# **OPTIMA MINOR**



Type: Use and maintenance instructions

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Dear Merivaara product owner, The safe and fault-free use and maintenance of the equipment requires careful adherence to these instructions. When mounting accessories to the equipment, the instructions provided with them must be followed closely. Always keep the instructions for accessories together with this manual.

Warnings and observations found in this instruction manual are indicated as follows:

WARNING! Please observe to ensure patient safety.

NOTE! Please observe in order to avoid causing damage to the equipment or its parts.



Lubricate during maintenance and when replacing parts.

# **Expertise is essential**

The patient is the most important part of treatment. This is precisely why the equipment used in treatment must be absolutely safe and convenient to use. As a health care professional, you deserve the very best tools, allowing you to concentrate on your own field of expertise. Merivaara is an expert in providing hospital equipment.

Merivaara products have been designed to function

efficiently and flexibly during the various stages of treatment. They assist you in the performance of your work, without distracting you from the task at hand.

Our integrated equipment system includes stateof-the-art equipment for hospital procedures and hospital room environments as well as for nursing homes and

home care applications.



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# 1. TECHNICAL SPECIFICATIONS



#### 1.1 Intended use

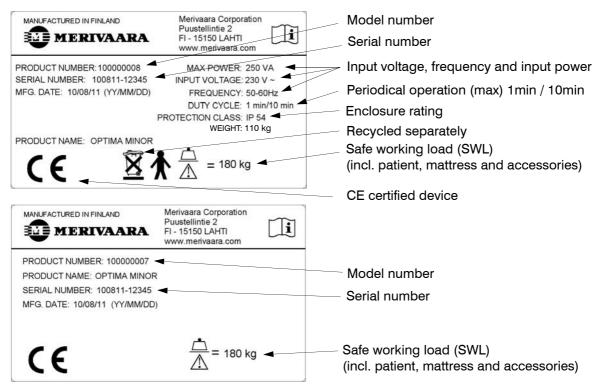
Merivaara's delivery bed Optima Minor is intended for use in hospital maternity wards.

The Optima Minor delivery bed meets IEC 601-2-38, IEC 601-1-2 (EMC) and SFS-EN 60601-1 standards.

The bed complies with directive 93/42/EEC (MDD) product class I, and bears a CE marking based on this classification.

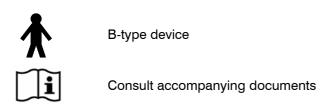
## 1.2 Type plate

The type plate is located underneath the back section.



Type plates, upper electrically-operated and lower hydraulic gas spring-operated bed

#### 1.2.1 Figure symbols



# 1.3 Properties and materials

## 1.3.1 Operating conditions

Ambient temperature  $+10 \dots +40 \,^{\circ}\text{C}$ Ambient pressure  $700 - 1060 \, \text{mbar}$ 

Relative humidity 30 %- 75 % Transport temperature  $-10 \dots +40 \,^{\circ}\text{C}$  Storage temperature  $+10 \dots +40 \,^{\circ}\text{C}$ 

Safe working load (SWL)

(incl. patient, mattress and accessories) 180 kg

## 1.3.2 Classifications data

Electric shock protection Class I equipment (insulated)

Degree of shock protection B-type device

Fluid protection water-resistant device (IP54)

Cleaning and disinfecting see section 3. page 13

Combustible anaesthetic gas protection do not use with combustible gases

Function type periodical operation

Input voltage 230 V/50 Hz
Input power max. 250 VA

Output voltage 24 V ---

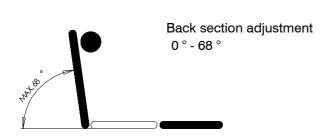
Noise level  $43\pm 2 \text{ dB}$ 

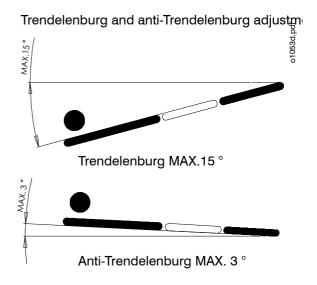
Weight 110 kg

# 1.3.3 Surface materials

Surface materials	34100 H	34100 SCK
Paint (glossy epoxy), frame parts	Х	X
Chroming (pedal bars, adjuster levers)	Х	Х
Stainless steel (slide rail, basin)	Х	Х
ABS (casings)	Х	Х
PE (plugs)	Х	Х
POM (collision wheels)	Х	Х
TPO (Thermoplastic olefin), push bar profile	Х	Х
PU elastomer (push bar)	Х	Х
PUR (polyurethane) hand-held control cable		Х
PA 6 (polyamide), handles, motors	Х	Х
PA 9 (polyamide), control unit		Х
Lyranyl (PPE/HIPS) hand-held control		Х
Hygienic mattress (grey) cover 63% polyamide/37% PU	Х	Х

