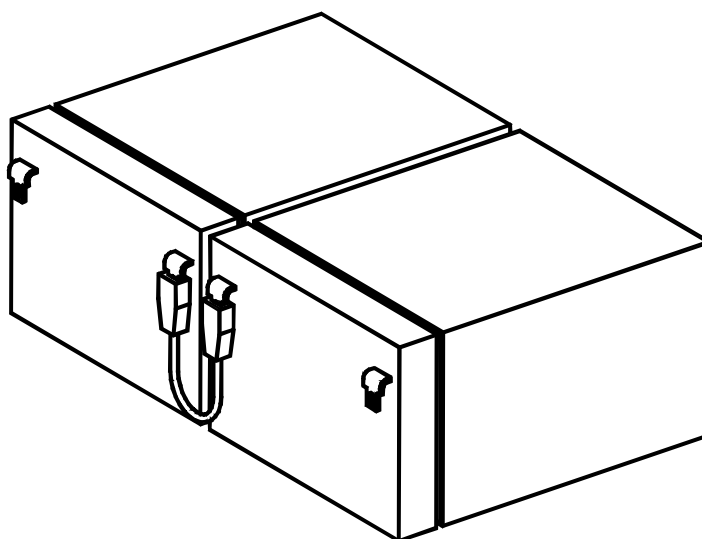
2009-05-25

LikoLight				
PROD. NO.	POS. NO.	NAME	UNIT	
20390004	157	Conveyor Strap	pce	
20390005	158	Attachment for Control Box LikoLight	set	
20390006	159	Front Fork Cover LL,Vi,Golvo	pair	
20190051	220	Restoration set Emergency Lowering	set	
31590011	264	Safety Latch Universal Slingbar	pair	
20490014	284	Front Wheel 75 mm Standard (From S/N 2503102)	pce	
20490015	285	Rear Wheel 75 mm Standard (From S/N 2503102)	pce	
20090058	292	Hook for Handcontrol 2,4,6	pce	
31590014	311	Safety Latch, composite (Fits slingbars from S/N 1221691)	pair	
20390017	374	Outer Tube LA32, 310 mm	pce	
20390018	386	Emergency lowering	set	

## Battery 2,9Ah/12V

Prod. No. 20090025

From S/N..... Version.....

**Details included in sparepart:**

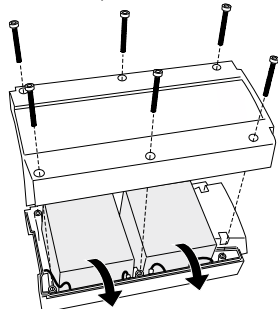
Detail no.	Details:	Unit:
950000053	Battery 1 pair with cable	1

## Assembly Instruction Monteringsanvisning

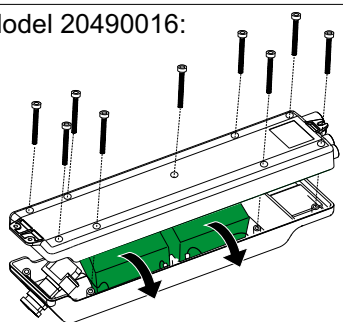
Prod. No. 20090025

3SE380201-04  
2008-08-06

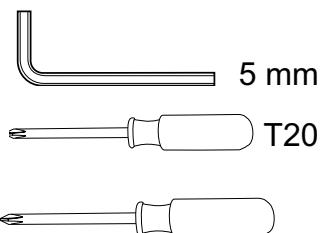
Model 2006106, 20090022:



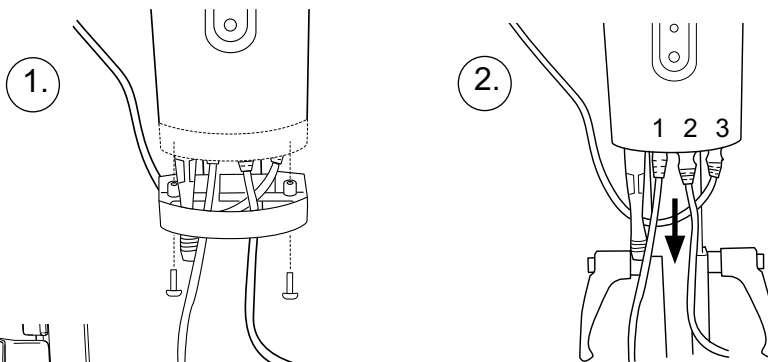
Model 20490016:



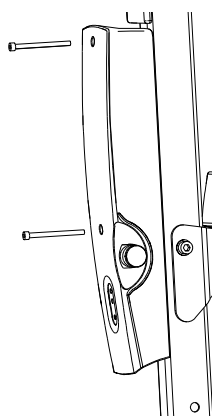
Tools required:



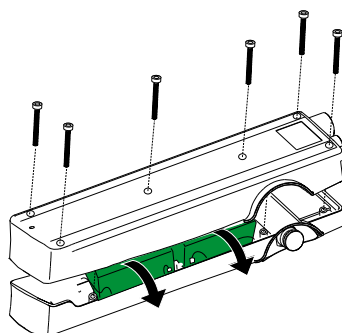
Model 20190060:


1: Hand control  
2: Base-motor cable  
3: Lift motor cable

3.



4.



△ Check all functions!

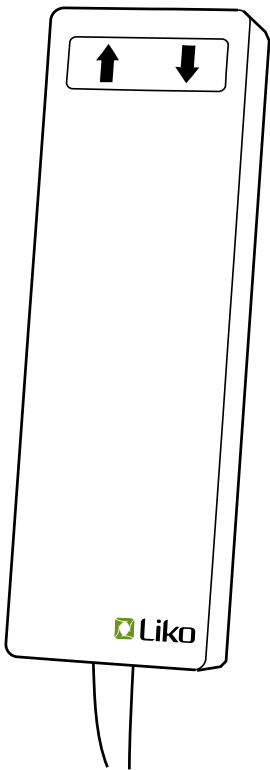


Old batteries are to be left at the nearest recycling station or given to personnel authorized by Liko.

Handcontrol EM, 2-button

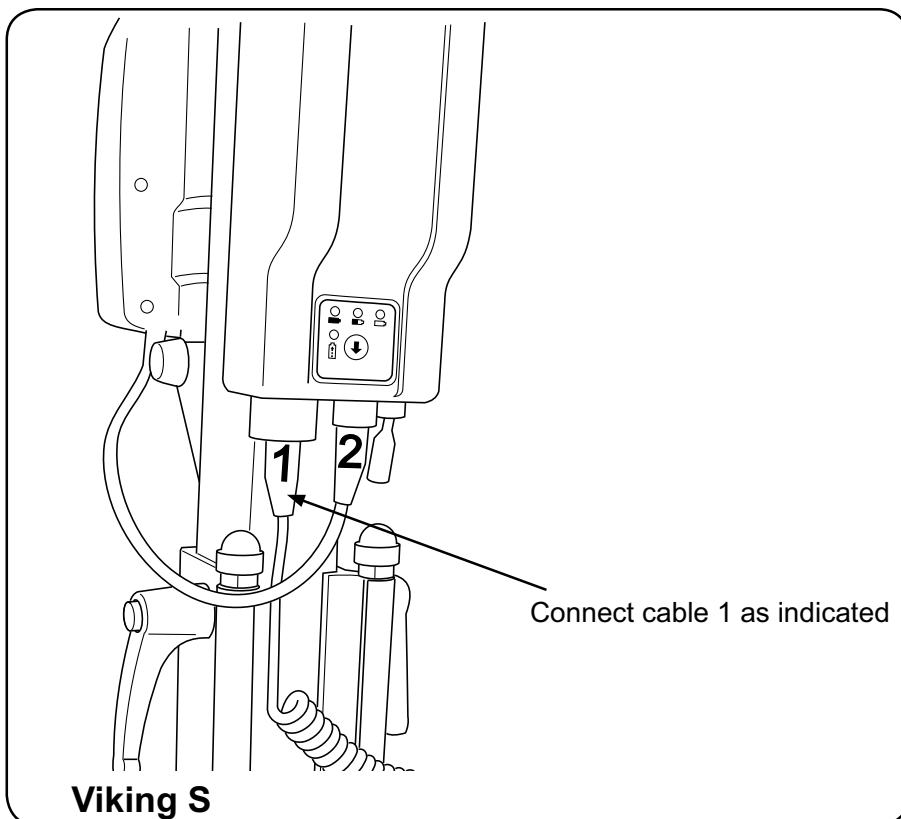
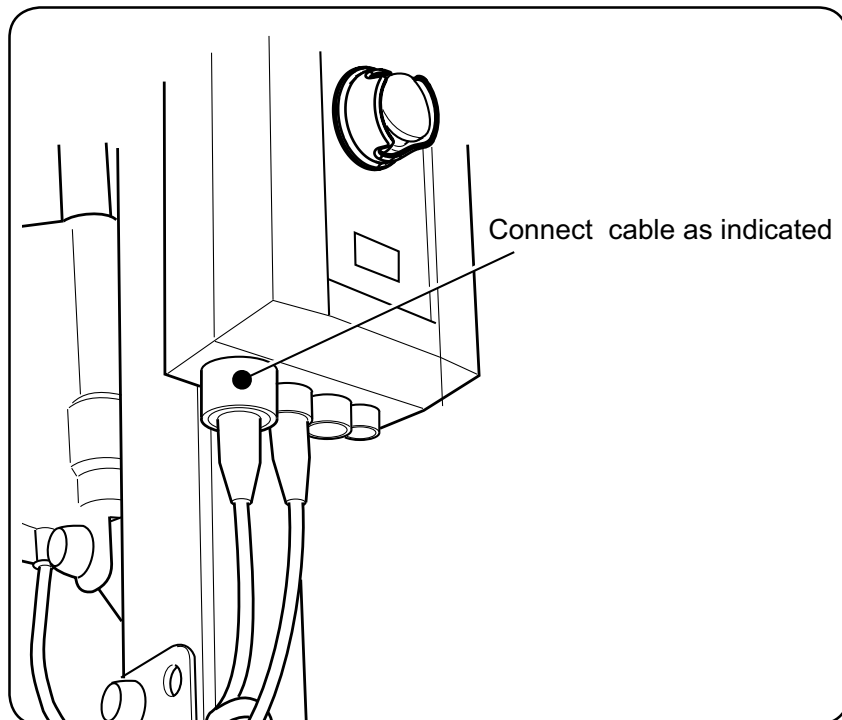
Prod. No. 20190016

From S/N..... Version.....V2.....



Details included in sparepart:

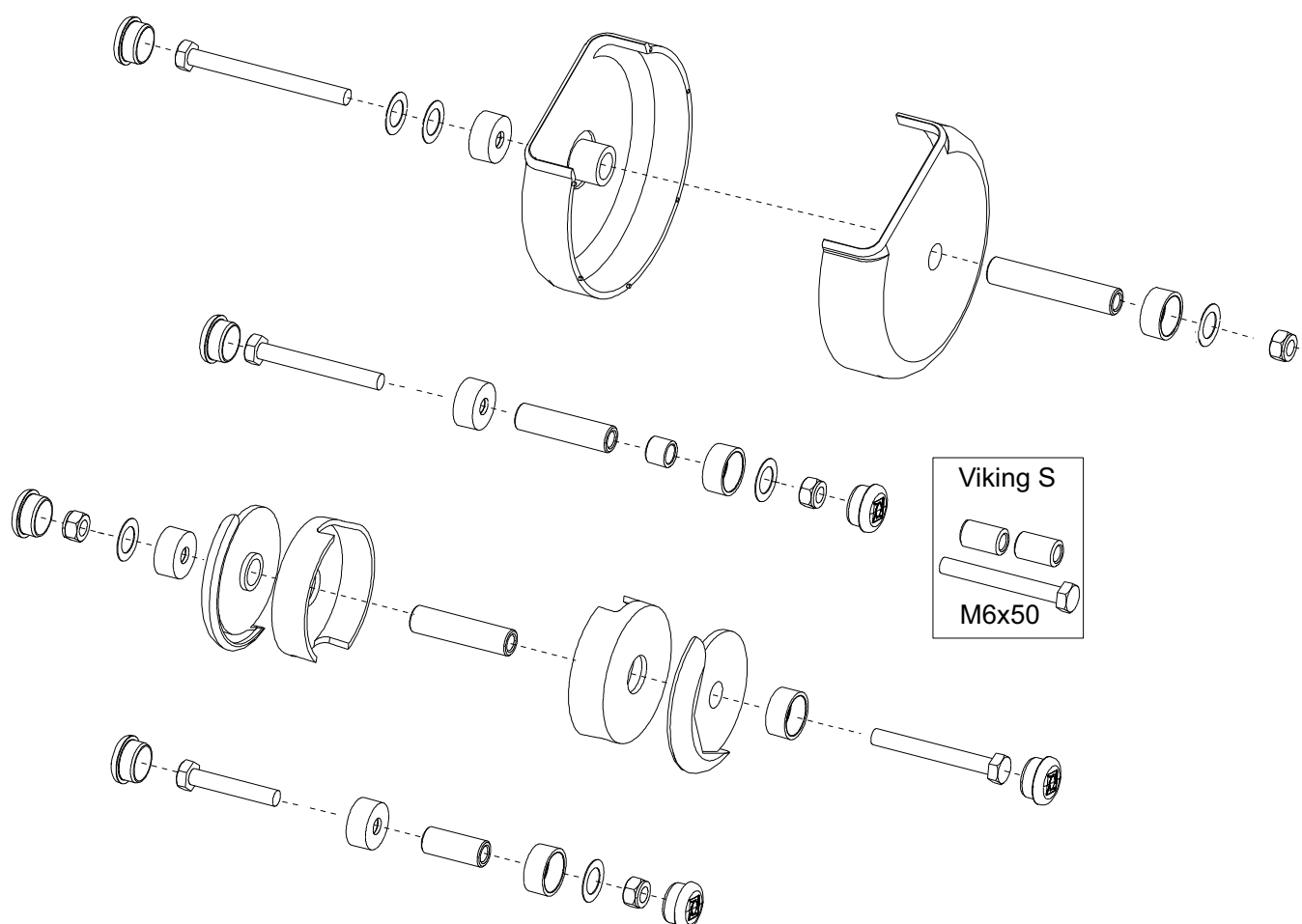
Detail no.	Details:	Unit:
950000049	Handcontrol EM	1

Assembly Instruction  
MonteringsanvisningProd no: 20090024  
20190016  
201900173SE630204-07  
2007-09-10

## Overhead Beam Restoration set

Prod. No. 20190044

From S/N...2503593..... Version...2..... Compatible with lower s/n

**Details included in sparepart:**

See assembly instruction

## Assembly Instruction Monteringsanvisning

Prod. No. 20190044

3SE630202-09  
2009-06-24

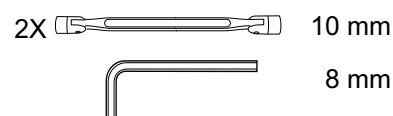
### Contains:

Bearing 12/14x6	1
Washer plastic 12,5/20x0,42	2
Cover hat Liko	8
Cover hat Liko bottom	8
Sleeve bearing Mob. 24	2
Sleeve bearing Mob. 38	1
Sleeve bearing Mob. 40	1
Sleeve bearing Mob. 52	1
Plastic cover mast	2
Lift arm insert set U102	1
Nylon bearing 10x12x6	1
Nylon bearing 10/12x15	2
Locking nut M6 Nyloc	4
Screw M6S M6x50	2
Screw M6S M6x35	2
Screw M6S M6x65	1
Washer PS 6x12x1	6

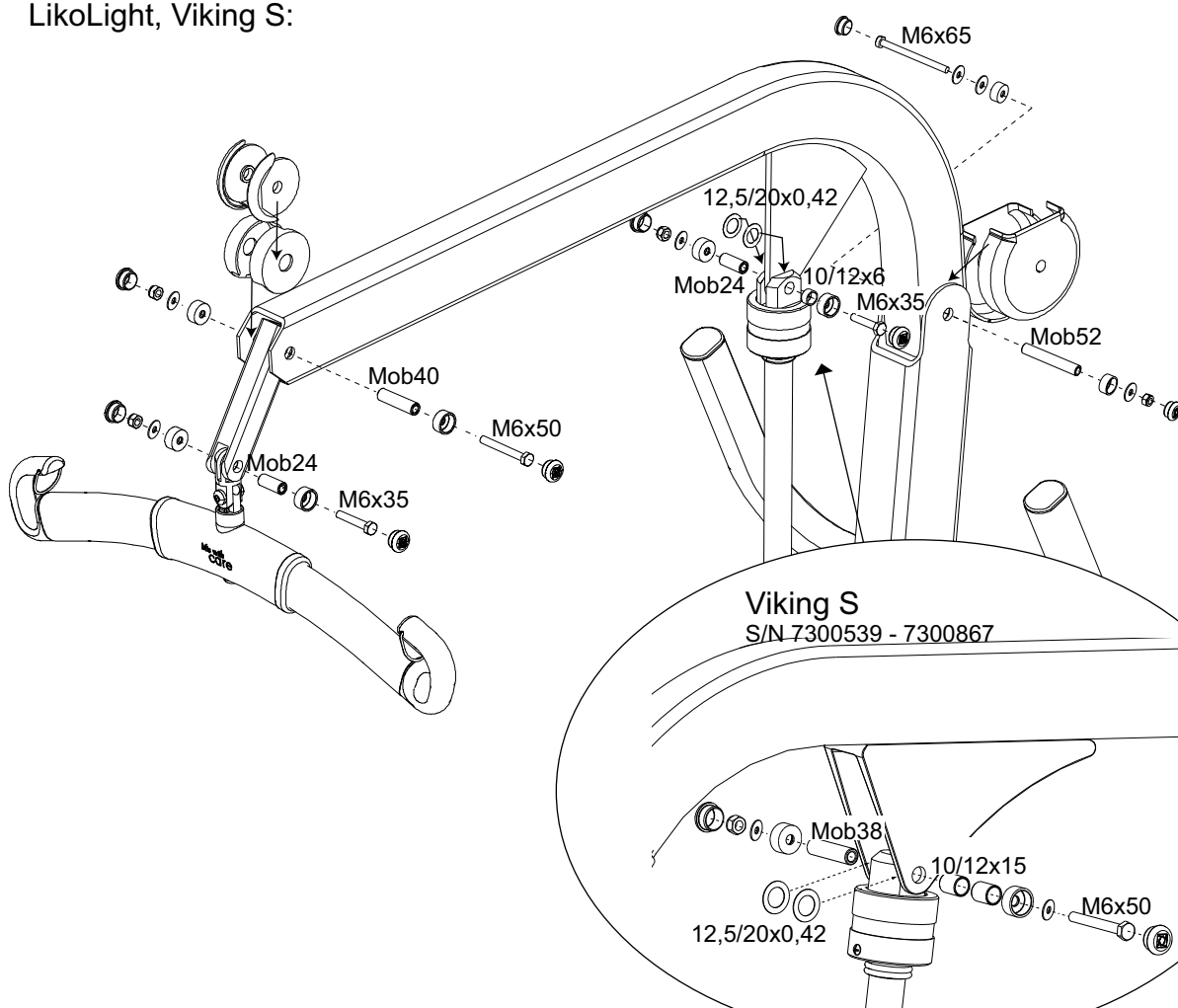
### Fits:

LikoLight  
Viking S, S/N 7300539 - 7300867

### Tools required



### LikoLight, Viking S:



### NOTE

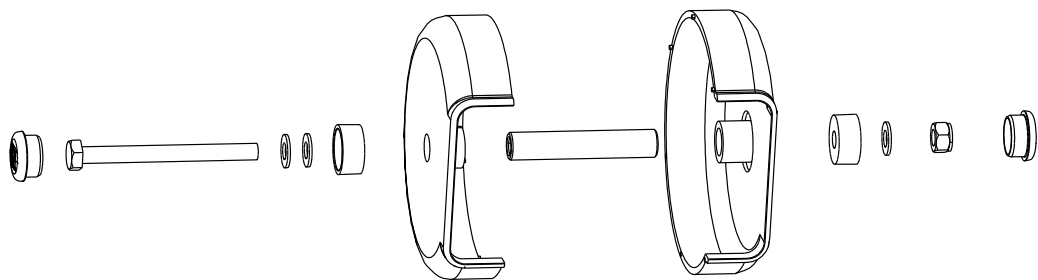
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.



