

# SlingGuard 450™



## Slingbar

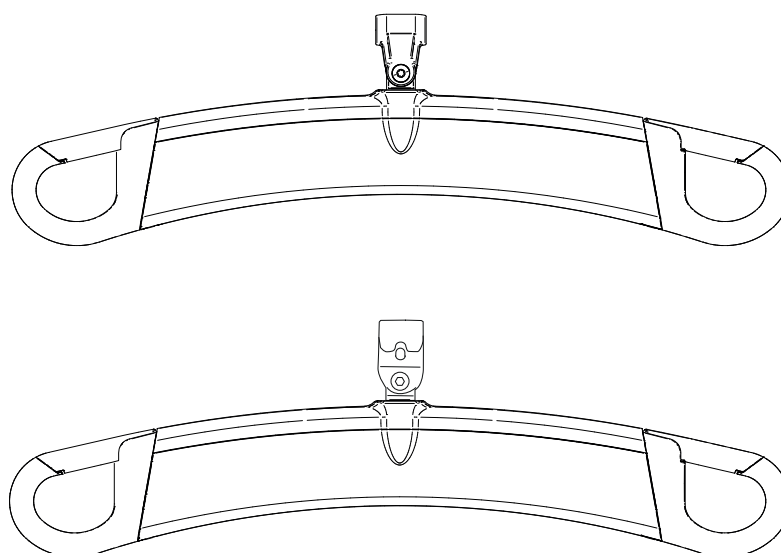
### User Manual

SlingGuard 450™

Art. No. 3308020

SlingGuard 450™ with Quick- Hook Multi

Art. No. 3308520



Symbol description

Symbols	Meaning
<b>WARNING!</b>	Failure to follow the instructions may lead to serious injury to the patient or caregiver.
<b>Important!</b>	Failure to follow the instructions may lead to damage to the product.
<b>CE</b>	This product complies with EC directives.

Product Description

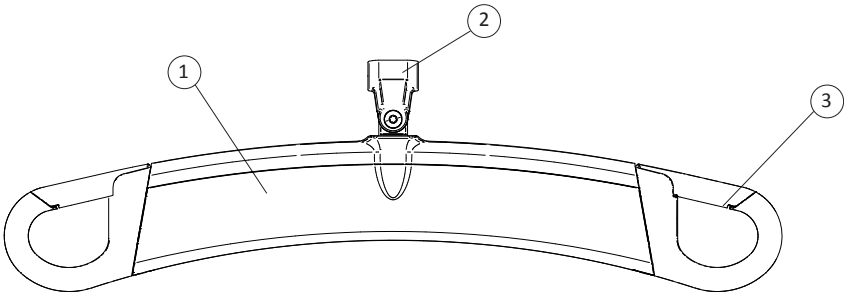
SlingGuard 450™ Slingbar is available in two versions of attachment to the lift: one model with fixed attachment and one model with quick attachment device. SlingGuard 450™ has latches to protect against involuntary unhooking of the slings loops.

**CE** Liko products: SlingGuard 450™ Slingbar comply with the requirements in EN ISO 10535.

Maximum load: 363 kg (800 lbs.)

Manufacturer

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- 1. SlingGuard 450™ Slingbar
- 2. Fixing point for assembly to lift
- 3. Latches

Safety information

A Liko™ lift system is a combination of products. Each product has its own maximum load marking. The lowest specified maximum load of the products that comprises the system sets the maximum load for the complete lift system. The lift system can contain following products; lift rails, a lift motor, a slingbar, a sling or other recommended accessories. Identify the maximum load for the complete lift system by reading the maximum load marking on each product in the system. Contact your Hill-Rom representative for support and advice.

**WARNING!**

The total maximum load for a lift system is always determined by the product in the system with the lowest specified maximum load.

**WARNING!**

Read and understand the user manual in its entirety before using the product. Use of the product without a full understanding of the contents is subject to risk.

Intended use

SlingGuard 450™ is used as an aid in carrying out lifts but does not come into contact with the patient, therefore we do not go into different patient conditions in the user manual. Surrounding (functional) environment: Temp. +5 °C to +40 °C, relative humidity 15% to 93% non-condensed. Barometric pressure range of 70 kPa to 106 kPa. In the event of any queries regarding this product, contact your Hill-Rom representative. For guidance and support in choosing the correct sling, visit [www.liko.com](http://www.liko.com) or contact your Hill-Rom representative. Note! Always read the user manual that comes with Liko’s different sling models for correct and safe use of the sling.