# 1.3.4 Adjustment ranges



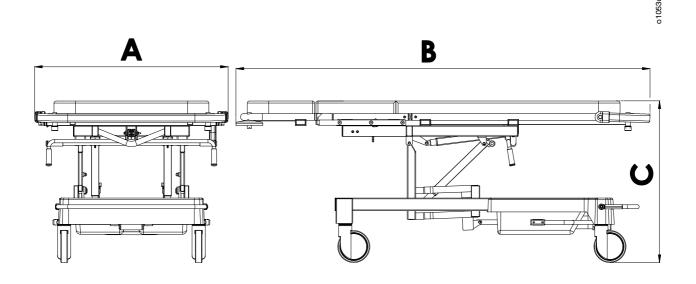


# 1.3.5 Dimensions

	Optima Minor 34100 H	Optima Minor 34100 CSK
Mattress base	3-section	3-section
Bed weight	110 kg	110 kg
Length (A)	1940 mm	1940 mm
Width (B)	910 mm	910 mm
Height (C)	650 - 1010 mm	650 - 1010 mm
Castors	125 mm	125 mm

Table 1. Dimensions

.



# 2. PRODUCT USE



# 2.1 Implementation

The bed is packaged pre-assembled. Check for damage that may have been caused during transport. All packaging cardboard should be recycled. Wood and plastics are energy waste.

**NOTE!** If the bed has been stored in the cold, allow it to warm up to room temperature before connecting power or using.

#### 2.1.1 Special instructions

**WARNING!** On electrically-operated beds, ensure that the power cord does not get caught between moving parts as they may damage or cut the cord when operated. A damaged power cord can result in electrical shock!

The bed's safe working load is 180 kg. Only one personmay be on the bed when adjusting.

**NOTE!** Do not operate the motors for more than one minute at a time (max. 1 min). Continuous repetition of movements may overload and damage the motor.

Before moving the bed, the mattress base must be adjusted to its middle position (check visually).

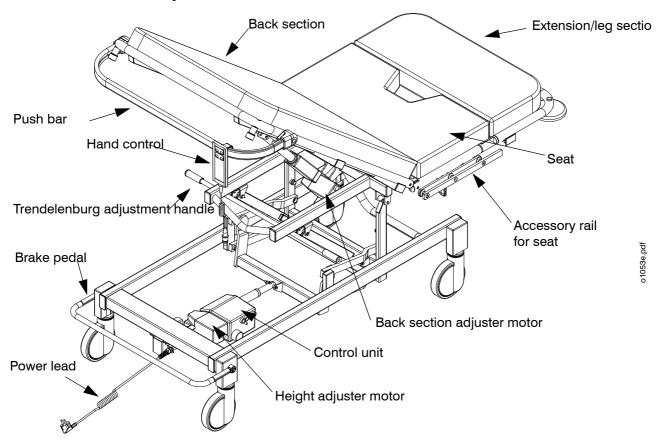
When pushing the bed over a threshold or similar obstacle, always go with the head or foot of the bed first to reduce the impact on castors or other mechanical parts.

Keep the mattress base of unattended beds in the lower position. (IEC 60601-2-38)

**WARNING!** When adjusting the bed, ensure that the patient's fingers, hands or other parts of the body do not get caught between the bed and accessories or the bed's moving parts.

The bed can also be used with mobile personnel lifts.