Lift Arm Plastic Cover

Prod. No. 20190045

From S/N. 2503593..... Version... 2..... Compatible with lower s/n  
3 Compatible with lower s/n



Details included in sparepart:

Detail no.	Details:	Unit:
	See assembly instruction	

## Assembly Instruction Monteringsanvisning

Prod. No. 20190045

3SE630211-08  
2009-01-28

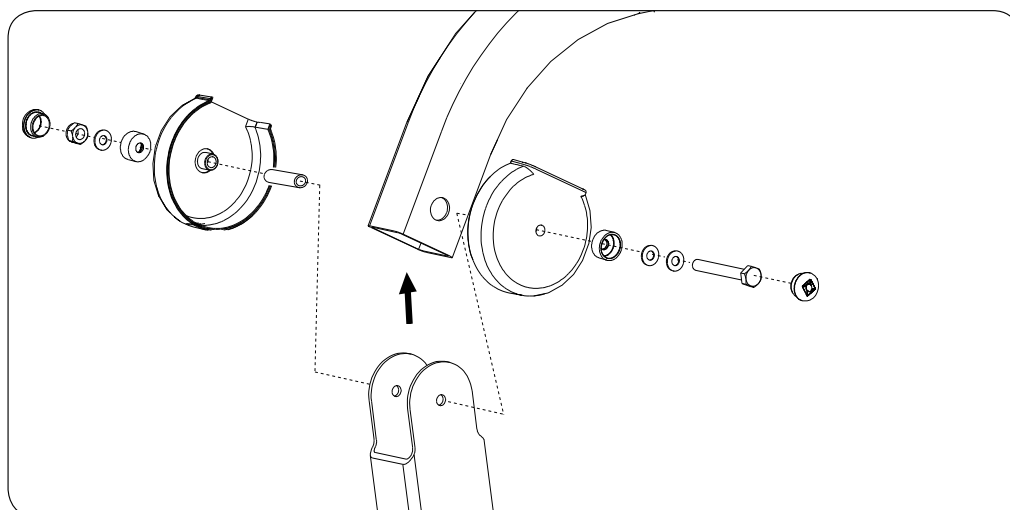
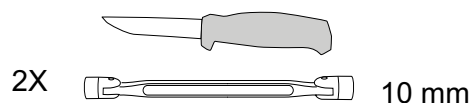
### Contains:

Plastic cover	2
Cover hat Liko	2
Cover hat Liko bottom	2
Sleeve bearing Mob.52	1
Locking nut M6 Nyloc	1
Washer PS 6x12x1	3
Screw M6S M6x65	1

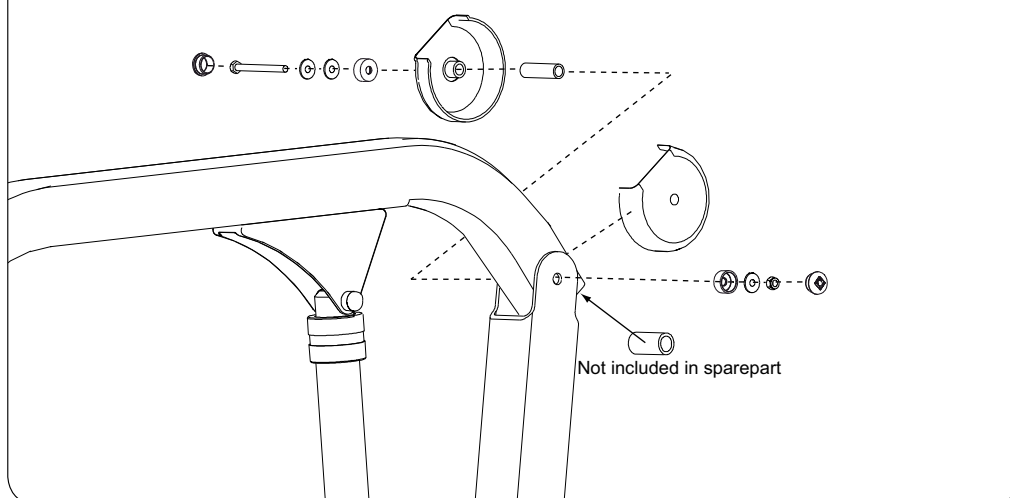
### Fits:

Sabina II  
LikoLight  
Vi S up to S/N 7300867

### Tools required



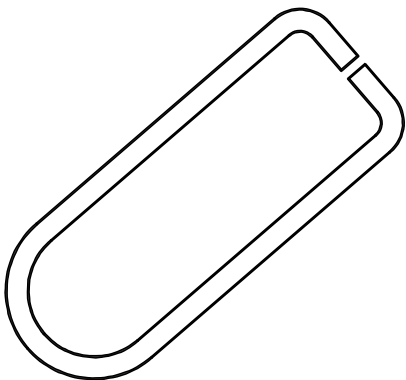
Viking S up to S/N 7300867



Safety Latch

Prod. No. 31190018

From S/N..... Version.....

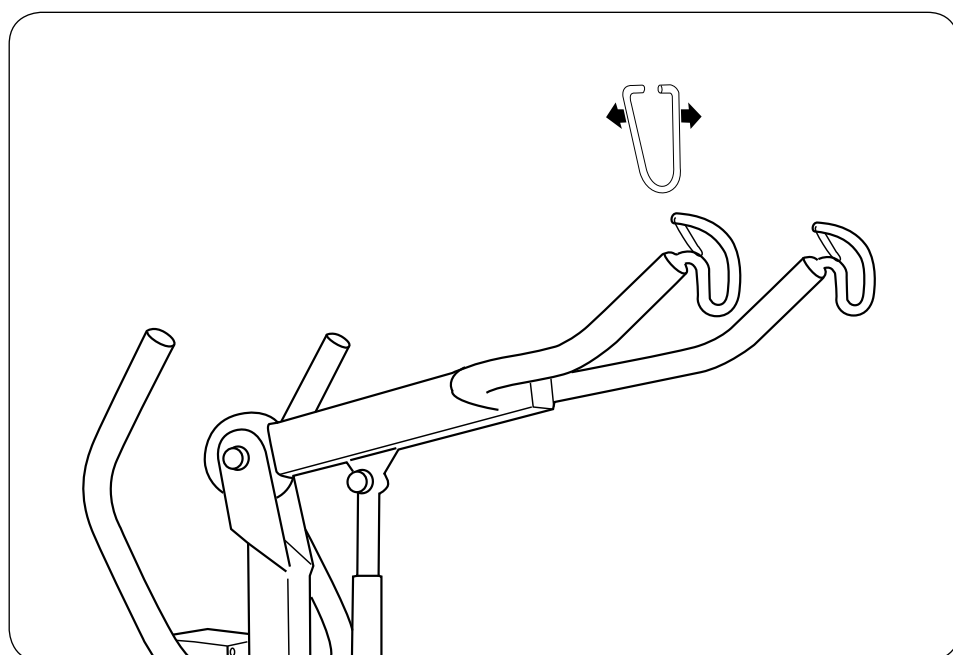
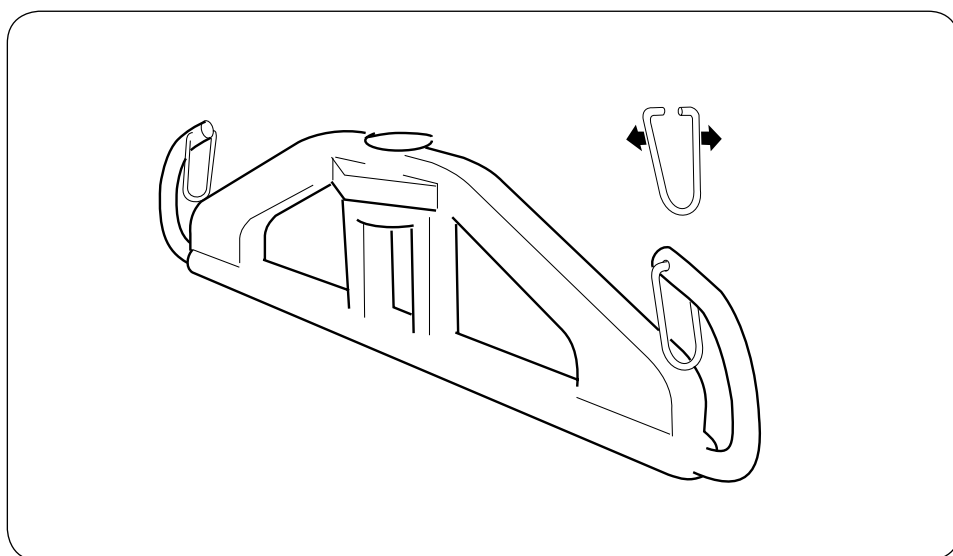


Details included in sparepart:

Detail no.	Details:	Unit:
900000177	Safety latch	2

Assembly Instruction  
Monteringsanvisning

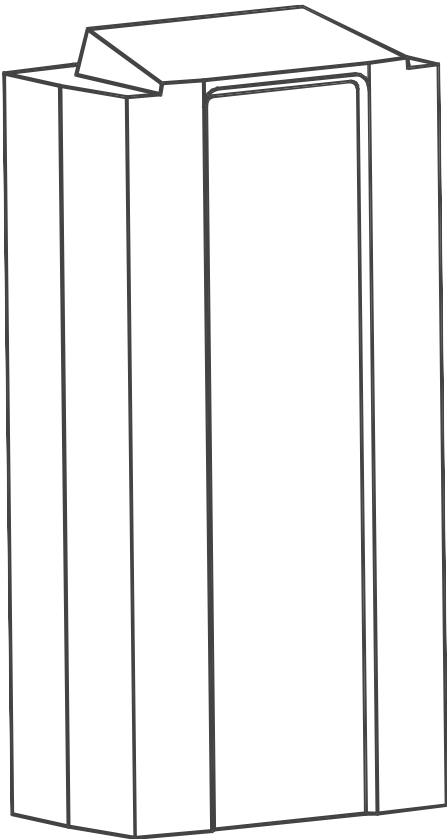
Prod. No. 31190018

3SE640271-02  
2008-09-30

Extra Battery box, incl. batteries

Prod. No. 2006106

From S/N..... Version.....

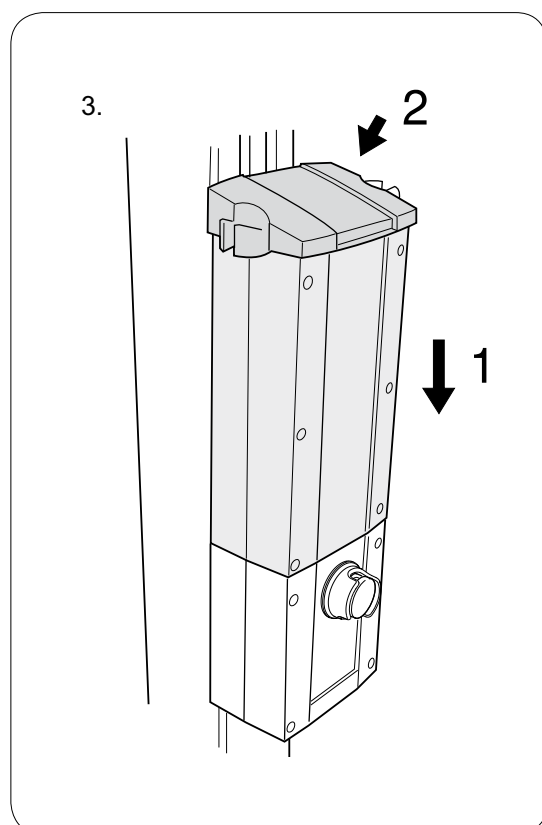
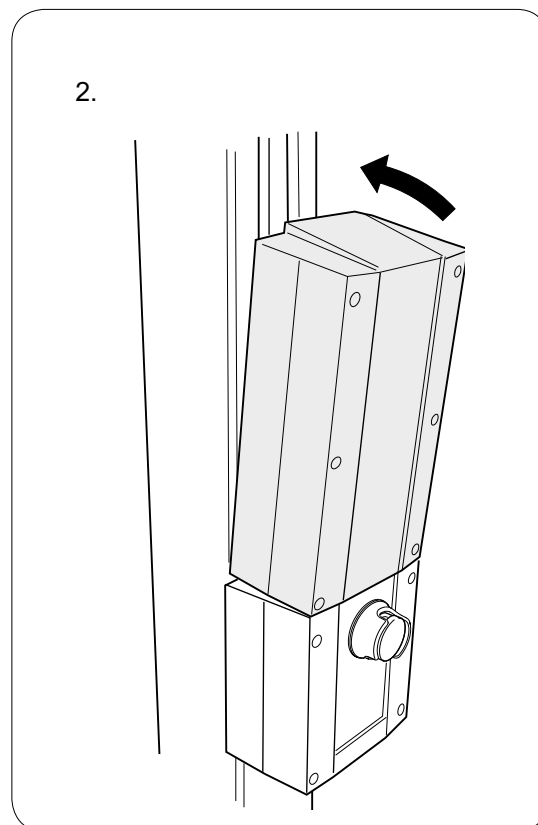
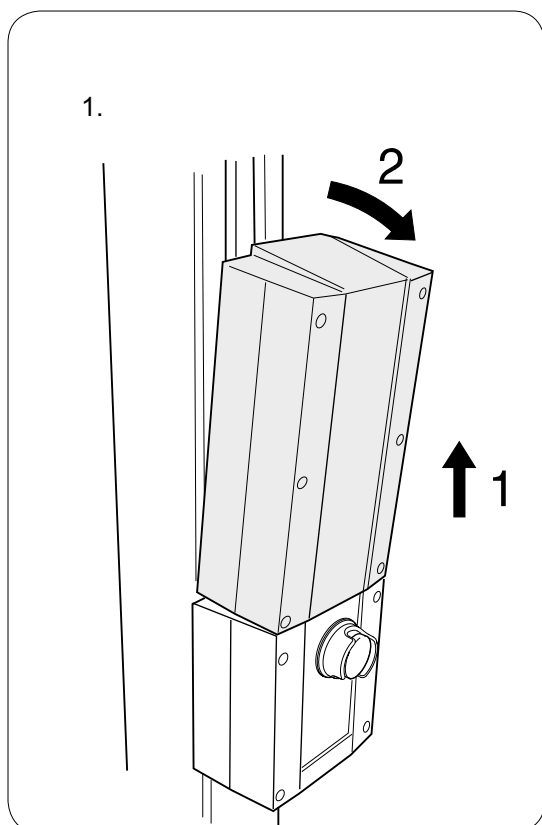


Details included in sparepart:

Detail no.	Details:	Unit:
2006106	Battery box	1

## Assembly Instruction Monteringsanvisning

Prod. No. 2006106

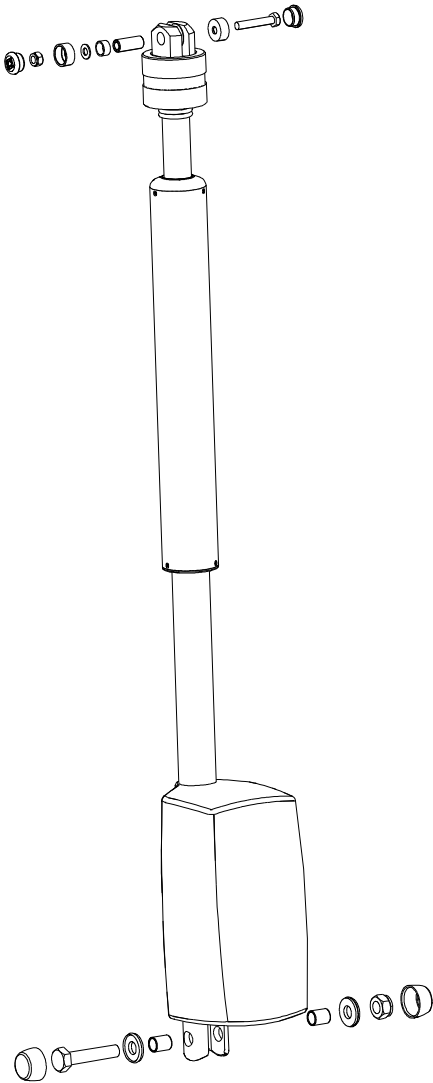
3SE630224-02  
2007-10-30


Old batteries are to be left to  
personal authorised by Liko,  
or at the nearest station for  
environmental recycling.

# Actuator LikoLight

Prod. No. 20390008

From S/N...2505826..... Version....2...with outer tube, compatible with lower S/N



Details included in sparepart:

Detail no.	Details:	Unit:
	See assembly instruction	

## Assembly Instruction Monteringsanvisning

Prod. No. 20390008

3SE630291-04

2009-06-23

### Contains:

	Qty:
Actuator Light MkII with emergency lowering	1
Outer Tube LA32 310mm	1
Coverhat Liko	2
Coverhat Liko, bottom	2
Locking nut M6 Nyloc	1
Screw M6S M6x35	1
Washer PS 6x12x1	1
Sleeve bearing Mob.24	1
Nylon bearing 10x12x6	1
Washer 12,5/20x0,42	2
Nylon bearing 10/12x15	2
Screw M6S M10x50 GI=12	1
Coverhat M10 grey (incl. bottom)	2
Locking nut M10 Nyloc	1

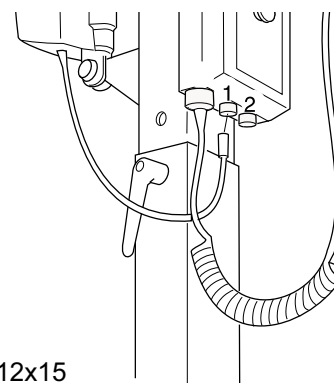
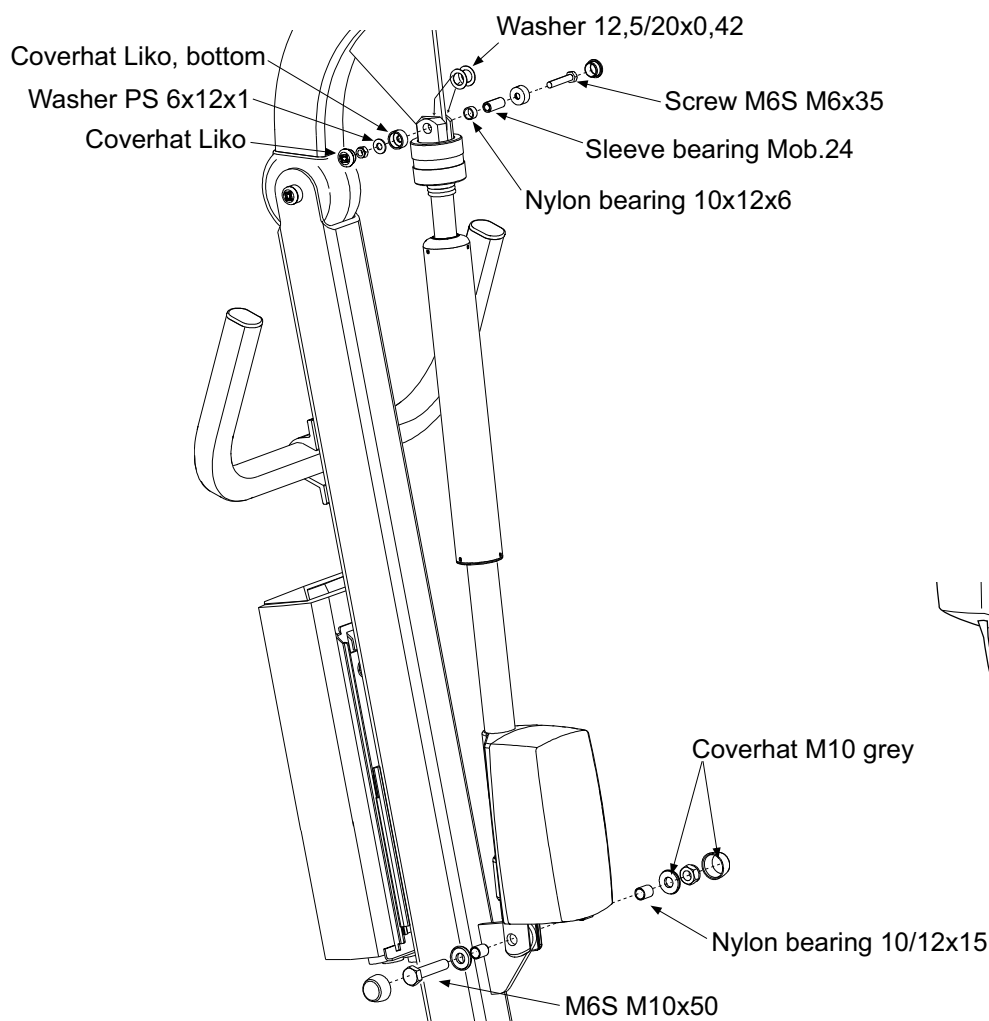
### Fits:

LikoLight

### Tools required:

2x  17 mm

2x  10 mm



Connect the motorcable  
mast to pos. 1

### NOTE

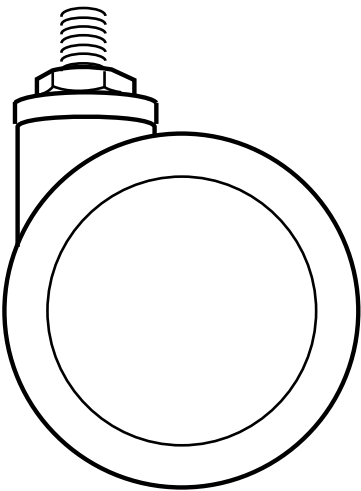
- Make sure the spare part is mounted according to the assembly instruction.
- Check all functions related to the changed spare part.
- Make sure the Outer Tube easy slides up and down.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.