**WARNING!**

Read the user manual for both the patient lift and lifting accessories before use. Lifting and transferring a person always involves a certain level of risk. It is important to completely understand the contents of the user manuals. The equipment should only be used by trained personnel. Contact your Hill-Rom representative in the event of any uncertainties or questions.

**WARNING!** Under no circumstances may the slingbar be modified. In the event of questions, please contact Hill-Rom.

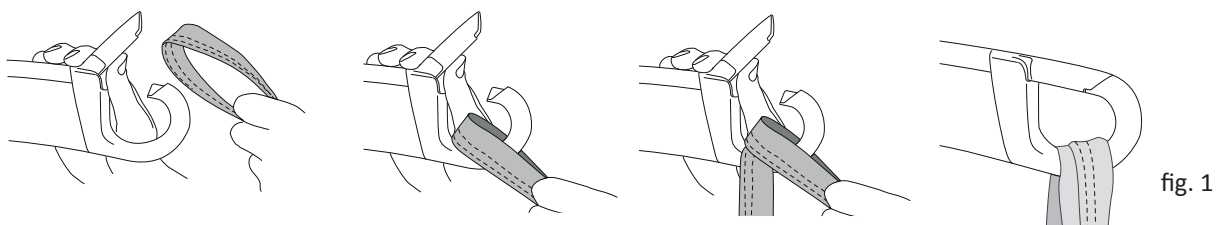
#### Attaching a sling to the SlingGuard 450™ Slingbar

- In order to attach the sling correctly to the patient and the slingbar always study the user manual for the sling to be used in that instance.
- Lift up the latches, first attach the upper strap loops and then the leg support loops, see fig. 1.
- The sling is correctly attached when the slingbar hangs in level, see fig. 2.
- If the slingbar is not level, see fig. 3, read the user manual for the sling in use.

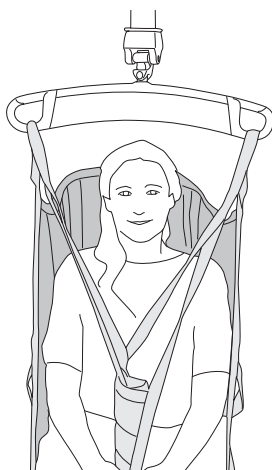
**WARNING!** The sling strap loops should be attached to the slingbar hooks so that the slingbar latches safely prevent involuntary unhooking of the strap loops.

**WARNING!** Before lifting always ensure that the sling's strap loops are correctly connected to the slingbar hooks when the sling straps are stretched, but before the patient is lifted from the underlying surface.

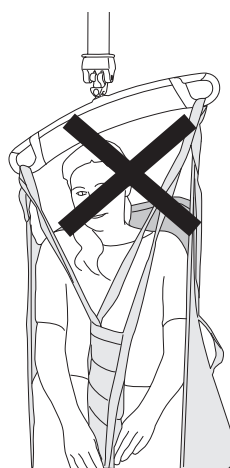
**WARNING!** Attach lifting accessories correctly so that the slingbar hangs level and all slingbar hooks take all the weight when lifting!



**RIGHT!**



**WRONG!**



## Assembly

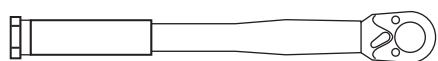
**Fixed assembly to lift:** SlingGuard 450™ Slingbar

**Fits:** LikoGuard™ Overhead Lift (L) Prod. No. 3301030

LikoGuard™ Overhead Lift (XL) Prod. No. 3301040

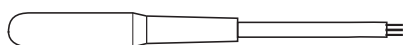
**Shall be assembled by personnel authorized by Hill-Rom!**

Tools required:



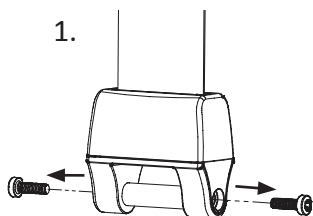
Torx T25 X 1

Torque Wrench: 0 - 10 Nm (88 in.lbf)

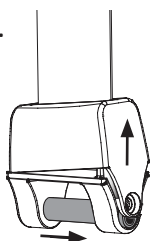


Torx T25 X 2

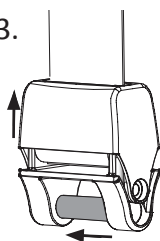
1.