# 2.2 Structure and adjustments



Optima Minor – With electric adjustment (without utility basket)

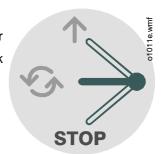
#### 2.2.1 Brakes and castors

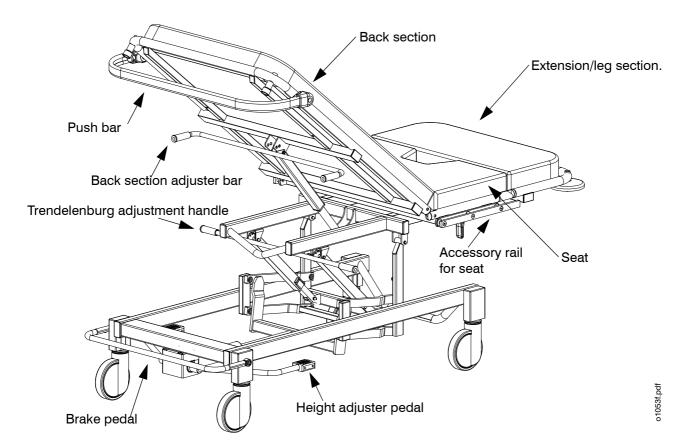
#### 2.2.1.1 Castors with individual brakes

The bed is locked by depressing the brake lever on all four castors. The castor brake is released by lightly pressing the release lever until the brake lever returns to its horizontal position.

## 2.2.1.2 Castors with central brake system

All castors can be locked and released with a pedal, which is mounted on the lower frame at the head end of the bed. When the pedal is up, the tracking castor will lock in its tracking position. When the pedal is in its middle position, all the castors will turn; when the pedal is down, all castors are locked.



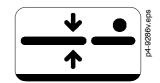


Optima Minor – With hydraulic or gas spring-assisted adjustment (without utility basket)

# 2.2.2 .Hydraulic/gas spring-assisted adjustments

## 2.2.2.1 Height adjustment, hydraulic

Mattress base height is adjusted hydraulically using the foot pedal. The mattress base is raised by depressing the hydraulic pedal. The mattress base is lowered when the pedal is raised.



Adjustment range 360 mm.

#### 2.2.2.2 Back section adjustment, gas spring

Gas-assisted adjustments are made using the handle on the side of the back section. Turn the handle with one hand while holding the back section frame with the other and move the back section into the desired position. Release the adjuster handle when done.



Adjustment range 0 -68°.

#### 2.2.3 Electrical adjustments

## 2.2.3.1 Hand control functions on electrically-operated bed

Adjustments are electrically operated by pressing the buttons on the hand control. Press the button for the desired function and hold until the table reaches the desired position or its maximum extension. If desired, both functions can be used simultaneously. If the function shuts down, the overload protection has been activated. If this occurs, release all buttons and set one function at a time.

Height adjustment

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NOTE!

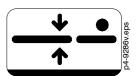
Ensure that the hand control cord on electrically-operated tables does not get caught between the table's moving parts, as this may damage or cut the cord. A damaged or cut cord is not life threatening, because the hand control operates on a 24V safety voltage.

NOTE!

Motors on electrically-operated examination tables are not to be used continuously for more than 1 minute.

# 2.2.3.2 Height adjustment

The mattress base is raised and lowered using the hand control buttons. The adjustment range is 360 mm.



## 2.2.3.3 Back section adjustment

The back section angle is adjusted using the adjustment buttons on the hand control. The adjustment range is 0-68  $^{\circ}$ .



# 3. CLEANING



# 3.1 Bed, operating table and trolley

**NOTE!** Always disconnect the equipment from the mains when beginning cleaning procedures.

#### 3.1.1 Cleaning

- Remove all accessories and mattresses.
- Clean by wiping down with a mild alkaline detergent (pH 7-8).

#### 3.1.2 Disinfecting:

- Remove all accessories and mattresses.
- Disinfect only when necessary.
- Wipe down the equipment with the surface disinfectant used at the facility in accordance with manufacturer instructions, unless the surface disinfectant contains phenols and alcohol, which can corrode plastic parts and mattresses.

**NOTE!** Dry the operating table <u>carefully</u> immediately after cleaning or disinfecting.

#### 3.1.3 Mattresses and pads

NOTE! Read the care instructions for mattresses and pads first. The instructions can be found by, for example, opening the zipper at the end of the mattress.

If the instructions are not listed there, refer to Section 1.

# 4. MAINTENANCE AND REPAIR



## 4.1 Preventative maintenance

Mark the date when the bed is taken into use next to the type plate located on the back section of the bed. The date will provide a reference for annual servicing. Remember to mark the bed with the date when performing the annual servicing, so that the following service date will not require a separate reminder.