Front Wheel 75 mm

Prod. No. 20390001

From S/N.:up.to.s/n.2503101.. Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
910000005	Front wheel 75mm Light	1

# Assembly Instruction

## Monteringsanvisning

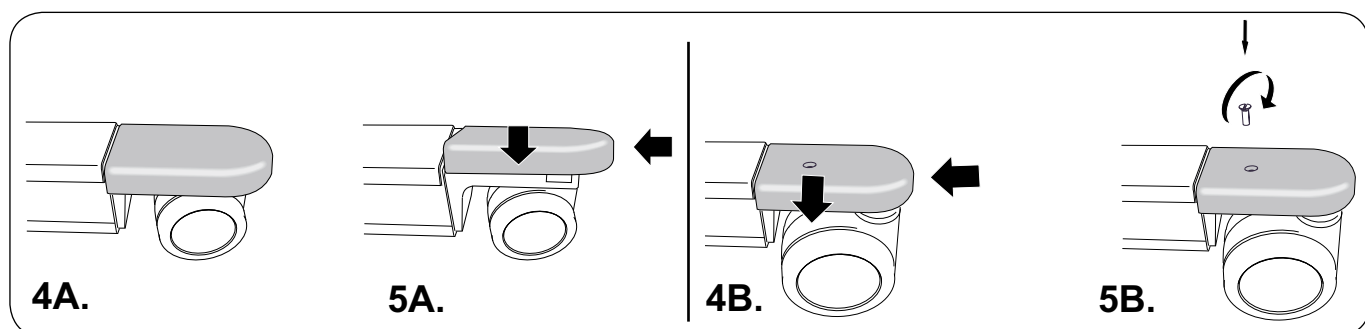
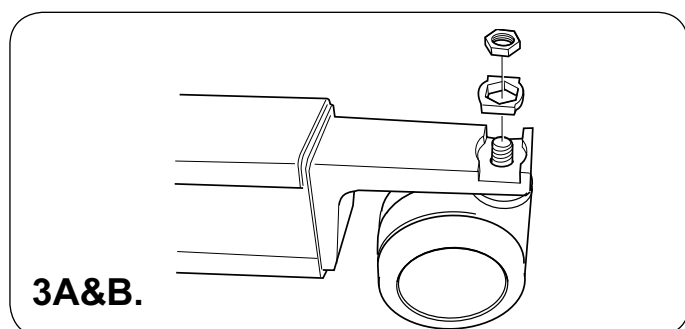
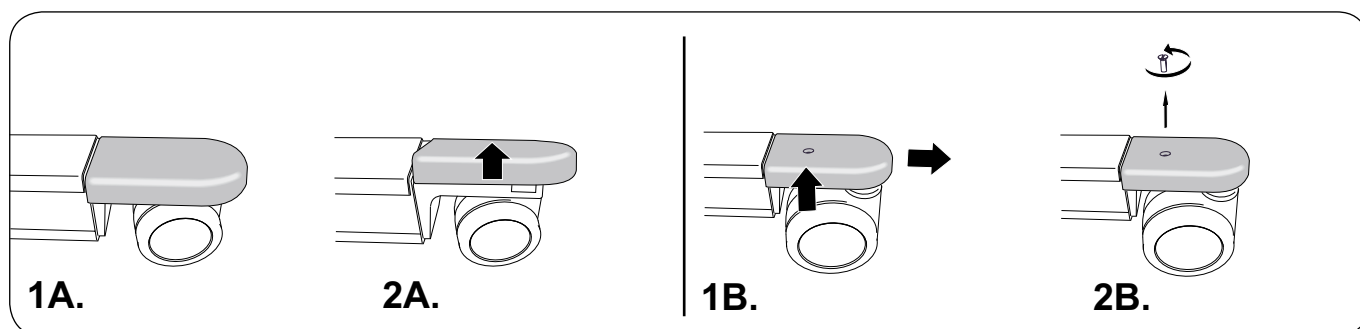
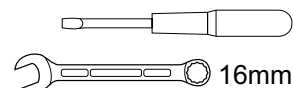
Prod no: 20390001

20490014

3SE630220-03

2007-05-11

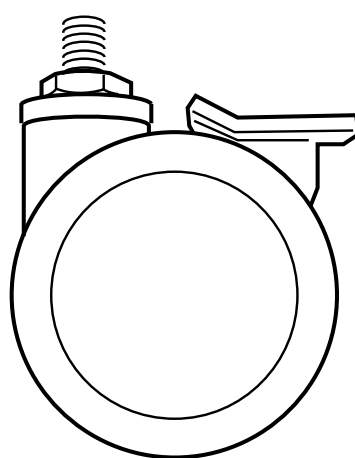
Tools required:



## Rear Wheel 75 mm

Prod. No. 20390002

From S/N.:up.to.s/n.2503101.. Version.....

**Details included in sparepart:**

Detail no.	Details:	Unit:
910000006	Rear wheel 75mm Light	1

## Assembly Instruction Monteringsanvisning

Prod no: 20390002

20490015

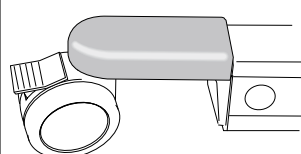
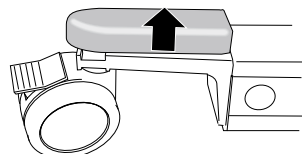
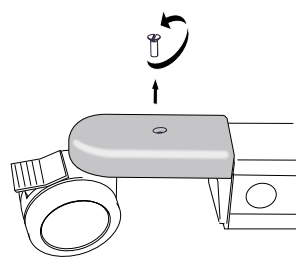
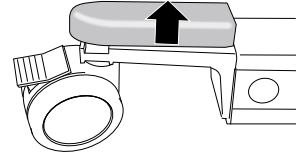
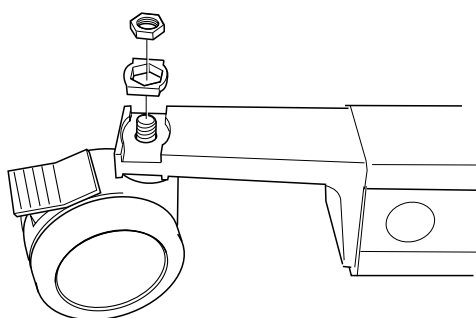
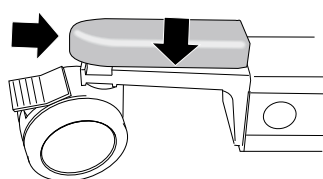
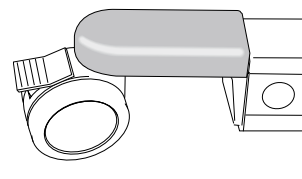
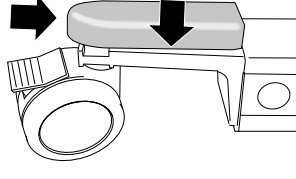
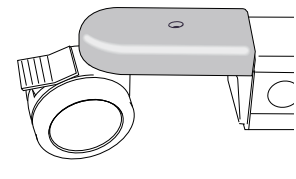
3SE630221-03

2007-05-11

Tools required:



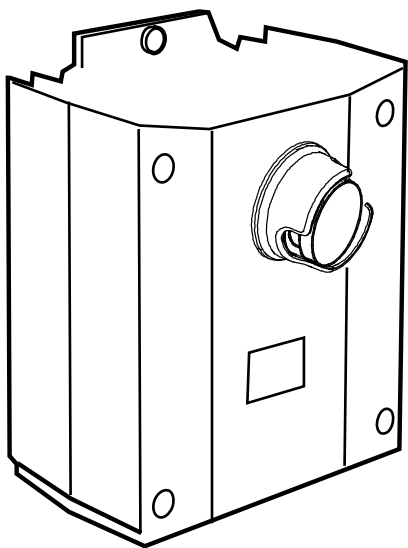
16mm


**1A.**

**2A.**

**1B.**

**2B.**

**3A&B.**

**4A.**

**5A.**

**4B.**

**5B.**

Control Box LikoLight

Prod. No. 20390007

From S/N..... Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
950000057	Controlbox Light	1
901535091	Emergency guard	1

## Assembly Instruction Monteringsanvisning

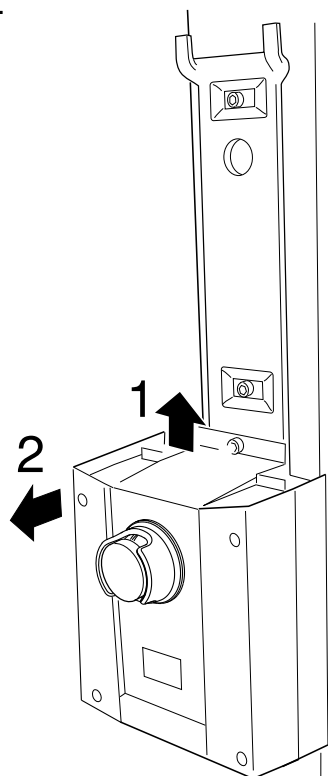
Prod. No. 20090022, 20190013  
20190014, 20290011  
20290024, 20390007  
20490009, 20490013

3SE630223-03  
2007-10-30

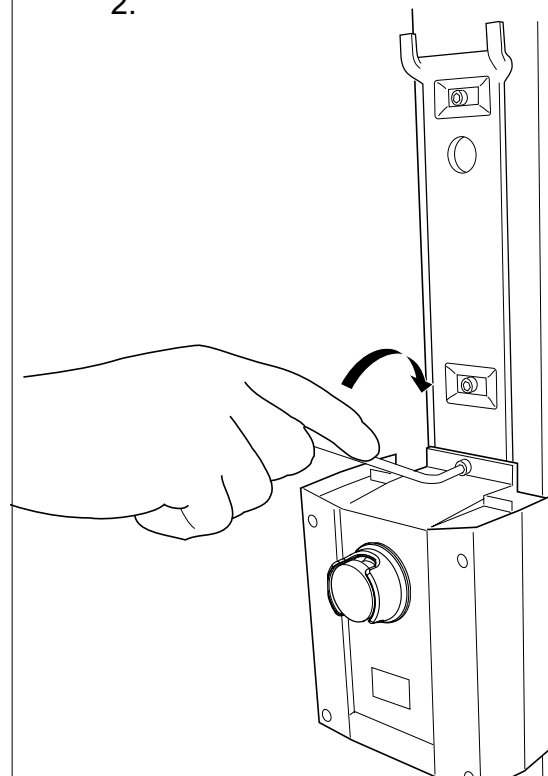
Tools required:



1.



2.

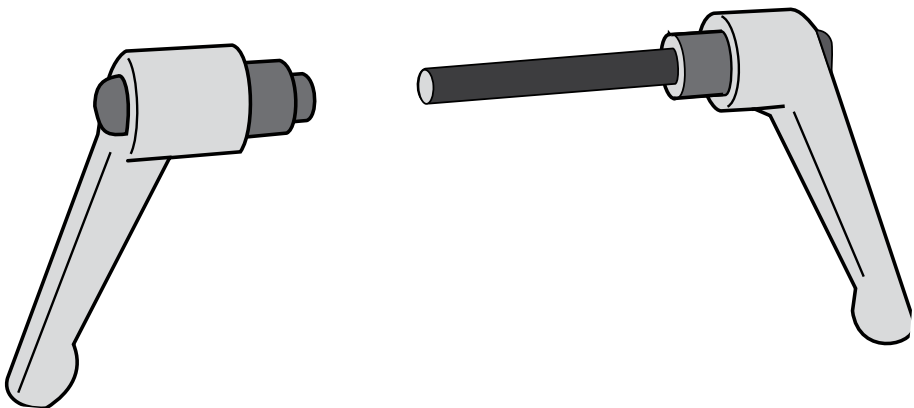


20090022 Golvo 7000/7007  
20190013 Uno 100/102 EE, EM  
20190014 Uno 100/102 ES  
20290011 Sabina  
20290024 Sabina II  
20390007 Liko Light  
20490009 Viking L, Viking XL  
20490013 Viking M

Locking Handle

Prod. No. 20390003

From S/N..... Version...2.....



Details included in sparepart:

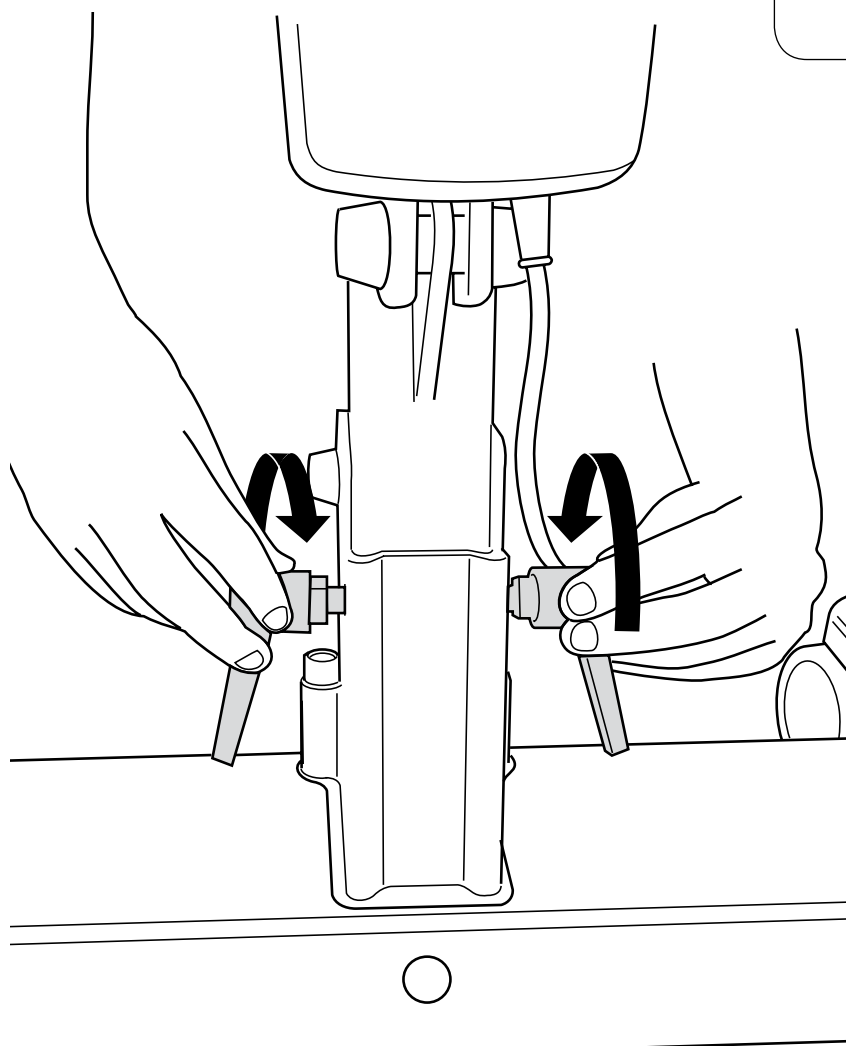
Detail no.	Details:	Unit:
930000496	Lever M8 grey	1
930000497	Lever M8x70 grey	1

**Assembly Instruction**  
**Monteringsanvisning**

Prod no: 20390003

3SE630288-01  
2007-05-11

Tools required:

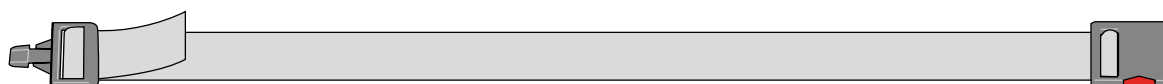




# Conveyor Strap

Prod. No. 20390004

From S/N..... Version.....

**Details included in sparepart:**

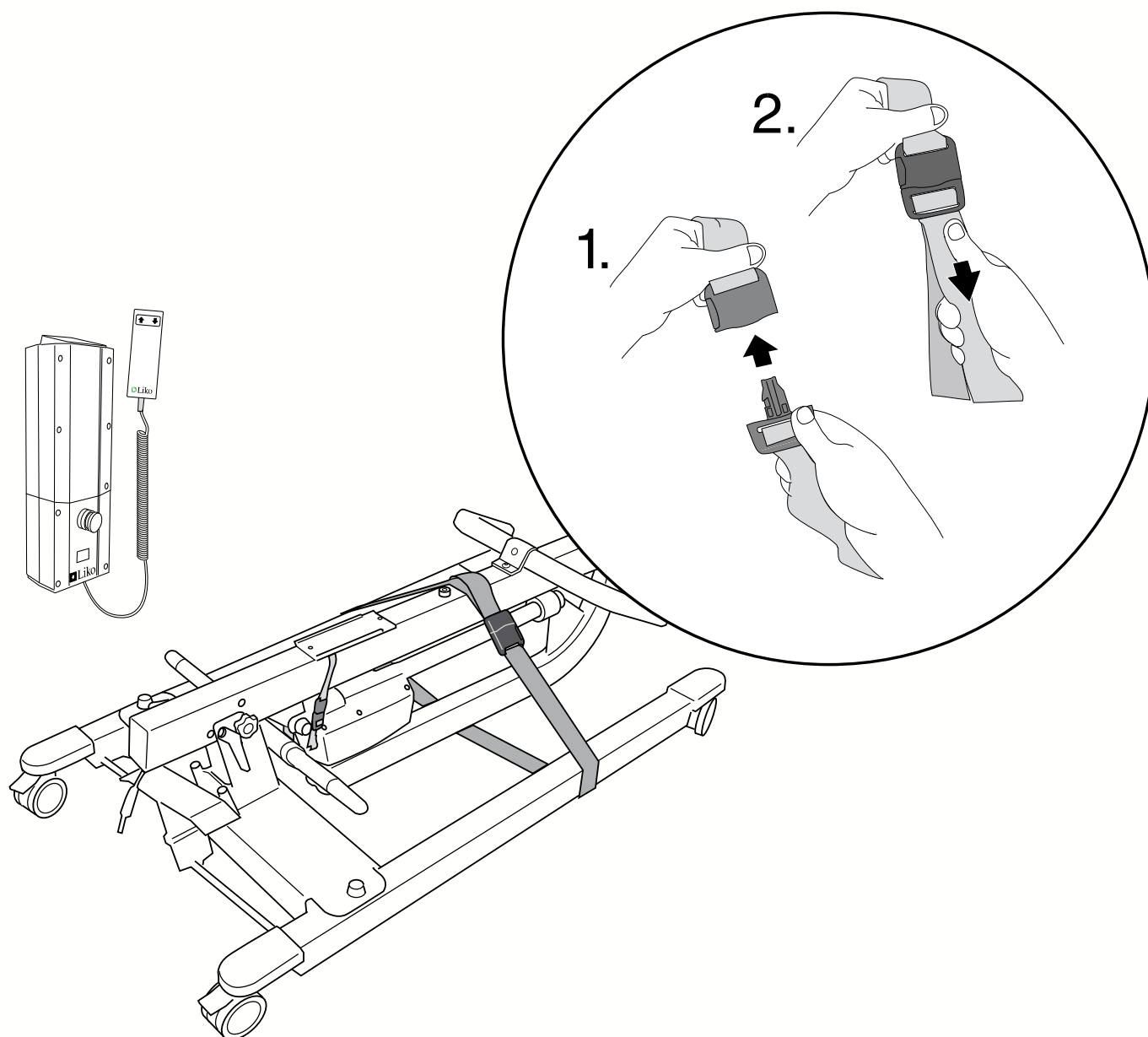
Detail no.	Details:	Unit:
900000073	Band 40mm 688 green	1,75m
900000099	D-ring plastic	1
900002061	Buckle SS40	1
900002063	Strapholder TG40	1

## Assembly Instruction Monteringsanvisning

Prod no: 20390004

3SE630289-01  
2007-05-11

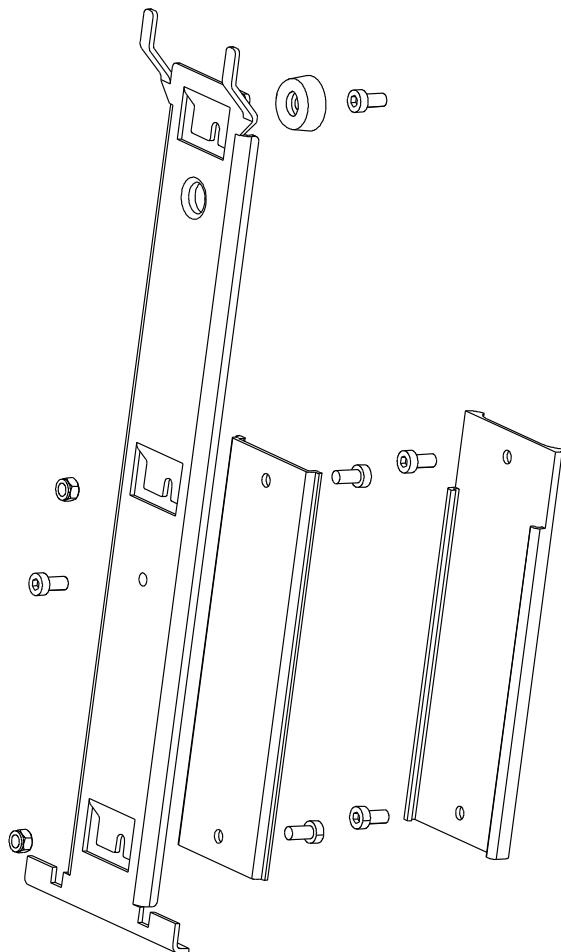
Tools required:



# Attachment for Control Box LikoLight

Prod. No. 20390005

From S/N..... Version.....2.....