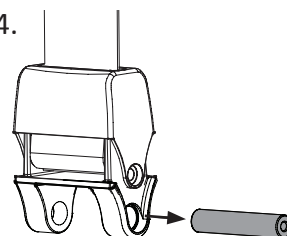
2.



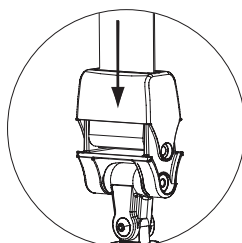
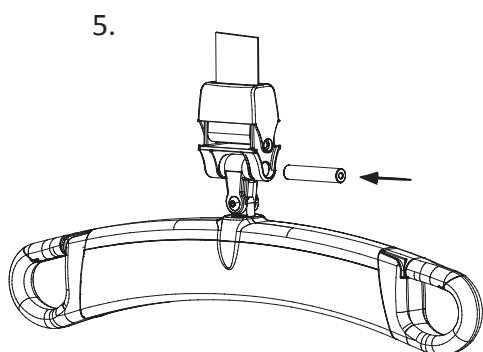
3.



4.

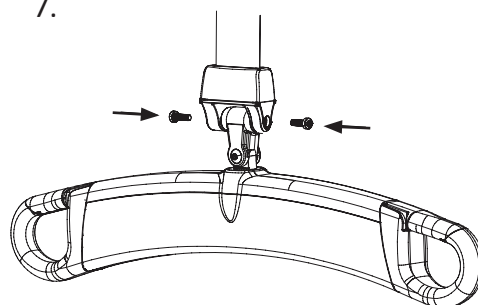


5.



6.

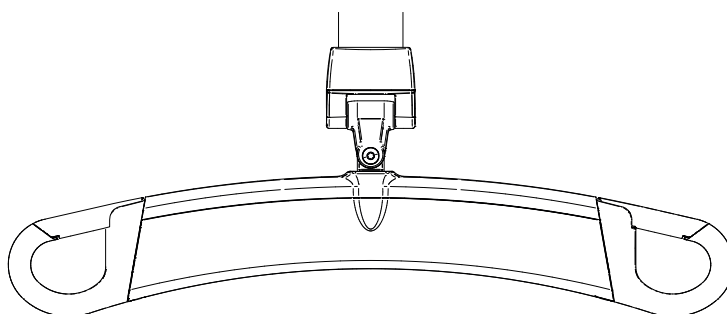
7.



Torque:  $1,25 \pm 0,25$  Nm ( $11 \pm 2.2$  in.lbf)

**WARNING!**

Safety critical assembly!



**Assembly with quick attachment device:** SlingGuard 450™ Slingbar with Quick-Hook Multi.

**Fits:**LikoGuard™ Overhead Lift (L) Prod. No. 3301030  
LikoGuard™ Overhead Lift (XL) Prod. No. 3301040

**WARNING!** Always check that the quick attachment device is correctly attached to the lift strap attachment.

Pull out the Quick-Hook Multi lock button (green button), see fig. 4a and attach the Quick-Hook Multi to Multi-link at the lift strap, release the button. The Quick-Hook Multi now locks in to the lift strap Multi-Link, see fig. 4b.

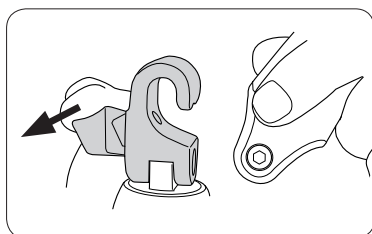


fig. 4a

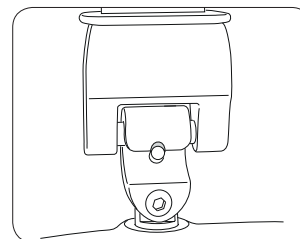
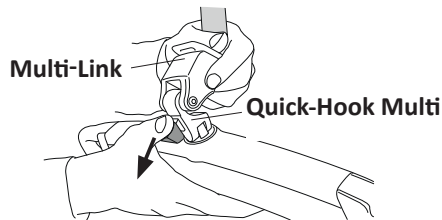
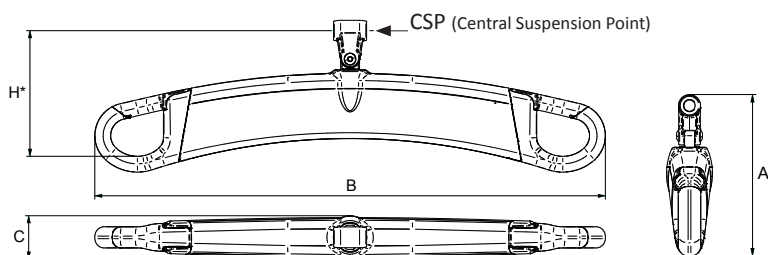


fig. 4b

## Dimensions



Weight SlingGuard 450™: Approx.1,8 kg / 4 lbs.