- When cleaning the bed, perform a general visual inspection, checking for any hydraulic leaks, loose screws or parts, cracks, surface damage or missing parts.
- **Perform a monthly** inspection of the bed by fully extending and retracting all its adjustments. Make the necessary repairs and adjustments.
- The following items should be serviced on an **annual** basis:
  - · check the hydraulic pump of the Trendelenburg adjuster
  - ensure that the castors and brakes turn and lock smoothly and precisely
  - · check and lubricate joints
- Also, on hydraulic/gas spring-assisted beds:
  - · check condition of gas springs
  - · check height adjuster hydraulic pump
- On electrically-operated examination tables:
  - Inspect the condition of motors, hand control, control unit and all connections.
  - · check all cords for fraying.

Necessary repairs must be made immediately upon detection of a fault.

Repairs to the electrical operating system and other procedures are only to be carried out by an authorised service representative.

**NOTE!** The type plate information must be readily available when contacting the Service Department.

# 4.2 Troubleshooting

Malfunction	Cause	Repair
Mattress base will not rise.	Oil level low	B
	Air in the hydraulic system	Bleed pump.
Mattress base does not lower	Air in the hydraulic system	Bleed pump.
properly.		
Mattress base not maintaining	Faulty valve	Replace pump.
height.	Faulty seal	
	Debris in hydraulic system	
Bed pulls to one side when	Castor sticking	Replace castor.
pushing.	Debris in castor	Clean castor.
Mattress base angle adjustments	Gas spring is damaged	Replace gas spring.
do not remain in place.	Gas spring is installed	Correct faulty installation See
	incorrectly	section 4.5page 18.
Motor does not work.	Motor connection has come	Re-connect to control unit.
	loose	Re-connect to control unit.
	Hand control connection has	Plug back into wall socket.
	come loose	
	Power cord out of socket or	Contact Service.
	control unit	NOTE!Replacements may only be
	Distribution fuse blown	performed by an authorised service
		representative.
	<ul><li>Faulty limit switch</li><li>Fault in motor</li></ul>	Contact Service. Contact Service.
	Control unit current limit	Only one person may be on the
	exceeded due to overloading of	bed when running the motor. The
	motor	maximum allowable weight
	ote.	(patient, mattress and accessories)
		of 180 kg must not be exceeded.
Hand-held control unit does not	Hand control connection has	Re-connect to control unit.
work.	come loose	Contact Service.
	Wire or hand-held control unit	
	damaged	
The function running does not	Motor cords in wrong order	Re-connect to control unit in
correspond to the function button		numerical order.
selected.		See section 4.7page 20

#### 4.3 Castors and brakes

#### 4.3.1 Castors with individual brakes

- Remove casing (1) or utility basket.
- Remove screws (2) and washers (3).
- Remove castor (4).

Reinstall castor in reverse order.

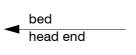
## 4.3.2 Castors with central brake system

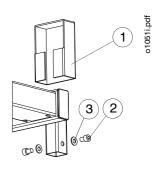
- Put brake pedal (1) into free position (pedal centred).
- Remove screw (2).
- Pull pedal bar (1) out from lever (3).
- Remove end plug (4).
- Loosen retaining screw (5) with a 3 mm Allen key.
- Pull pedal lever (3) and axle (6) out.
- Remove casing (7) or utility basket.
- Remove screws (8) and washers (9).
- Pull castor out from sleeve (10).

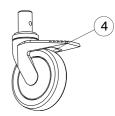
Reinstall castor in reverse order. Ensure that the brake pedal and cam positions are in alignment and that the castor is facing in the right direction.

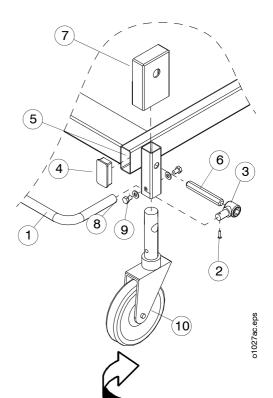
## 4.3.2.1 Brake adjustment

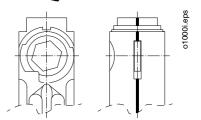
- Put brake pedal (1) into lower position (castors locked).
- Remove screw (2).
- Pull pedal bar (1) out from lever (3).
- Loosen lever retaining screw (11) with a 3 mm Allen key.
- Pull lever (3) out from the axle (6).
- Remove casing (7) or utility basket.
- Remove screws (8) and washers (9).
- Support the bed so that the castor being adjusted is off the floor.
- Braking power is increased by rotating the castor clockwise (viewed from above) one half turn at a time (in the direction of the arrow)











# 4.4 Hydraulic height adjustment

# 4.4.1 Pump removal

- Bring mattress base into its upright position.
- Remove utility basket.
- Remove circlip (1).
- Remove pivot pin (2) and plastic bushings
   (3).
- Loosen nuts (4) and remove screws (5) from both sides.
- Remove limiters (6).
- Lift the pump out from its mounting.