## Details included in sparepart:

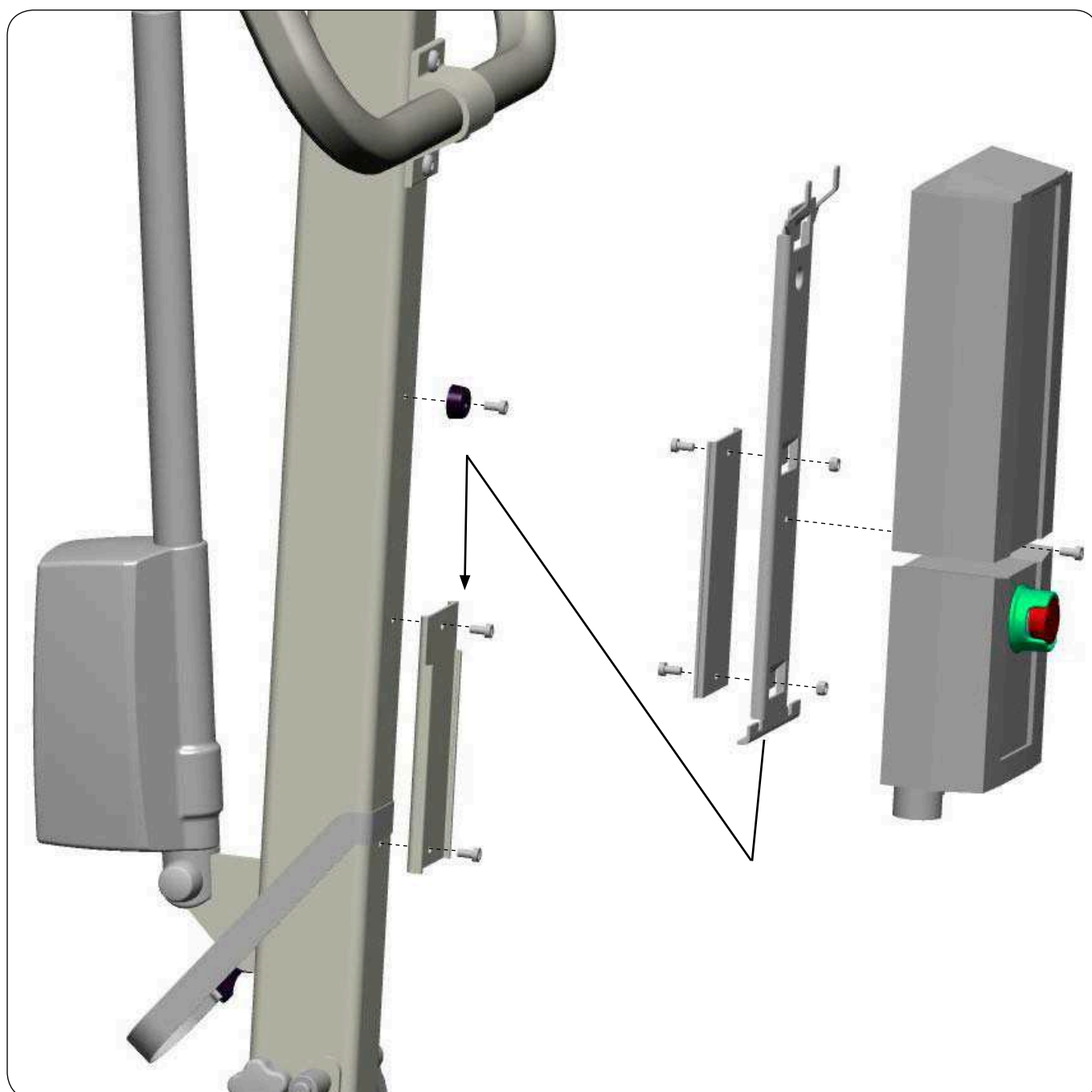
Detail no.	Details:	Unit:
901992519	Mast attachment	1
901992518	Profile Light	1
900000001	Attachment controlbox	1
930000297	Screw MC6S M5x10 low	6
900000418	Foot of rubber 14.M.005	1
930000313	Locking nut M5 Nyloc A2	2

**Assembly Instruction**  
**Monteringsanvisning**

Prod no: 20390005

3SE630290-01  
2007-05-15

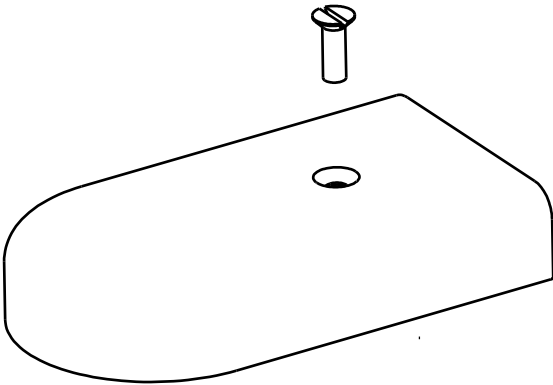
Tools required:



Front Fork Cover LL, Vi

Prod. No. 20390006

From S/N..... Version...**V2**.....



Details included in sparepart:

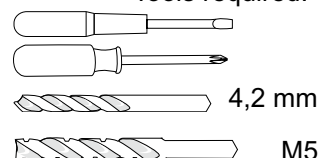
Detail no.	Details:	Unit:
900000419	Front fork cover grey Light	2
930000424	Nylon Screw M5x16 N	2

## Assembly Instruction Monteringsanvisning

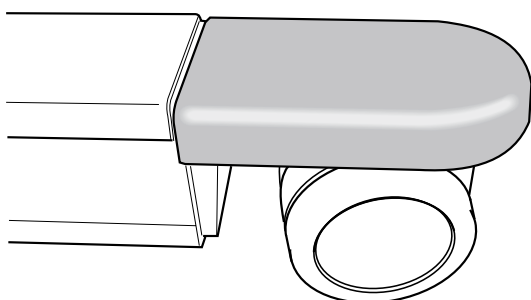
Prod no: 20390006

3SE380202-02  
2007-03-15

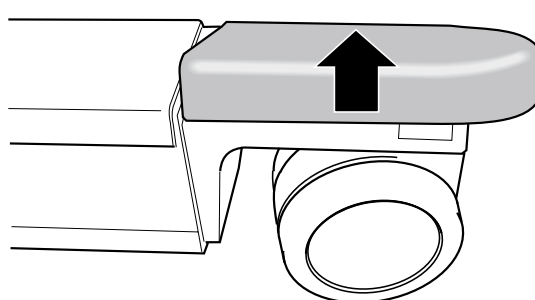
Tools required:



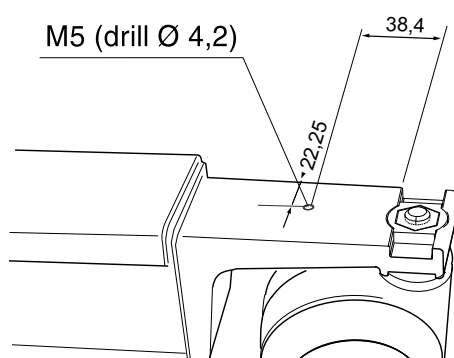
1.



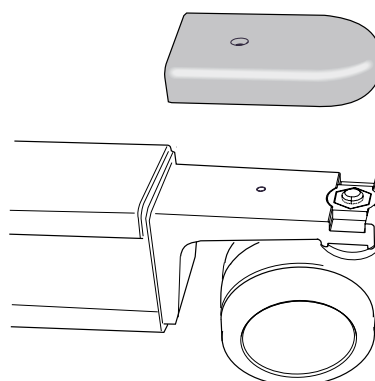
2.



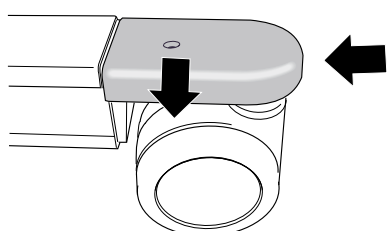
3. If not prepared with hole, drill [mm.]



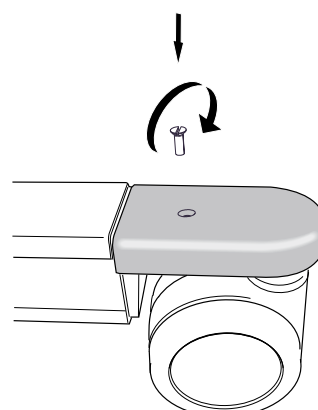
4.



5.



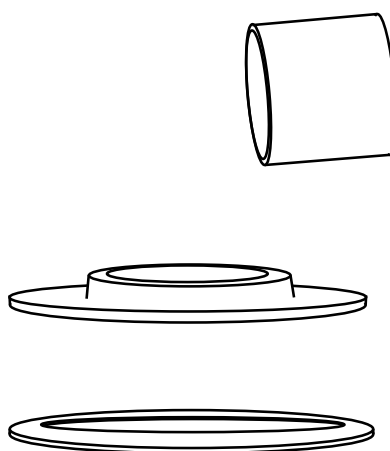
6.



## Restoration set Emergency Lowering

Prod. No. 20190051

From S/N..... Version.....2.....

**Details included in sparepart:**

Detail no.	Details:	Unit:
901979010	Bushing em. lowering	1
901979011	Shim em.lowering 28x13x0,42	1
901969077	Casing em. lowering	1

## Assembly Instruction Monteringsanvisning

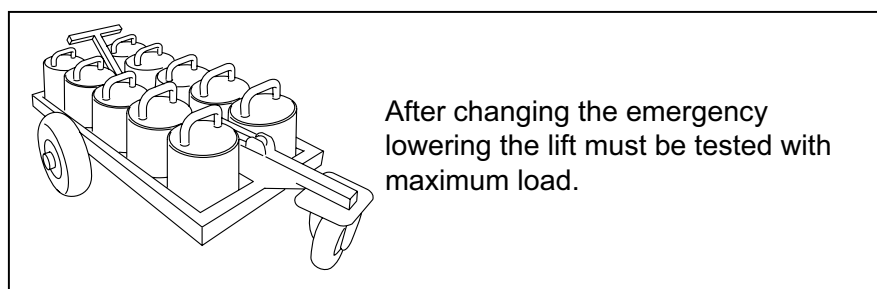
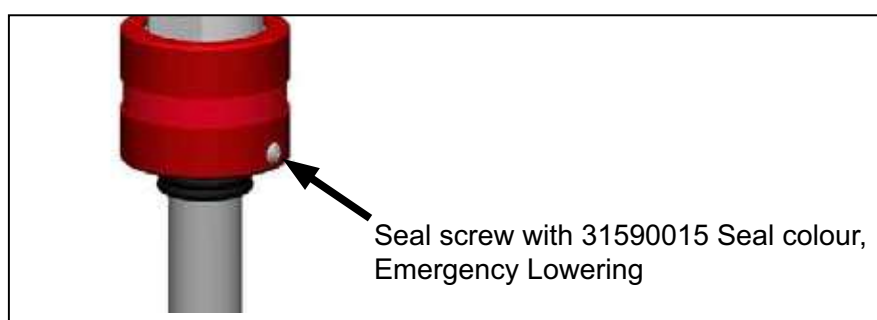
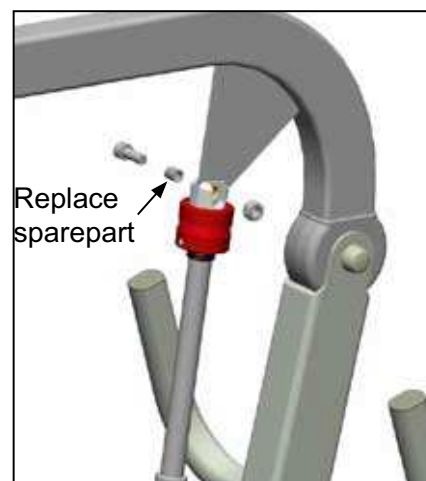
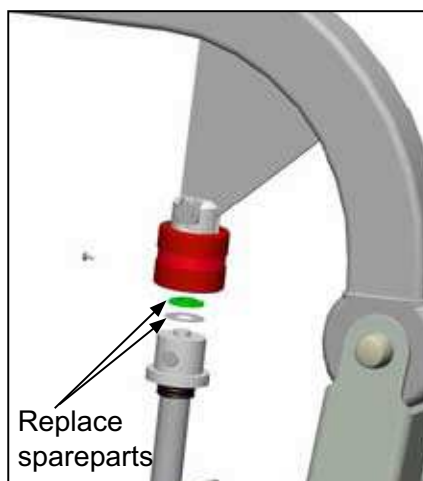
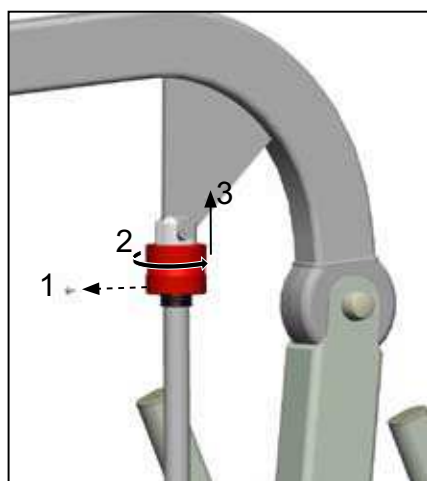
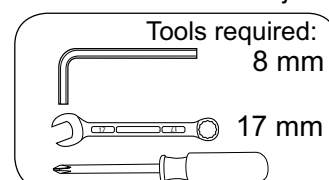
Prod.no: 20190051

3SE630222-04

2007-06-21

Proj 484

Uno,  
Sabina,  
LikoLight up to S/N 2504053:

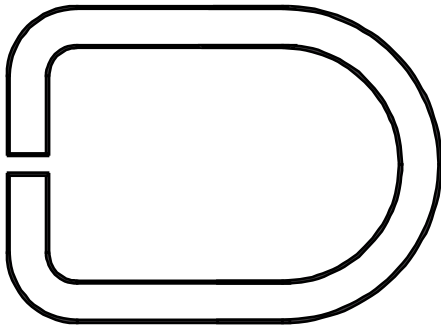




Safety Latch Universal Slingbar

Prod. No. 31590011

From S/N..... Version.....



Details included in sparepart:

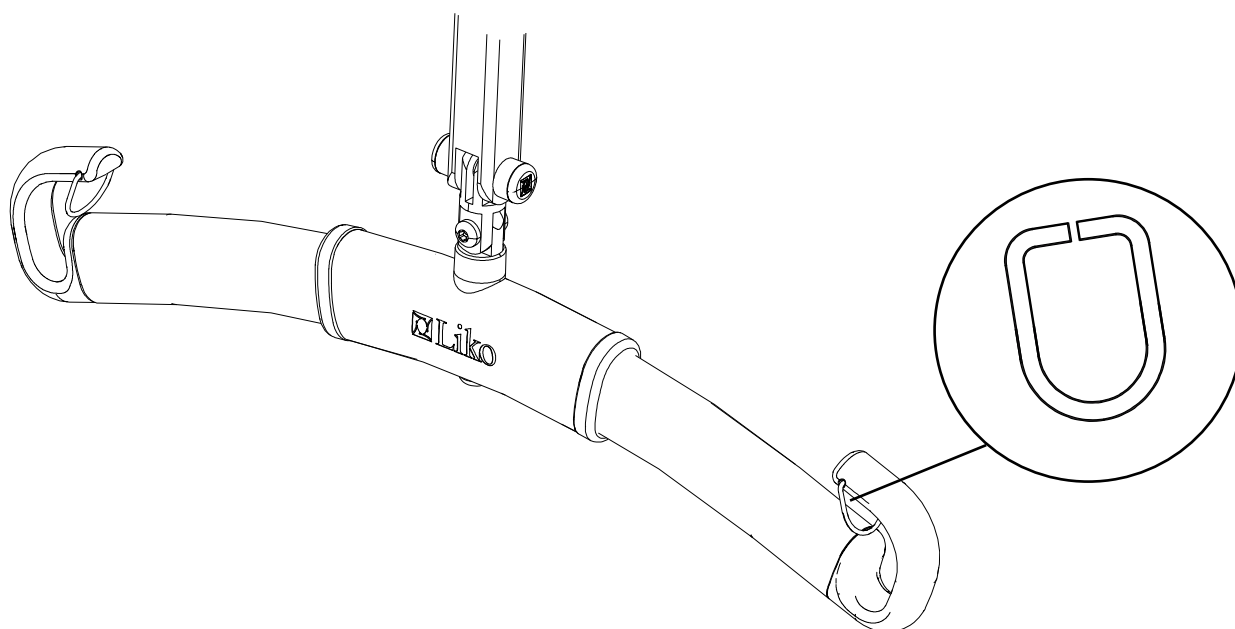
Detail no.	Details:	Unit:
901335192	Safety latch	2

**Assembly Instruction  
Monteringsanvisning**

Prod. No. 31590011

3SE630229-02  
2007-10-30

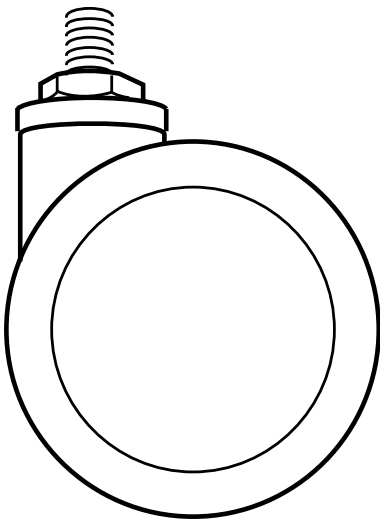
Tools required:



Front Wheel 75 mm standard

Prod. No. 20490014

From S/N.....2503102..... Version.....



Details included in sparepart:

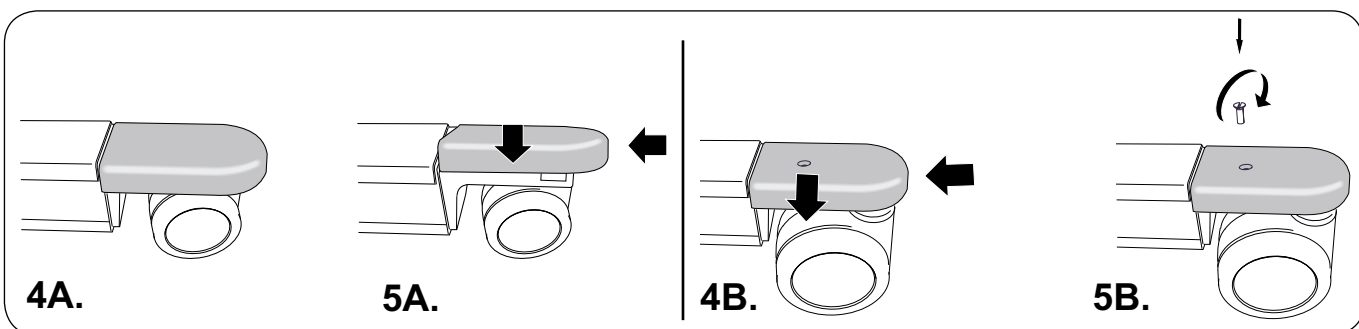
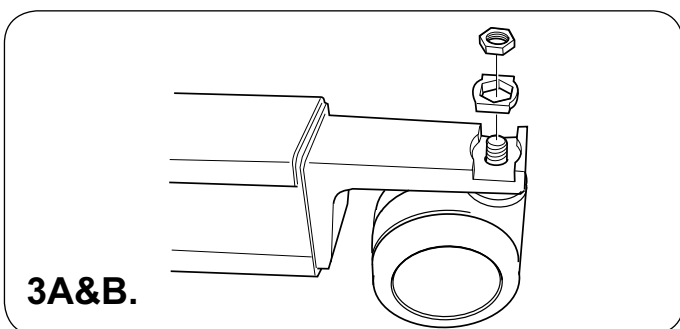
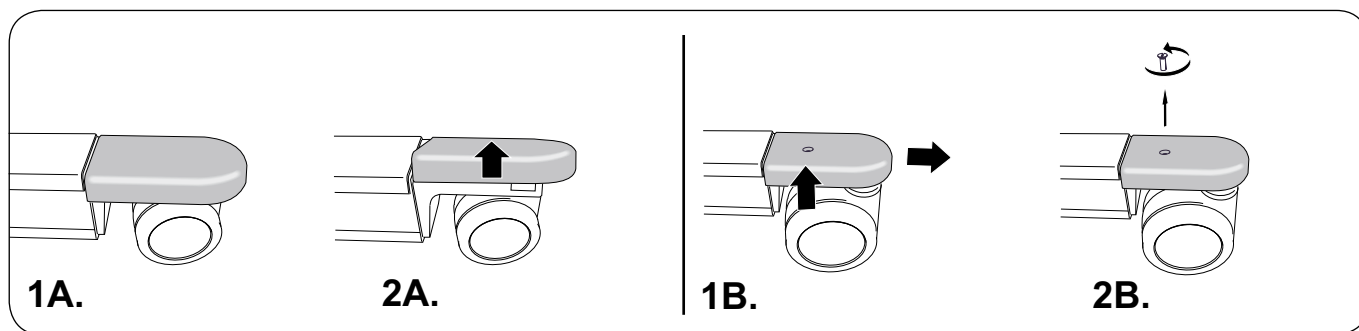
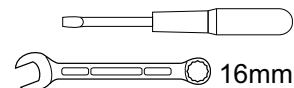
Detail no.	Details:	Unit:
911290211	Front wheel 75 mm Steinco	1