### Measurements in mm.

A	B	C Art. No. 3308020	C Art. No. 3308520	H*
160	540	46	54	133

### Measurements in Inch.

A	B	C Art. No. 3308020	C Art. No. 3308520	H*
6.3	21.3	1.8	2.1	5.2

\* Installation dimensions: the distance between the slingbar's hook attachment point (for sling etc.) to the slingbar's central suspension point (CSP) to lift.

## Cleaning and disinfecting

### WARNING!

Cleaning and disinfection must always be carried out in accordance with the recommended instructions.

All parts must always be kept clean in order to avoid the risk of infection. Necessary precautions must be taken to eliminate all visible stains and dirt. The cleaning and disinfection methods described are specifically aimed at the lift and all accessories. It has been designed to save time and contribute to effectively fighting healthcare related infections.

### 1 Equipment

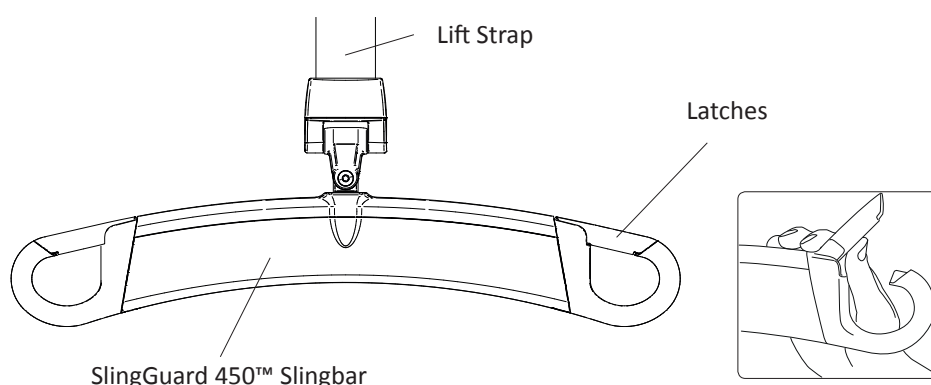
- Safety equipment (such as rubber gloves, protective glasses, aprons, face masks/protective masks and overshoes) according to guidelines and routines in your organization and the manufacturer's instructions.
- Clean buckets
- Cloths
- Soft brushes
- Warm water
- See " Use of cleaning and disinfection agents on LikoGuard™" page 7 for choice of suitable cleaning and disinfection agents.

### 2 Cleaning instructions

Cleaning of the lift and accessories should take place regularly based on use or the organizations requirements.

1. If the slingbar includes the quick-release hook, remove the Slingbar by disconnecting the quick-release attachments as shown in figure 4a&4b, page 5.
2. Clean the slingbar with a cloth moistened with warm water and a neutral cleaning agent approved by your organization. A soft brush may be used to remove stains and resistant dirt.
3. Wipe off the entire lift starting from the top and working down. The cloth should not be so damp that it drips.

**IMPORTANT!** The lift strap or the Emergency stop cord shall not be exposed to following agents: CSI, Oxivir Tb, Dispatch, Chlor-Clean, Dismozon Pur or the equivalent.



### 3 Disinfection Instructions

Disinfection of the lift and lifting accessories should be carried out with risk of contagion or at regular intervals if required. Use a suitable disinfectant see " Use of cleaning and disinfecting agents on LikoGuard™" on page 7 and repeat cleaning instructions.

Follow the manufacturer's instructions for correct use of disinfectants.

After disinfection wipe off the lift with a cloth moistened with clean water to remove traces of disinfectant.