## Assembly Instruction Monteringsanvisning

Prod no: 20390001  
20490014

3SE630220-03  
2007-05-11

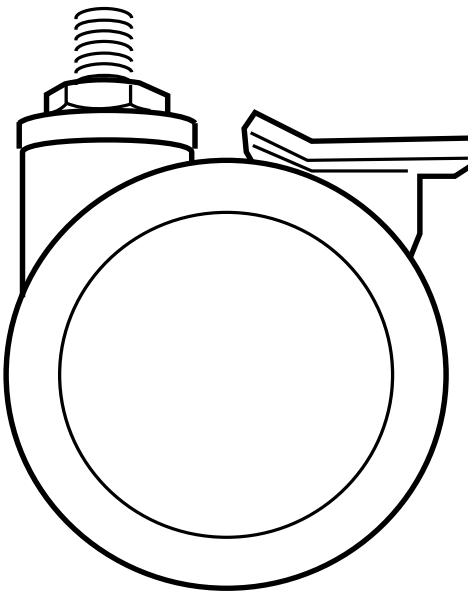
Tools required:



Rear Wheel 75 mm standard

Prod. No. 20490015

From S/N...2503102..... Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
911290212	Rear wheel 75 mm Steinco	1

# Assembly Instruction

## Monteringsanvisning

Prod no: 20390002

20490015

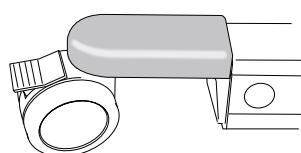
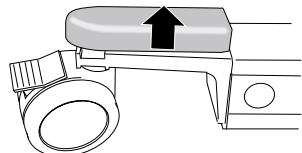
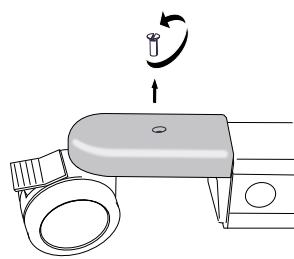
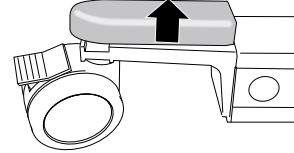
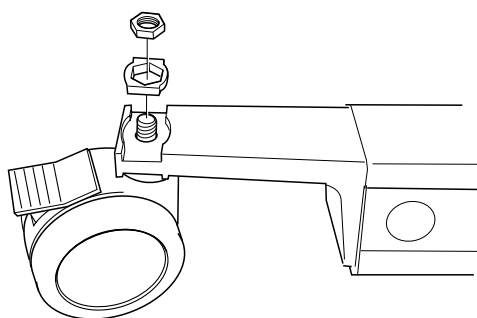
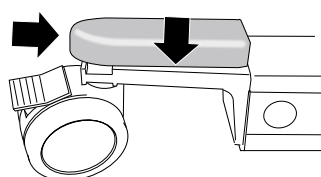
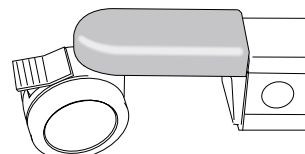
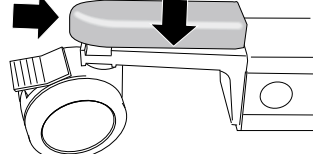
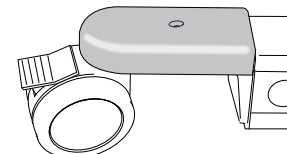
3SE630221-03

2007-05-11

Tools required:



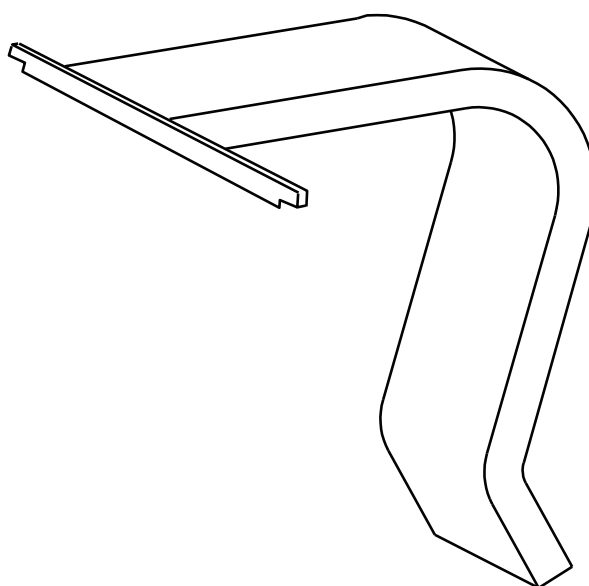
16mm


**1A.**

**2A.**

**1B.**

**2B.**

**3A&B.**

**4A.**

**5A.**

**4B.**

**5B.**

## Hook for handcontrol, 2 ,4 ,6 button

Prod. No. 20090058

From S/N..... Version.....

**Details included in sparepart:**

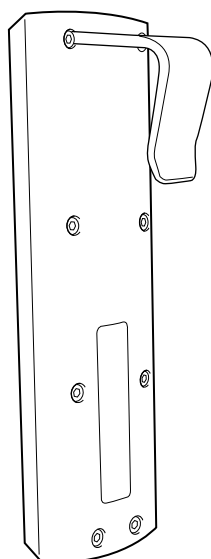
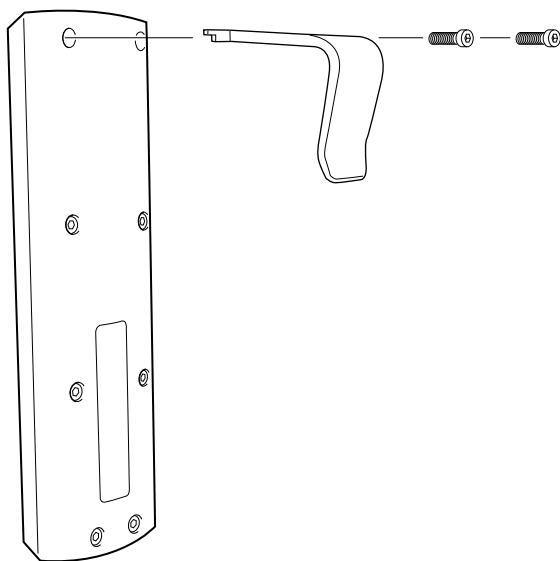
Detail no.	Details:	Unit:
20090058	Hook for handcontrol	1

## Assembly Instruction Monteringsanvisning

Prod. No.20090058

3SE630210-03  
2007-10-30

Tools required:

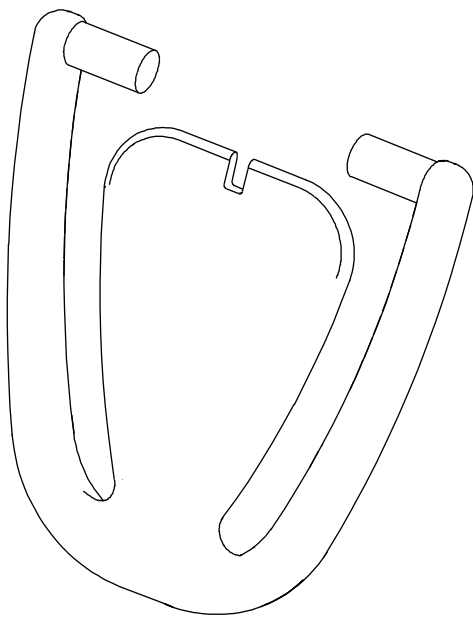




Safety Latch, composite

Prod. No. 31590014

From S/N..... Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
901063508	Safety latch	2

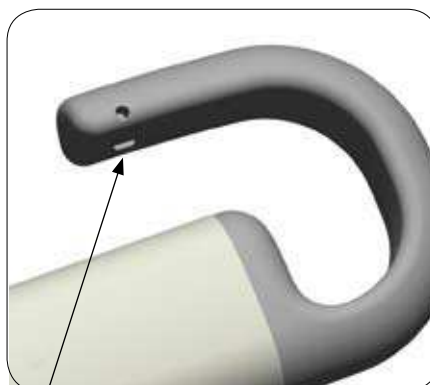
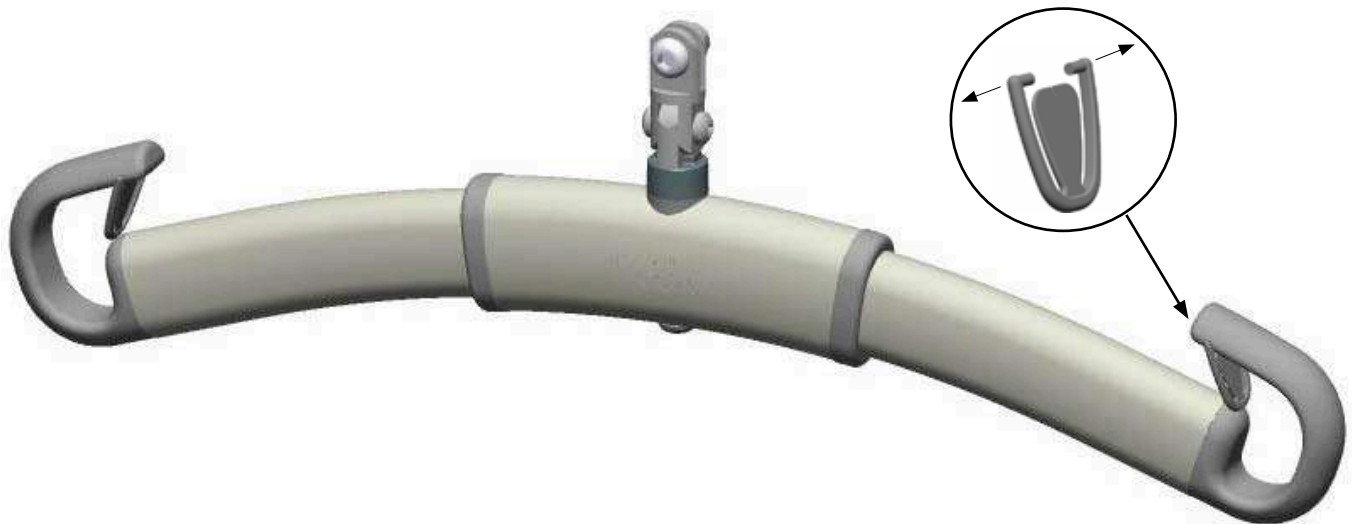
## Assembly Instruction Monteringsanvisning

Prod. No. 31590014

3SE640242-02  
2007-10-29

Use on slingbars from S/N 1221691

Tools required:

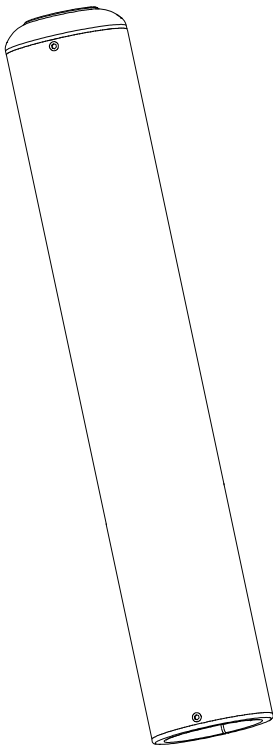


The Safety latch can only be used on composite hooks equipped with a locator.

Outer Tube LA32, 310 mm

Prod. No. 20390017

From S/N..... Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
	See assembly instruction	

## Assembly Instruction Monteringsanvisning

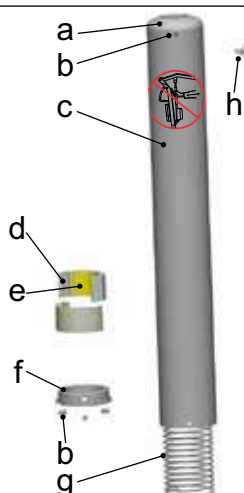
Prod. No. 20390017

3SE650237-01  
2008-11-26

### Contains:

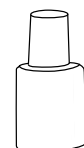
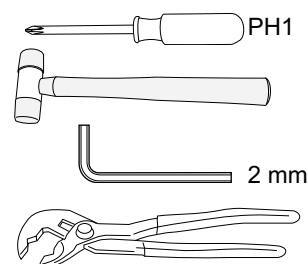
	pce
a Top cover	1
b Screw P6SS M4x5	6
c Tube	1
d Snap bushing	2
e Two sided adhesive	2
f Bushing	1
g Compression spring	1
h Screw 2,9x9,5	1

**Fits:** Uno 100, Uno 102  
LikoLight  
Viking S, Viking XS



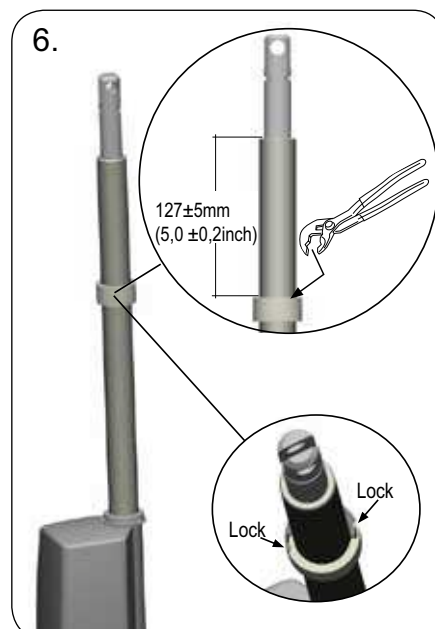
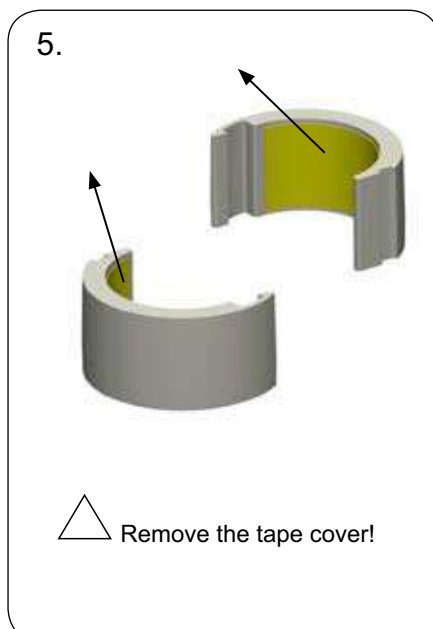
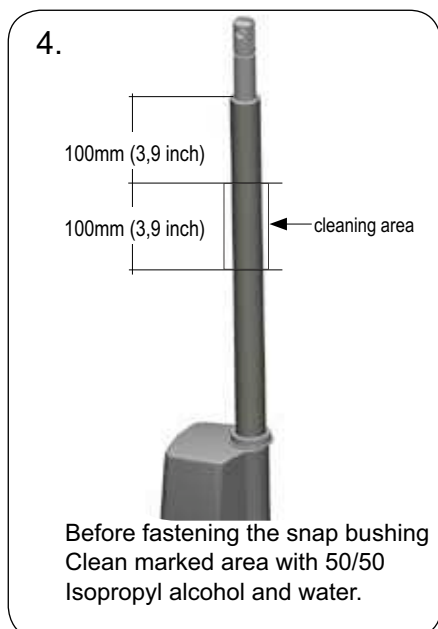
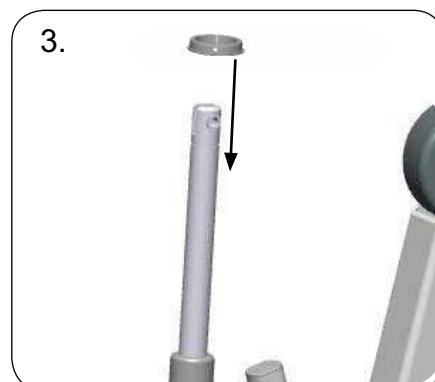
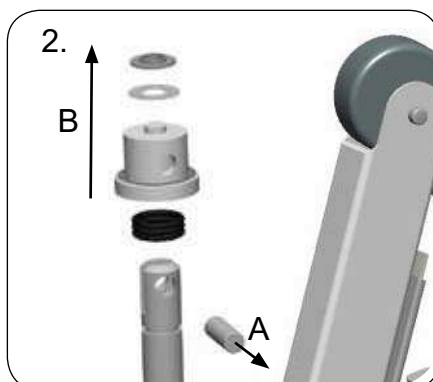
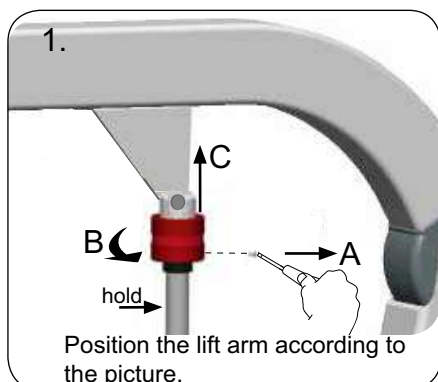
### Tools required:

Isopropyl alcohol and water + rag

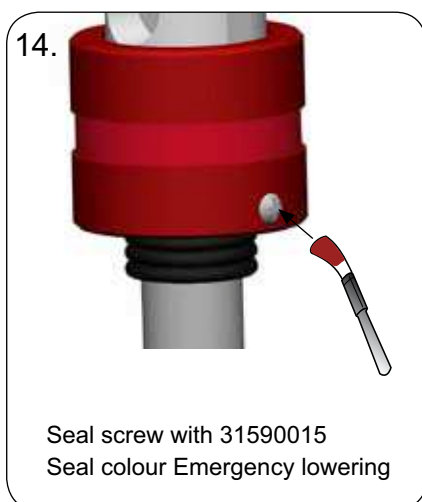
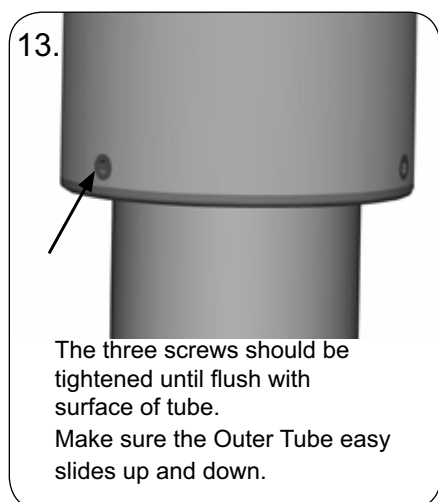
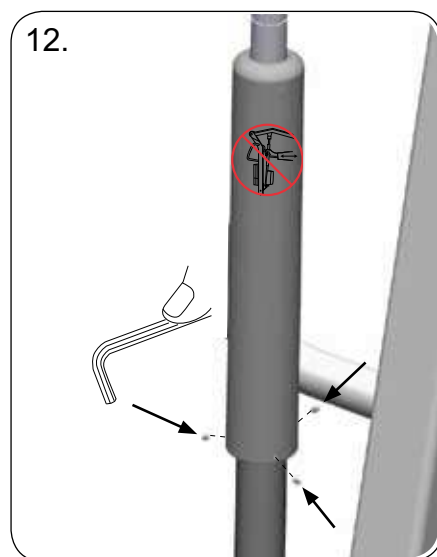
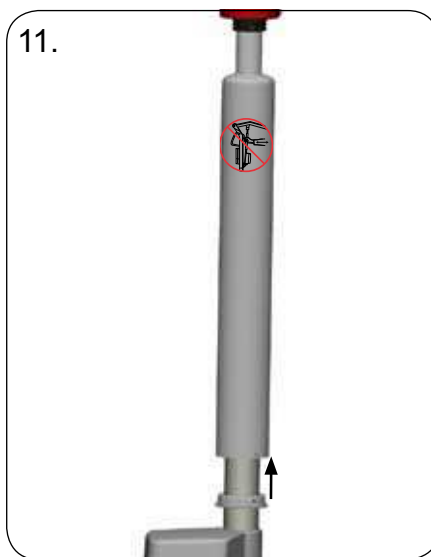
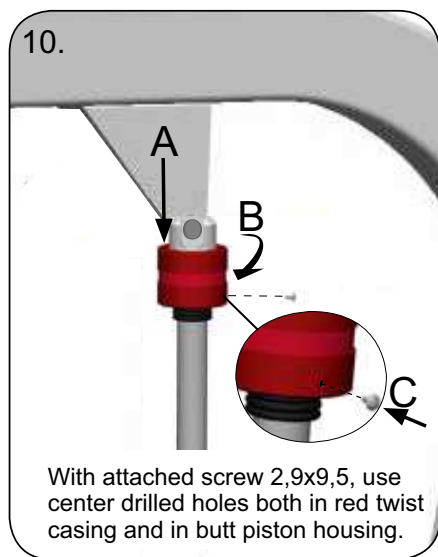
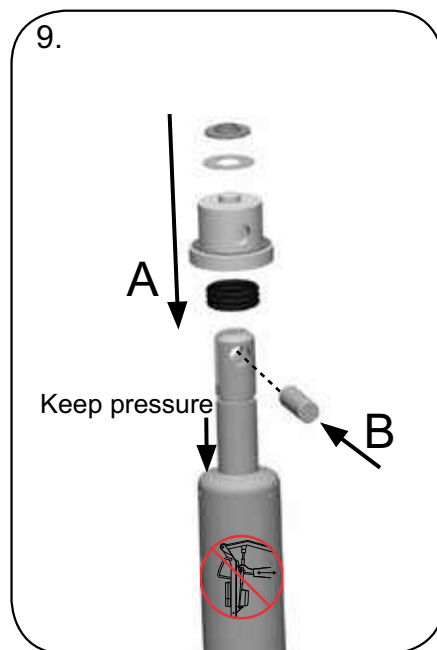
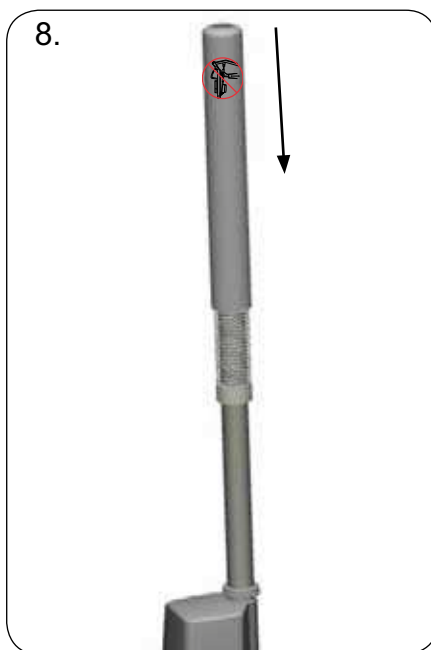
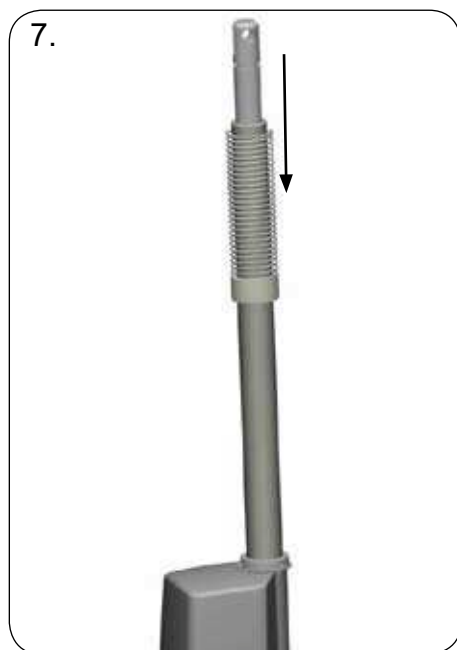


31590015  
Seal colour  
Emergency  
lowering

The motor attachments can be different than the pictures shows!



## Assembly Instruction Monteringsanvisning



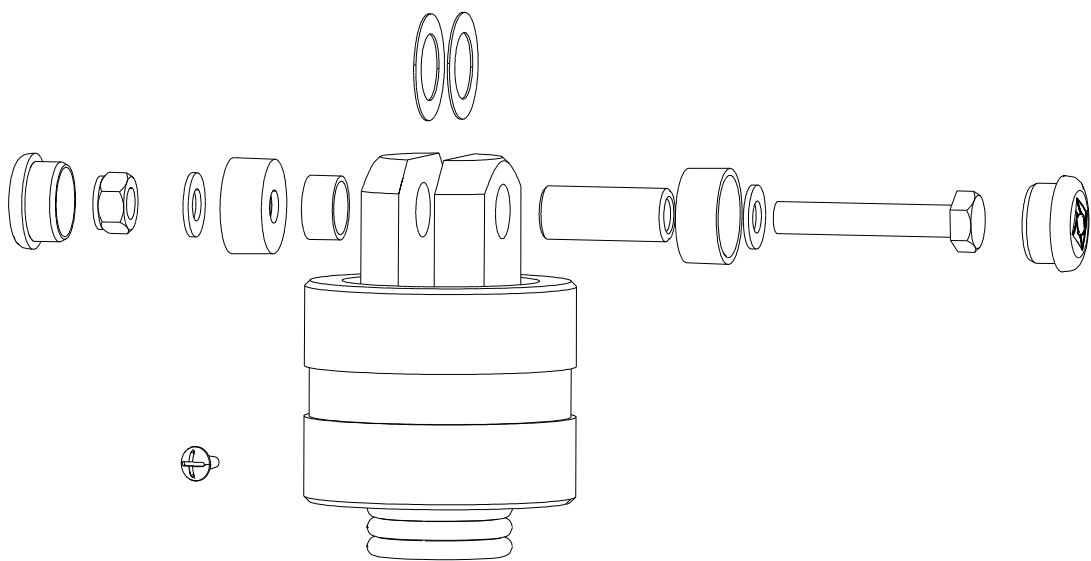
### △ NOTE

- Make sure the spare part is mounted according to the assembly instruction
- Check all functions.
- Repairs and maintenance may only be performed by personnel authorized by Liko and using original Liko spare parts.

Emergency lowering

Prod. No. 20390018

From S/N..... Version.....



Details included in sparepart:

Detail no.	Details:	Unit:
See assembly instruction		

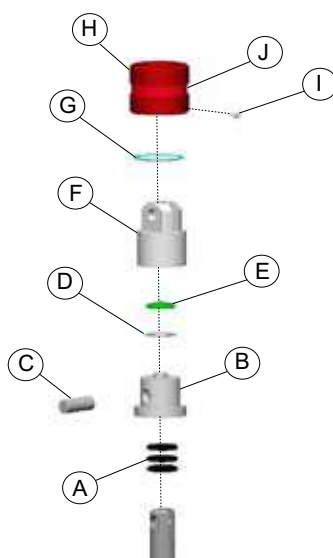
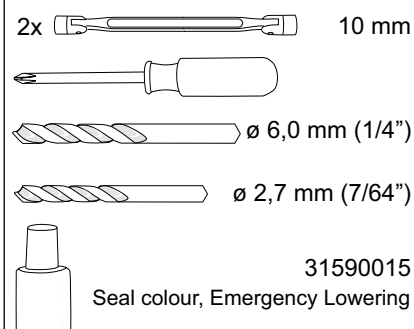
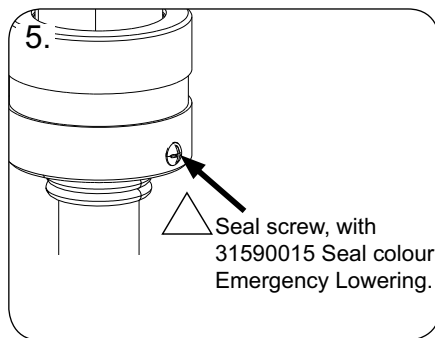
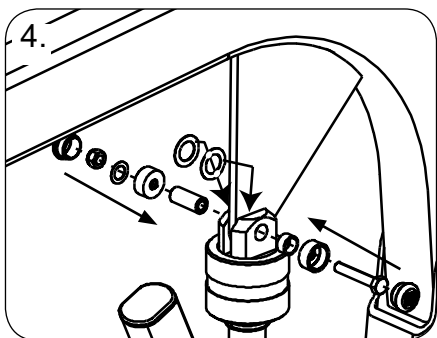
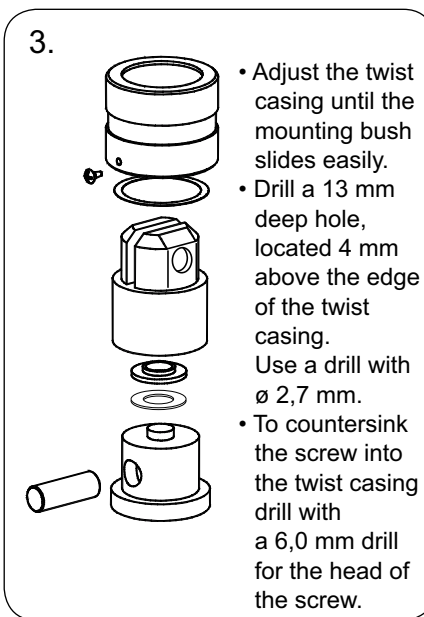
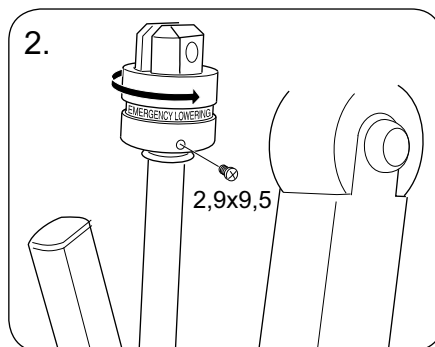
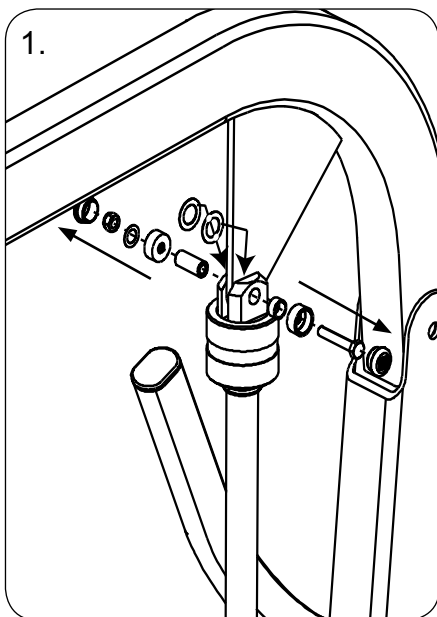
Assembly Instruction  
Monteringsanvisning

Prod. No. 20390018

3SE650245-01  
2009-07-07

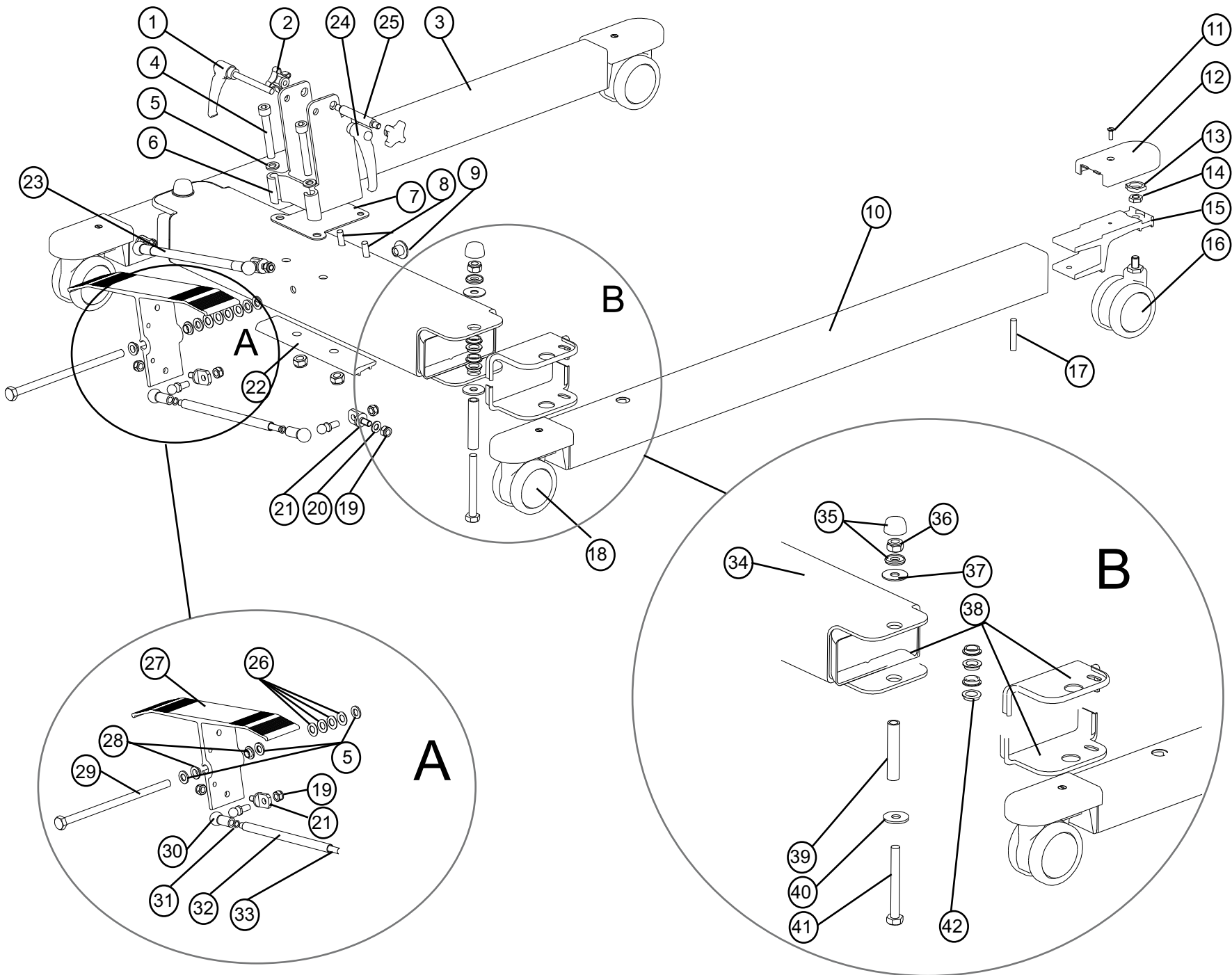
**Contains:**

	Qty:
A. O-ring 20,22x3,53 U102	3
B. Butt piston housing	1
C. Bolt 12x34 Em.lowering	1
D. Shim emergency lowering	1
E. Bushing em. lowering	1
F. Mounting bush	1
G. Washer PTFE em.lowering	1
H. Twist casing	1
I. Screw 2,9x9,5	1
J. Sticker emergency lowering	1
Sleeve bearing Mob.24	1
Cover hat Liko bottom	2
Cover hat Liko	2
Screw M6S M6x35	1
Washer PS 6x12x1	1
Locking nut M6 Nyloc	1
Nylon bearing 10x12x6	1
Washer 12,5/20x0,42	2


**Tools required:**

**Fits:** LikoLight

**NOTE**

- 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 Liko and using original Liko spare parts.

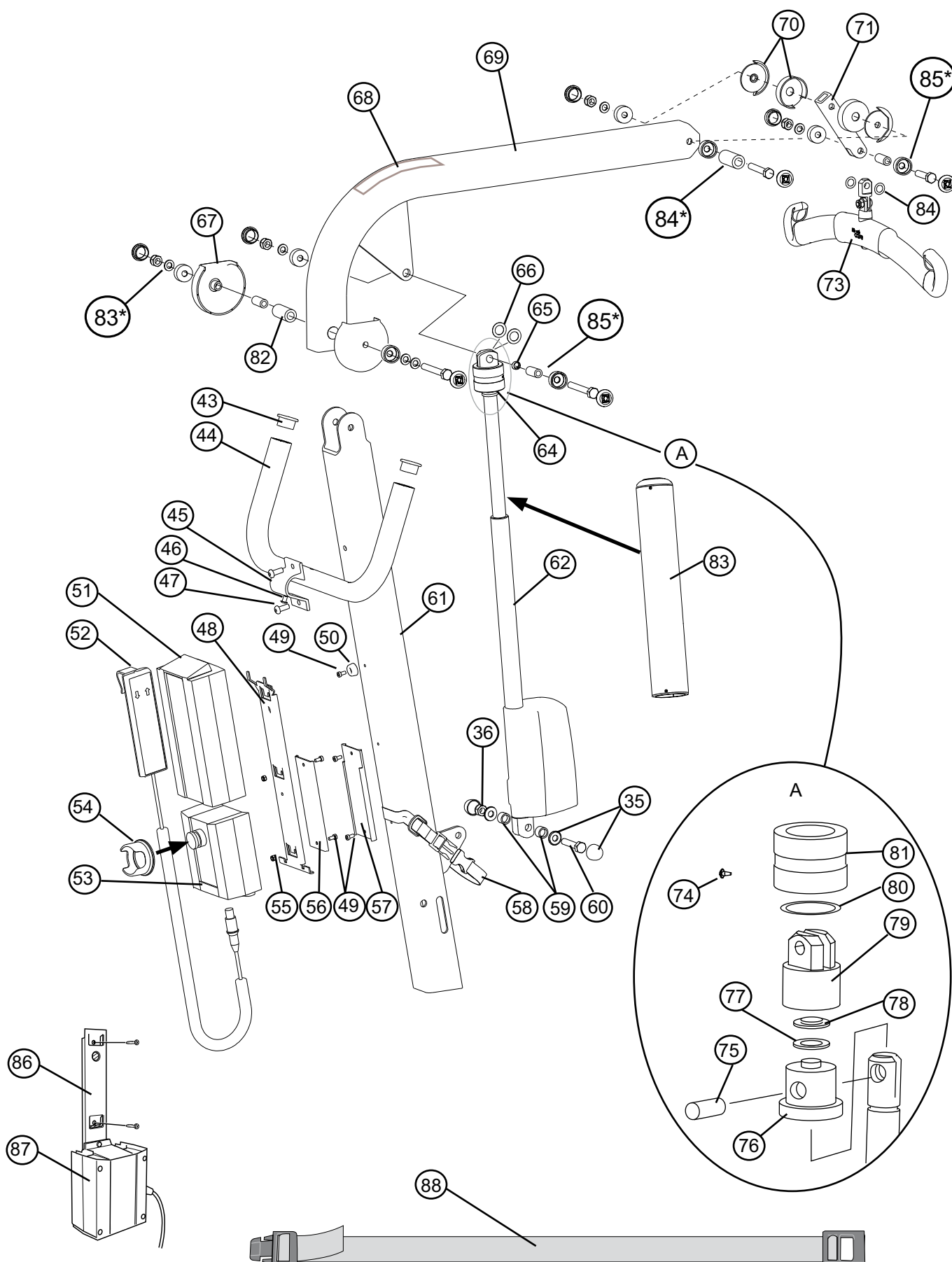
# Exploded views Likolight





## Exploded views

### LikoLight

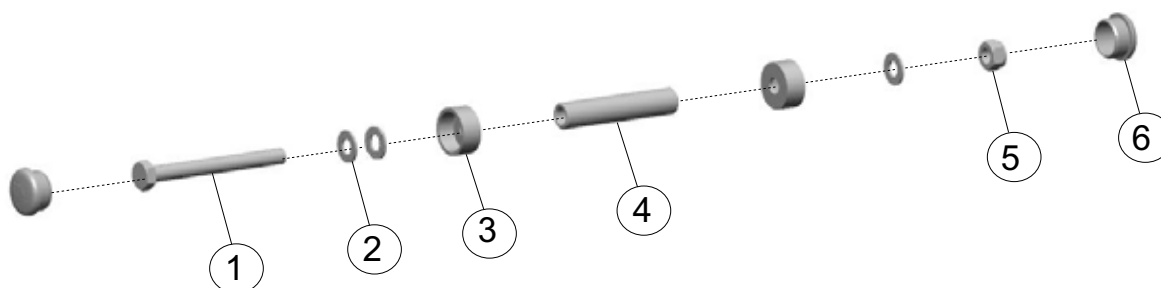


## Exploded views

### LikoLight

Position 83 (page 57)

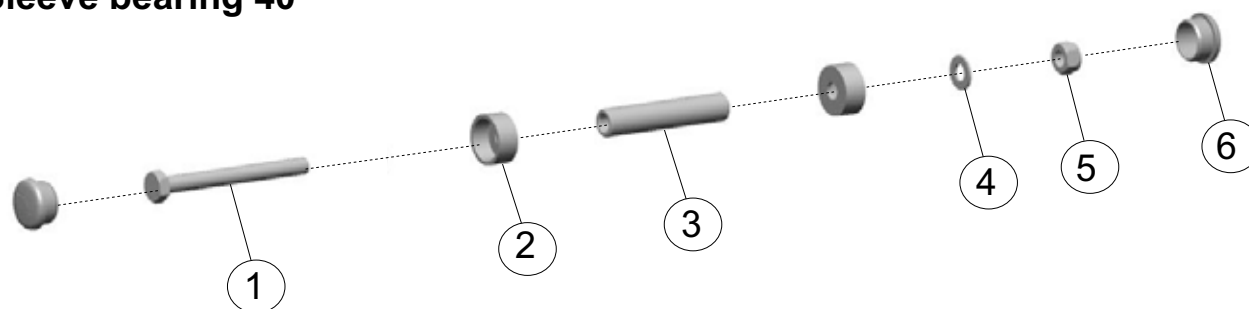
#### Sleeve bearing 52



1	930000525	Screw M6S M6x65	1	st
2	930000570	Washer PS 6x12x1	3	st
3	901350312	Cover hat Liko bottom	2	st
4	901504209	Sleeve bearing Mob.52	1	st
5	930000117	Lock nut M6 Nyloc	1	st
6	901350311	Cover hat Liko	2	st

Position 84 (page 57)