# Use of cleaning and disinfecting agents on LikoGuard™

Chemical class	Active ingredients	pH	Cleaning agents / Disinfectant *)	Manufacturer *)	May not be used on the following items:
Quaternary ammonium chloride	Didecyl dimethyl ammonium chloride = 8.704% Alkyl dimethyl benzyl ammonium chloride = 8.19%	9.0 – 10.0 when using	Virex II (256) (or equivalent)	Johnson/Diversey	
Quaternary ammonium chloride	Alkyl dimethyl benzyl ammonium chloride = 13.238% Alkyl dimethyl ethylbenzyl ammonium chloride = 13.238%	9.5 when using	HB Quat 25L (or equivalent)	3M	
Accelerated hydrogen peroxide	Hydrogen Peroxide 0.1-1.5% Benzyl Alcohol: 1-5% Hydrogen Peroxide 0.1-1.5% Benzyl Alcohol: 1-5%	3	Oxivir Tb (or equivalent)	Johnson/Diversey	Lift strap, (LikoGuard™) Emergency stop cord (LikoGuard™)
Phenolic	Ortho-Phenylphenol = 3.40% Ortho-Benzyl-para-Chlorophenol = 3.03	3.1 +/- 0.4 when using	Wexcid (or equivalent)	Wexford Labs	
Bleach	Sodium hypochlorite	12.2	Dispatch (or equivalent)	Caltech	Lift strap, (LikoGuard™) Emergency stop cord (LikoGuard™)
Alcohol	Isopropyl alcohol = 70%	5.0 – 7.0	Viraguard (or equivalent)	Veridien	
Quaternary ammonium	n-Alkyl dimethyl benzyl ammonium chlorides = 0.105% n-Alkyl dimethyl ethylbenzyl ammonium chlorides = 0.105%	11.5 - 12.5	CSI (or equivalent)	Central Solutions Inc.	Lift strap, (LikoGuard™) Emergency stop cord (LikoGuard™)
Benzyl-C12-18-alkyldimethylammonium, chlorides	Benzyl-C12-18-alkyldimethylammonium, chlorides (22%) 2-Phenoxyethanol (20%) Tridecylpolyethyleneglycolether (15%) Propan-2-ol (8%)	approx. 8.6 when using	Terralin Protect (or equivalent)	Shülke	
Organic peroxide (type E, solid)	Magnesium monoperoxyphthalate hexahydrate (50-100%) Anionic surfactant (5-10%) Nonionic surfactant (1-5%)	5.3 when using	Dismozon Pur (or equivalent)	Bode	Lift strap, (LikoGuard™) Emergency stop cord (LikoGuard™)
Ethanol	Hydrogen peroxide (2.5-10%) Lauryldimethylamine oxide (0-2.5%) Ethanol (2.5-10%)	7	Anioxy-Spray WS (or equivalent)	Anios	
Troclosene sodium	Adipic acid 10-30% Amorphous silica < 1% Sodium Toluene sulphphonate 5-10% Troclosene sodium 10-30%	4-6 when using	Chlor-Clean (or equivalent)	Guest Medical Ltd	Lift strap, (LikoGuard™) Emergency stop cord (LikoGuard™)

\*) or equivalent

## Inspection and maintenance

To ensure smooth operation and use, some details should be checked daily, before the slingbar is used:

- Check that the screws and locking nuts at the slingbar and the lift strap fixings are tight
- Check that the latches are functional and intact, missing or damaged latches must always be replaced with new ones.
- When using the Quick-release system, check that the Quick-release Hook is correctly attached to the lift and sling bar.
- Before lifting, check that the lifting accessory hangs vertically and can move freely.

Clean the SlingGuard 450™ Slingbar with a moist cloth, using warm water, as necessary.

For detailed information about cleaning and disinfection of your Hill-Rom product we refer you to the section Cleaning and disinfecting on pages 6-7.

**Important! SlingGuard 450™ Slingbar should not be exposed to running water.**

### Service

A periodic inspection of SlingGuard 450™ Slingbar and SlingGuard 450™ Slingbar with Quick-release Hook should be carried out at least once a year.

#### WARNING!

Periodic inspection, repair and maintenance should be performed only in accordance with the Liko Service Manual and by personnel trained by Hill-Rom and using original Liko spare parts.

### Expected life time

The product has an expected life time of 10 years when correctly handled, serviced and periodically inspected in accordance with Liko product instructions.

#### WARNING!

The product should be used in accordance with the recommendations for Expected Life Time.

### Recycling

For instructions about how to recycle SlingGuard 450™ Slingbar please visit our website: [www.liko.com](http://www.liko.com)

### Product changes

Liko products undergo continuous development, which is why we reserve the right to make product changes without prior notice. Contact your Hill-Rom representative for advice and information about product upgrades.

### Design and Quality by Liko in Sweden

Hill-Rom's environmental and quality management systems are certified according to ISO 9001 and the equivalent for medical technical companies, ISO 13485. Hill-Rom's environmental and quality management systems are also environmentally certified according to ISO 14001.