#### Sleeve bearing 40

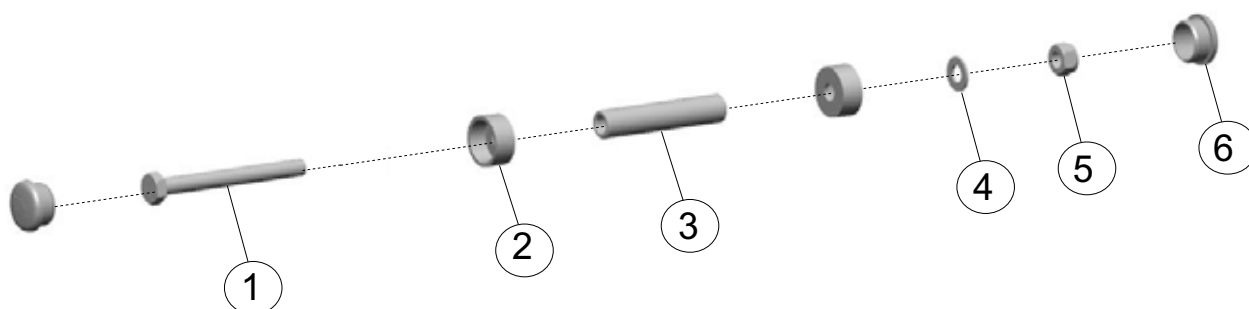


Pos. No.	Article No.	Name	Quantity
1	930000519	Screw M6S M6x50	1
2	901350312	Cover hat Liko bottom	2
3	901504206	Sleeve bearing Mob.40	1
4	930000570	Washer PS 6x12x1	1
5	930000117	Lock nut M6 Nyloc	1
6	901350311	Cover hat Liko	2

## Exploded views

### LikoLight

Position 24 (page 57)  
**Sleeve bearing 24**



Pos. No.	Article No.	Name	Quantity
1	930000524	Screw M6S M6x35	1
2	901350312	Cover hat Liko bottom	2
3	901504201	Sleeve bearing Mob.24	1
4	930000570	Washer PS 6x12x1	1
5	930000117	Lock nut M6 Nyloc	1
6	901350311	Cover hat Liko	2

# Components

## LikoLight

Prod. No. 2030001

Pos. No.	Article No.	Name	Quantity
1	930000497	Lever M8x70 grey	1
2	930000285	Locking wheel 1513 - M8	2
3	90125015V	Leg left Light	1
4	930000343	Screw MC6S M10x70 A2	2
5	930000314	Washer BRB 10x18x2 A2	5
6	901825043	Foot light	1
7	901992516	Foot panel Light	1
8	930000311	Screw MC6S M8x25 A2	2
9	930000480	Nut brass	1
10	90125015H	Leg right Light	1
11	930000424	Nylon screw M5x16 Nature	4
12	900000419	Front fork cover grey lig	4
13	901825082	front fork locking light	4
14	930000268	Nut M6LM M10 A2	4
15	901012611	Front fork Viking	4
16	911290211	Front wheel 75mm Steinco	2
17	930000060	Stop screw P6SS M8x45	4
18	911290212	Rear wheel 75mm Steinco	2
19	930000303	Locking nut M8 nyloc A2	10
20	930000286	Washer BRB 8,4x16x1,6 A4	2
21	901925142	Link attachment stainless	4
22	901992512	Reinforcement profile Light	1
23	901825102	Tube alu. 10x12x175	1
24	930000496	Lever M8 grey	1
25	901992521	Mast bolt Light stainless	1
26	930000482	Disc spring 20x10,2x0,8	4
27	901982506	Pedal Light	1
28	920000082	Nylon bearing 10x12x6	2
29	930000481	Screw M6S M10x200 A2	1
30	930000309	Ball coupling M8 Stainless	4
31	900000420	O-ring 7,1x1,6	4
32	901825101	Tube alu. 10x12x171	1
33	931429031	Threaded steal rod M8x198 A2	2
34	901825052	Middle Beam Light	1
35	900000043	Cover hat M10 grey U102	4
36	930000300	Locking nut M10 nyloc A2	5
37	930000308	Washer 10,5x30x1,5 A2	2
38	901992517	Leg cover Light (3 piece)	2
39	901251141	Leg housing 10x14x72 stainless	2
40	930000479	Washer 10,5x30x2,5 A2	2

# Components

## LikoLight

Prod. No. 2030001

Pos. No.	Article No.	Name	Quantity
41	930000307	Screw M6S M10x90 A2	2
42	901251142	Leg bearing 18x14x22x5 stainless	8
43	900000417	End cover Light grey	2
44	901982509	Handle Light	1
45	901982507	Hadle attachment	1
46	900000421	Rivet 6,4x9,5 alu	1
47	930000153	Skruv K6S M8x20 A2	2
48	900000001	Attachment control box	1
49	930000297	Screw MC6S M5x10 låg A2	5
50	900000418	Foot of rubber 14.M.005	1
51	950000044	Batterybox	1
52	950000049	Handcontrol EM	1
53	950000057	Controlbox Light	1
54	901535091	Emergency guard	1
55	930000313	Locking nut M5 Nyloc A2	2
56	901992518	Profile Light	1
57	901992519	Mast attachment	1
58	901425032	Arm Strap Light	1
59	930000294	Screw MC6S M10x25 A2	1
60	930000302	Screw M6S M10x50 A2	1
61	901982503	Liftmast Light	1
62	940000007	Actuator Light	1
63			
64	900000800	O-ring 20,22x3,53 U102	3
65	920000017	Nylon bearing 10x12x6	1
66	900001372	Washer 12,5/20x0,42	2
67	901969003	Plastic cover mast	2
68	901425041	Cover Light	1
69	901982502	Liftarm Light	1
70	901979002	Lift arm insert set U102	1 set
71	901979004	Link alu. U102	1
72	901635021	Friction washer	2
73	900002081	Base Universal Slingbar	1
74	930000503	Screw 2,9x9,5	1
75	931072204	Bolt 12x34 Em.lowering Uno	1
76	901072302	Butt piston housing	1
77	901979011	Shim emergency lowering Uno 28x13x0,42	1
78	901979010	Bushing em. lowering	1
79	901072203	Mounting bush	1
80	920000500	Washer PTFE em.lowering U102	1

# Components

## LikoLight

Prod. No. 2030001

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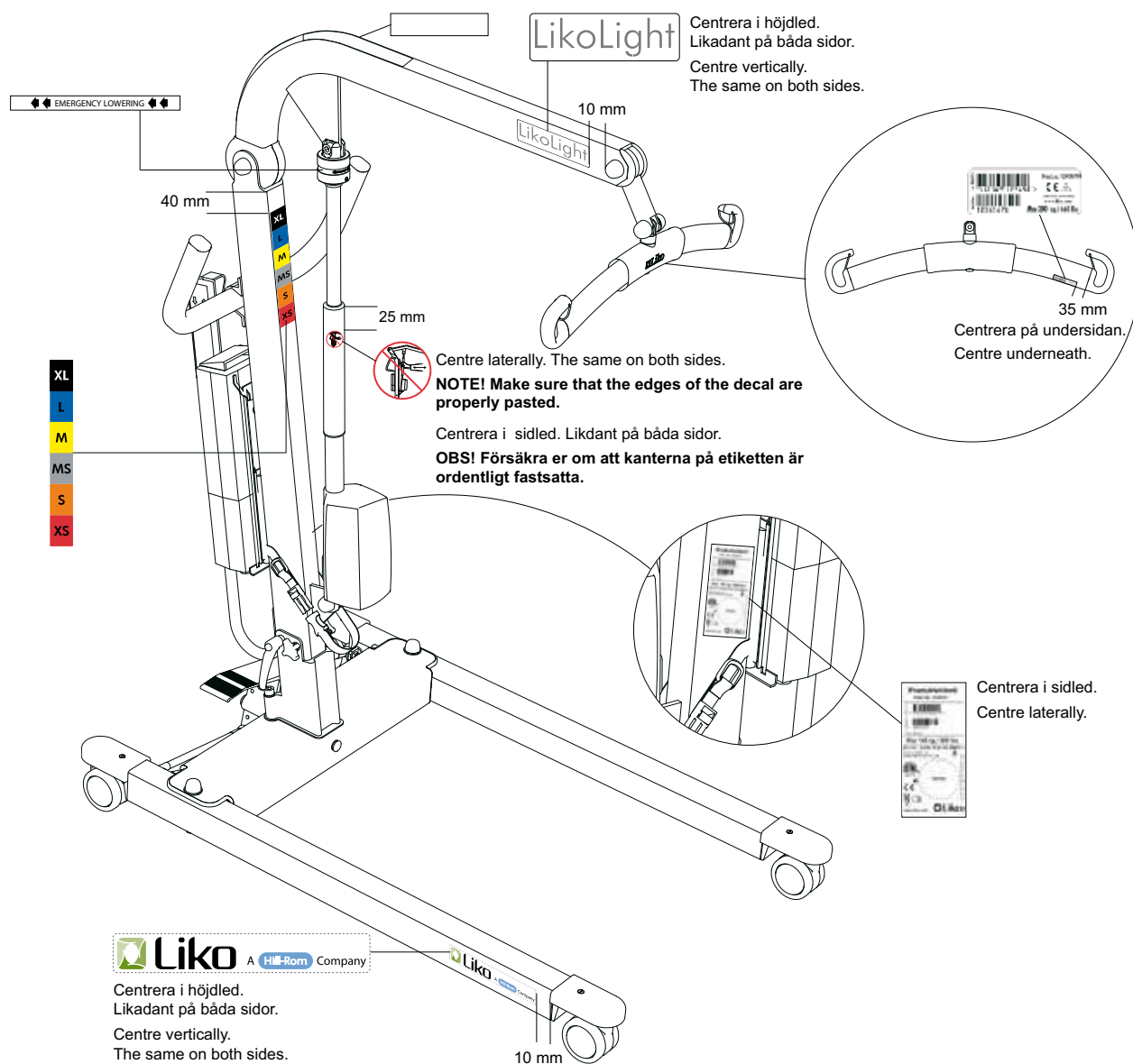
Pos. No.	Article No.	Name	Quantity
81	901072201	Twist casing	1
82	901529011	Arm casing Viking S	1
83	20390017	Outer Tube LA32 310mm	1
83	Page 58	Sleeve bearing 52	1
84	Page 58	Sleeve bearing 40	1
85	Page 59	Sleeve bearing 24	2
86	950000039	Charger CHJ2-02-000-3J	1
87	900000063	Attachment for controlbox	1
88	900000423	Strap Light	1

## Decal Instruction Dekalanvisning

Prod. No. 2030001

7SE145204-02  
2009-02-07

2 x		Size/Storlek: 191 x 29 mm Prod. No./Art. nr. 900002232
2 x		Size/Storlek: 120 x 38 mm Prod. No./Art. nr. 900000415
1 x		Size/Storlek: 207 x 25 mm Prod. No./Art. nr. 900000542
1 x		Size/Storlek: 99 x 8 mm Prod. No./Art. nr. 900000054
1 x		Size/Storlek: 107 x 52 mm Prod. No./Art. nr. 900001457 Layout No. 7
1 x		Size/Storlek: 52 x 21 mm Prod. No./Art. nr. 900001680 Layout No. 42
1 x		Size/Storlek: 27 x 200 mm Prod. No./Art. nr. 901425041
2 x		Size/Storlek: 50 x 50 mm Prod. No./Art. nr. 900002568







## Periodic inspection

Prod.No. 2030001  
2009-06-01

### Customer Reference:

Lift type: LikoLight .....  
Prod No: 2030001 .....  
Serial No: .....  
Prod. Year: .....

Contract No: .....  
Name: .....  
Address: .....  
(Zip Code) .....

**Comments: 1. Attention 2. Correct Immediately 3. Do not Use!**

### Check point:

### Comments:

- ☐ 1 Type/model identification decal.\*
- ☐ 2 Visible damage to the lift surface, finish.

### Base

- ☐ 3 Castor wheels and forks.\*
- ☐ 4 Castor brakes.\*
- ☐ 5 Base covers.\*
- ☐ 6 Base opening and closing linkage.\*

### Mast

- ☐ 7 Locking handles.\*
- ☐ 8 Lift arm hardware & covers.\*
- ☐ 9 Flexlink.
- ☐ 10 Slingbar.\*
- ☐ 11 Mast actuator.\*
- ☐ 12 Electrical cable installations.\*
- ☐ 13 Handcontrol. \*
- ☐ 14 Emergency Stop function.\*
- ☐ 15 Electrical emergency-lowering device functions.\*
- ☐ 16 Charger function.\*

### Load Testing

- ☐ 17 Max. Load Test.
- ☐ 18 Mechanical Emergency Lowering Load test.

### Documentation

- ☐ 19 Instructions.

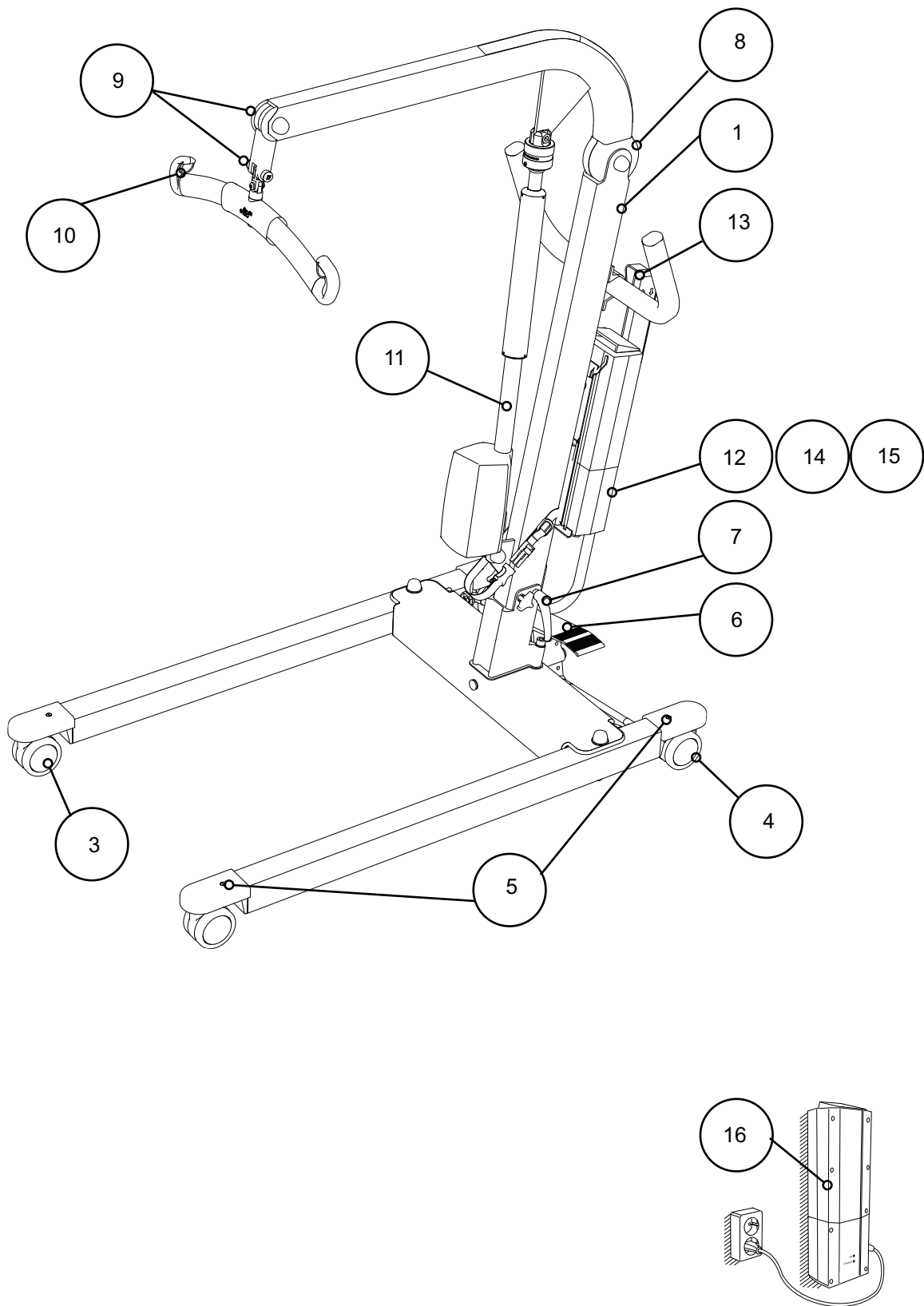
\* = In the picture at the next page, the check point locations on the product shows.  
Detailed instructions for the check points at the following pages.

**In accordance with ISO 10535:2006 Annex B- Periodic inspection**

Date: ..... Load test weight: .....

Serviced by: .....

Check points



# Instructions for the check points

## 1 Type/model identification decal

- Verify presence of mast decal with model type and serial number.

## 2 Visible damage to the lift surface, finish

- Check for scratches, dents, deformities or unusual surface wear.

## 3 Castor wheels and forks

- Roll the lift, unloaded, along the floor, checking to ensure that all castors roll and turn freely.
- Verify that the castor fasteners are tight. There should not be any play between the fork and the castor nut.

## 4 Castor brakes

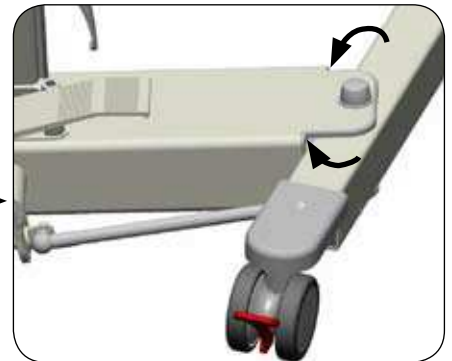
- Lock the brakes. Make sure the wheels do not turn and the castor housing does not swivel when pushing the lift.

## 5 Base covers

- Inspect the plastic protective cover shells for cracks, deformation or gaps.

## 6 Base opening and closing linkage

- Inspect foot pedal for wear/sharp-edges.
- Press the right side to widen the base and the left side to make it narrower.
- Inspect linkage arms and ball coupling hardware.
- Verify base manually opens & closes to max. & min. position. →

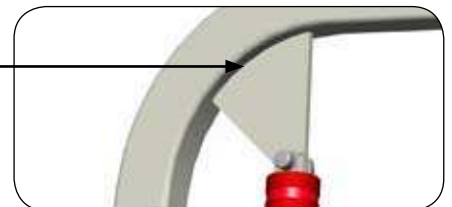


## 7 Locking handles

- Loosen & retighten locking handles. Verify that threads are not damaged or binding.

## 8 Lift arm hardware & covers

- With the lift in it's lowest position, manually raise the lift arm. Verify that the shaft lowers and raises freely. If the arm is binding, the mounting screw is too tight, or the outer tube is incorrect.
- Inspect the plastic protective cover shells for cracks, deformation or gaps.
- Inspect welding between arm and fastening device , for deformation or cracks. →



## 9 Flexlink

### Flexlink - Arm

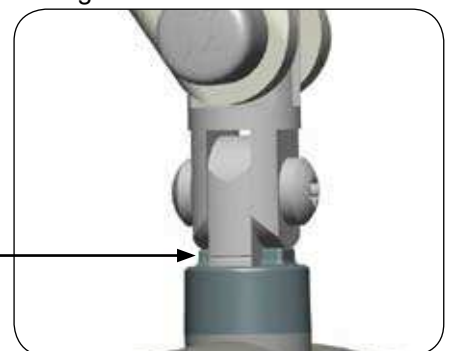
- With the slingbar hanging in it's lowest position, manually raise the slingbar and flexlink. Verify that the flexlink arm lowers and raises freely. If the flexlink is binding the screw is too tight.
- Inspect the plastic protective cover shells for cracks, deformation or gaps.

### Flexlink - Slingbar

- With the slingbar hanging in it's lowest position, manually pivot the slingbar side-to-side. Verify that the flexlink arm lowers and raises freely. If the flexlink is binding, the mounting screw is too tight.
- Verify that hardware covering plastic caps are secure.

## 10 Slingbar

- Inspect visually to ensure that the slingbar is free from any scratches, sharp edges or deformities.
- Check that the unit rotates freely on its bearings.
- Make sure the lower slingbolt has a mark, as the picture shows. →
- If not, the slingbar must be replaced.
- Make sure that both safety latch clips are mounted and fall back against the body of the slingbar.
- On old model of slingbar, made of steel; Verify that the o-ring is present and positioned in the center bolt groove.



## **11 Mast actuator**

- Verify that the upper and lower actuator fasteners to the mast are tight.
- If the lift is equipped with Outer tube: With the lift arm in its highest position, pull the Outer Tube gently to the top and bottom (do not let it go). Make sure the Outer Tube does not get stuck in any position.
- Verify that the Outer Tube has no cracks, deformation or gaps.

## **12 Electrical cable installations**

- Verify that all cables are properly inserted. Reinsert if uncertain.
- Verify that battery is charged.

## **13 Handcontrol**

- With the emergency stop out, verify that all functions on the handcontrol are working.

## **14 Emergency Stop function**

- Press in the emergency stop button. With the emergency stop pressed in, verify that the lift does not operate with the hand control buttons.
- Turn the red emergency stop button in the direction of the arrows (clockwise). Verify that the button releases from the locked position into the raised, open position.

## **15 Electrical emergency-lowering device functions**

- With the emergency stop out, verify that the electrical emergency lowering device works.

## **16 Charger function**

- Insert the cable into a power outlet (110-240V).
- Remove the battery pack from the lift by raising the catch at the back of the battery pack and lifting upwards. Place the battery pack on the charger. Check that the charger is plugged into the wall socket and that the diodes on the front of the charger lights up (indicates charging).

## **17 Max. Load Test**

- Run the lift with maximum load (140kg / 308lbs) all the way up and down.
- Press right / left side to widen the base with maximum load (140kg / 308lbs).
- Make sure all four wheels have contact with the floor.
- Listen for peculiar noises and vibrations.

## **18 Mechanical Emergency Lowering Load test**

- Check to ensure that the mechanical emergency lowering device functions with load (140kg / 308lbs).
- Manually turn the red actuator collar in the direction of the arrows (Clockwise) to lower.
- Check that the locking screws on the emergency-lowering device are secured with sealcolour.

## **19 Documentation**

- Instruction guide/ Service Manual



A Hill-Rom Company

# LikoLight Preventative Maintenance

2009-06-01

## Customer Reference:

Lift type:	LikoLight
Serial No:	
Prod No:	2030001
Prod. Year:	

Contract No:
Name:
Address:
(Zip Code)

## Check points:

### Base

Month 12 24 36 48 60 72 84 96 108 120

<input type="checkbox"/> 1a Clean surface finish.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 2 Clean/replace front castors.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 3 Clean/replace rear castors, check brakes.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 4 Base opening and closing linkage lubrication .....			<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	

### Mast

<input type="checkbox"/> 1b Clean surface finish .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 5 Mast sections lift arm, lubrication .....			<input type="checkbox"/>		<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>
<input type="checkbox"/> 6a Flexlink / Lift arm joint.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 6b Flexlink wear.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 7 Slingbar .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 8 Battery check/ replacement .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

When maintenance is performed; mark specified square with "X"  
When part is replaced; mark specified square with "R"

Lubricate with PTFE or silicon grease

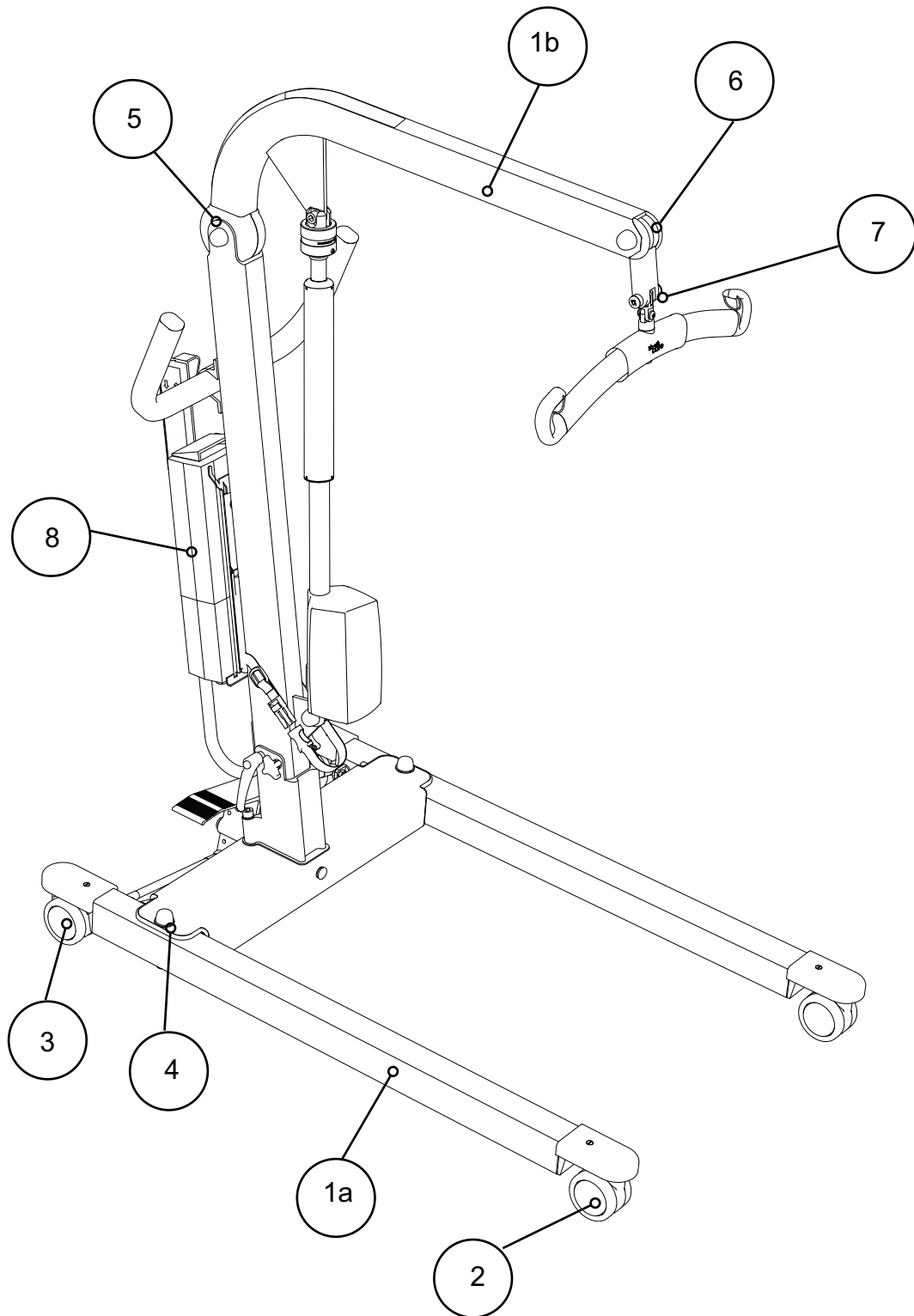
In the picture at the next page, the check point locations on the product shows.  
Detailed instructions for the check points at the following pages.

Interval/Month: \_\_\_\_\_

Date: \_\_\_\_\_

Serviced by: \_\_\_\_\_

## Check points



## Instructions regarding the check points for LikoLight

### 1 a&b Surface treatment

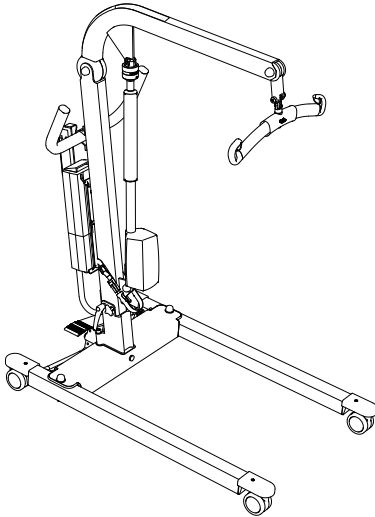
Lift type:	Serial No:	Prod. Year:	Contract No:
------------	------------	-------------	--------------

Month    12   24   36   48   60   72   84   96   108   120  
 Check:   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐

**Name:**

**Address:**

**(Zip Code)**



Clean the patient lift with warm water or ethanol.

**Warning! Do not use chemicals containing phenol or chlorine, since the aluminium parts may be damaged.**

### 2 Front castors

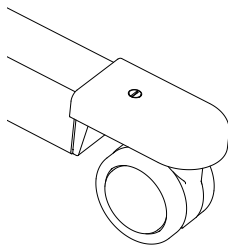
Lift type:	Serial No:	Prod. Year:	Contract No:
------------	------------	-------------	--------------

Month    12   24   36   48   60   72   84   96   108   120  
 Check:   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐  
 Replace:                      ☐                      ☐

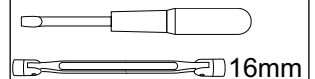
**Name:**

**Address:**

**(Zip Code)**



**Tools required**



- Check and clean front castors.  
 If wheels are in poor condition, replace them with spare part  
 20390001 (for LikoLight with S/N up to 2503101)  
 20490014 (for LikoLight with S/N from 2503102)
- Remove the front fork cover and inspect safety casing and bolt for cracks or fractures.
- If forks are bent or fractured in bolt channel, replace them.

***Recommended replacement every 5th year!***

## Instructions regarding the check points for LikoLight

### 3 Rear castors

Lift type:	Serial No:	Prod. Year:	Contract No:
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Month	12	24	36	48	60	72	84	96	108	120
Check:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replace:				<input type="checkbox"/>						<input type="checkbox"/>

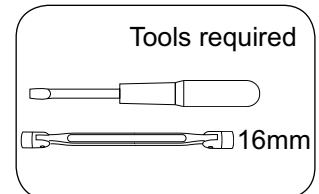
**Name:**

**Address:**

**(Zip Code)**



- Check and clean rear castors.
- Check the brakes. They should lock in all directions.
- Remove the front fork cover and inspect safety casing and bolt for cracks or fractures.



If wheels are in poor condition, replace them with spare part  
20390002 (for LikoLight with S/N up to 2503101)  
20490015 (for LikoLight with S/N from 2503102)

**Recommended replacement every 5th year!**

### 4 Base opening and closing linkage

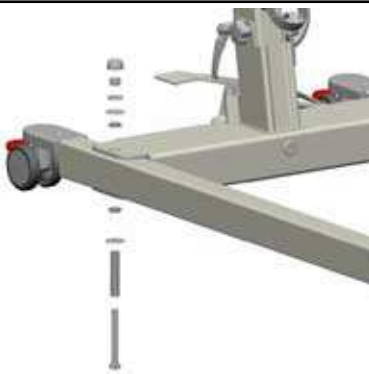
Lift type:	Serial No:	Prod. Year:	Contract No:
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Month	12	24	36	48	60	72	84	96	108	120
Check:			<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	

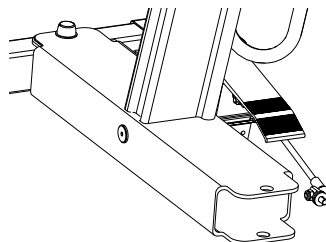
**Name:**

**Address:**

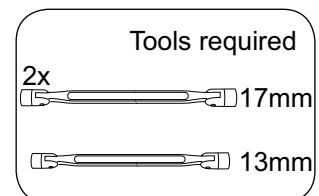
**(Zip Code)**



- Remove hardware covers from middle beam.
- Remove leg from middlebeam.
  - (a) Remove pivot bolt, inner and outer bearing sleeves and hardware.
  - (b) Remove link arm cover, bolt and nut.



- Remove plastic covers and inspect middle beam edges for burrs. File smooth if required.
- Clean and inspect the three pieces of plastic cover. Replace if cracked or deformed.
- Clean, lubricate and re-assemble pivot bolt, bearing sleeves and hardware.
- Tighten pivot bolt and apply plastic hardware covers.





## Instructions regarding the check points for LikoLight

### 5 Mast sections Lift arm

Lift type:	Serial No:	Prod. Year:	Contract No:
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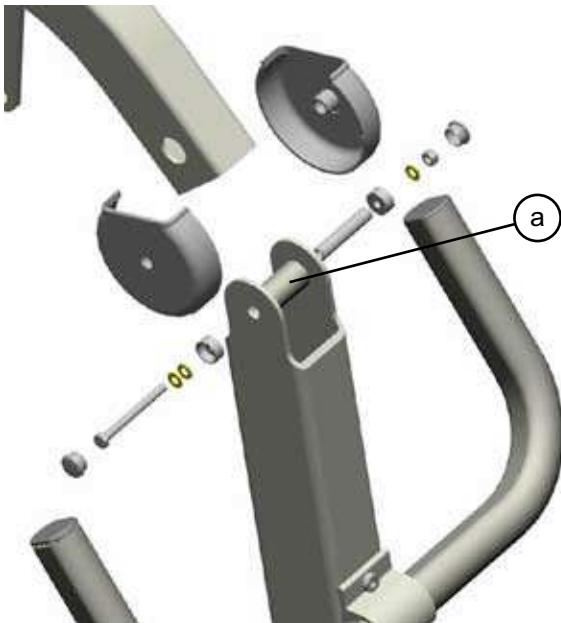
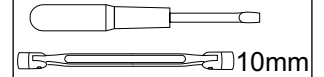
Month    12   24   36   48   60   72   84   96   108   120  
 Check:            ☐            ☐            ☐

**Name:**

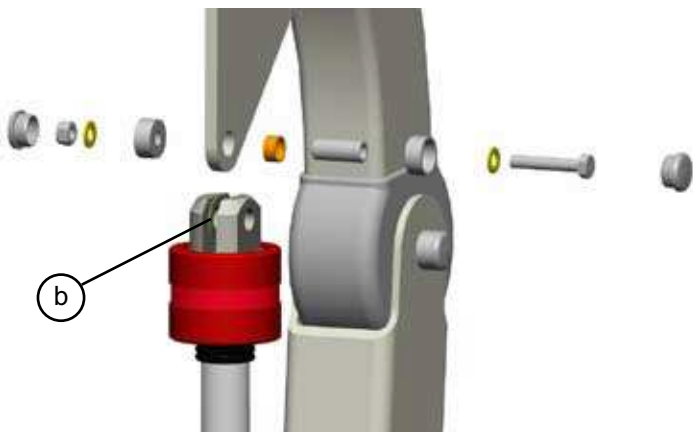
**Address:**

**(Zip Code)**

#### Tools required



- Remove hardware covers.
- Remove and lubricate in lift arm bolt (a)
- Visually inspect lift arm, plastic shells for wear, cracks or deformation. Reassemble in reverse order.
- Raise the arm and then release, so that it falls to the lowest position. If the arm does not fall to the lowest position, the screw is too tight.



- Remove and lubricate actuator hardware. Visually inspect actuator plastic bushings (b) for wear. Replace if worn (Art. No. 900001372, Washer 12,5/20x0,42) Reassemble in reverse order.

## Instructions regarding the check points for LikoLight

### 6a Flexlink / Lift arm joint

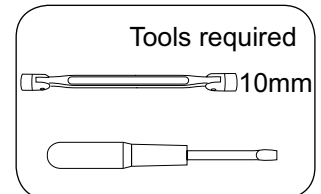
Lift type:	Serial No:	Prod. Year:	Contract No:
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Month	12	24	36	48	60	72	84	96	108	120
Check:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Name:**

**Address:**

**(Zip Code)**



- Remove covers.
- Remove and lubricate pivot point.  
Inspect shell covers for cracks or gaps.



- Lift up the slingbar and then release, so that it falls to the lowest position. If the link does not fall to the lowest position, the screw is too tight.

## Instructions regarding the check points for LikoLight

### 6b Flexlink wear

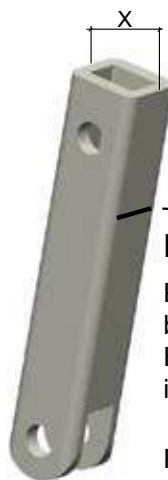
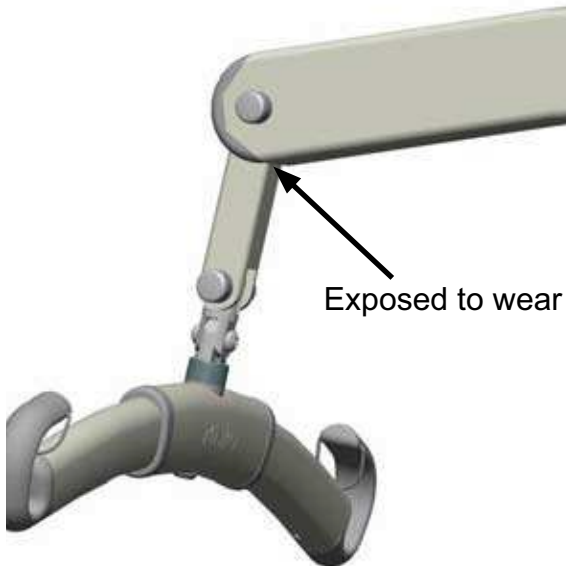
Lift type:	Serial No:	Prod. Year:	Contract No:
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Month    12   24   36   48   60   72   84   96   108   120  
 Check:   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐

**Name:**

**Address:**

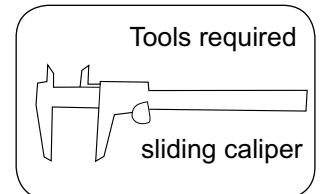
**(Zip Code)**



**Max wear:  $M = X - 3\text{mm}$**

Pull out the Flexlink and check for wear by measuring with the sliding caliper. Replace link (Prod. No. 901979004) if its worn more than 3mm (0,12 inch)

Re-assemble in reverse order.



### 7 Slingbar

Lift type:	Serial No:	Prod. Year:	Contract No:
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Month    12   24   36   48   60   72   84   96   108   120  
 Check:   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐   ☐

**Name:**

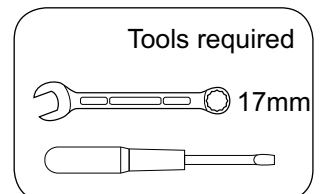
**Address:**

**(Zip Code)**

**Slingbar bolt:** Inspect slingbar bolt and Flexlink



- Remove and lubricate pivot point to slingbar mounting hardware.
- Check slingbar bolt for wear.



- Make sure the lower slingbolt has a mark, as the picture shows. If not, the slingbar must be replaced.



- Reassemble in reverse order pivot slingbar centerbolt within the Flexlink. If the slingbar is binding, the screw is too tight.

# Instructions regarding the check points for LikoLight

## 8 Battery test

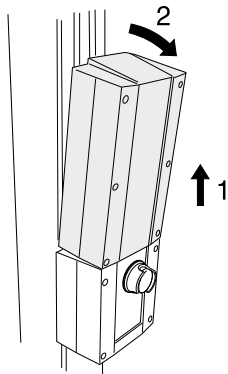
Lift type:	Serial No:	Prod. Year:	Contract No:
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Month	12	24	36	48	60	72	84	96	108	120
Check:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Replace:			<input type="checkbox"/>			<input type="checkbox"/>			<input type="checkbox"/>	

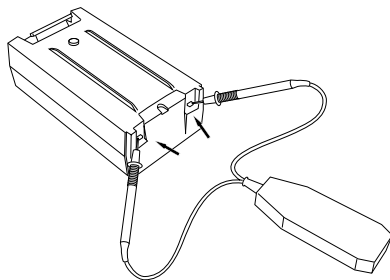
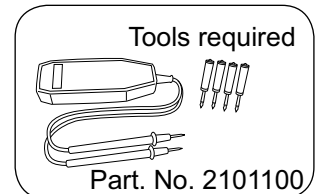
Name:

Address:

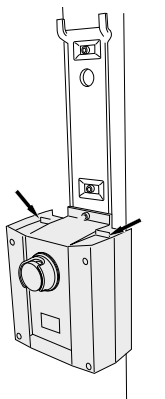
(Zip Code)



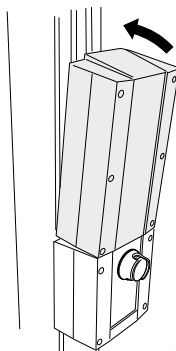
- Remove the charger cable holder and the battery.



- Inspect V-shaped metal contacts on the battery pack casing for uniformity. Check the battery with the battery tester (Part. No. 2101100). A signal should be audible for more than 5 sec. If not, replace battery with Spare Part No. 2006106



- Inspect V-shaped metal contacts on controlbox for uniformity.
- Verify that plastic housing for metal contacts is not damaged or deformed. Tighten screws.



- Place the removable battery pack into position on top of the controlbox. Adjust until you hear a clicking sound.

Old batteries are to be left to personnel authorised by Liko, or at the nearest station for environmental recycling.

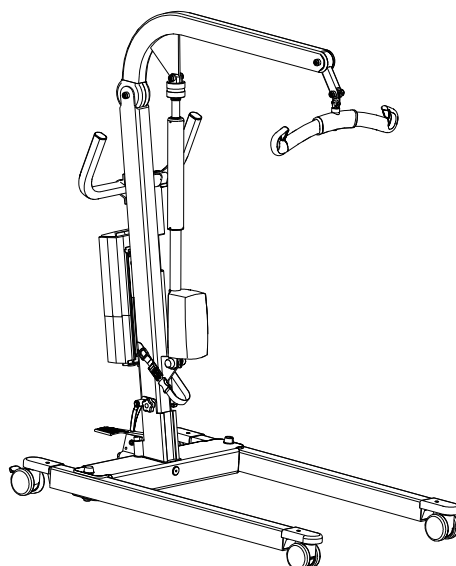


**Recommended replacement every 3rd year!**

## Product changes

Prod. No. 2030001

2009-06-05



Product changes	S/N	Project
<b>2009</b>		
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
<b>2007</b>		
LikoLight produces with Safety latch of steel (901335192)	2504426	619
<b>2006</b>		
Loctite at the leg opening and closing linkage	-	492
LikoLight Travelbag introduces	-	489
New composite hook and safety latch. The safety latch has been redesigned. The new design is sprung.	-	467
Sealing, emergency lowering. The seal colour is registered as a sparepart.	2504157	408
Arm and handles. The mast is redesigned. The attachment 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