Reinstall pump in reverse order.

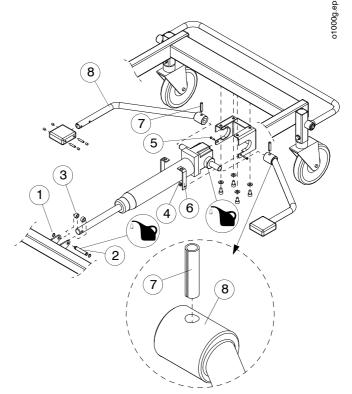
## 4.4.2 Pedal removal

- Remove spring locking pin (7).
- Pull pedal (8) out.
- When reattaching the pedal, insert the pin as shown here.

## 4.4.3 Pump bleeding

The hydraulic pump is equipped with an automatic bleeding mechanism, which facilitates bleeding.

- Pump mattress base into its upright position.
- Give 2-4 extra pumps.
- Lower mattress base to its operating height.



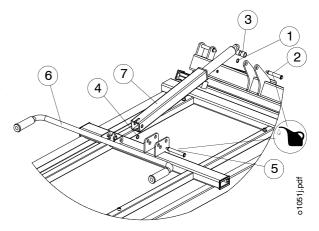
#### 4.5 Gas spring adjusters

#### 4.5.1 Removal of back section gas spring

Adjust back section to its upper position and support with, for example, a night table.

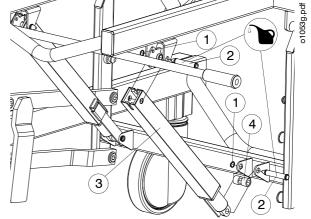
- Remove circlip (1) and tap out joint pin (2) until the bottom end of the gas spring comes free from bracket.
- Remove bushings (3) (2 pcs).
- Remove circlip (4).
- Using a mandrel, carefully tap joint pin (5) out until gas spring (7) and release handle (6) come loose.

The gas spring and release handle are only being supported by the joint pin (5), so support them when removing.



## 4.5.2 Removal of Trendelenburg adjustment gas springs

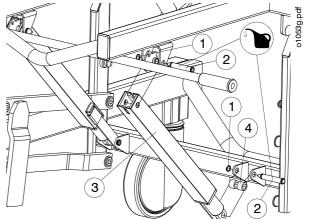
- Adjust the bed into anti-Trendelenburg position and replace one gas spring at a time so the mattress base will not require additional support.
- Remove the circlips (1) from the bevelled end of the pivot pin (2) and remove the pivot pins.
- Remove gas spring (3) and bushings (4).
- Removal of gas springs from protector sleeve as in Section 4.5.3



After replacing the gas springs in the protector sleeve, remount it in reverse order and then replace the other side. We recommend replacing both gas springs at the same time, even if one seems to be perfectly functional.

# Removal of gas spring from protective sleeve

- Remove the gas spring ram (1).
- Pull the gas spring (2) out of the protective tubing (3).
- Unscrew mounting bracket (4). Count the number of turns for reassembly.
- If the gas spring requires adjustment:
  - first screw the mounting piece (4) in place of the old one
  - · adjust making only half or single turns at a time
  - if the gas spring is under load, turn counterclockwise
  - if the gas spring is not released by lifting the handle, turn clockwise



## 4.6 Control unit and motors

# 4.6.1 Removal of control unit and height adjustment motor

- Support the mattress base in its upper position and disconnect the power cord from the mains.
- Remove utility basket.
- Loosen the screw (1) using a TORX wrench (T20).
- Pull the control unit (2) toward the motor arm.
- Remove circlips (3) from both joint pins.
- Remove joint pin (4) and plastic bushing (5).
- Tap out joint pin (6) until motor comes free and plastic bushing (7) can be removed.
- Lift motor (8) out. Reinstall in reverse order.

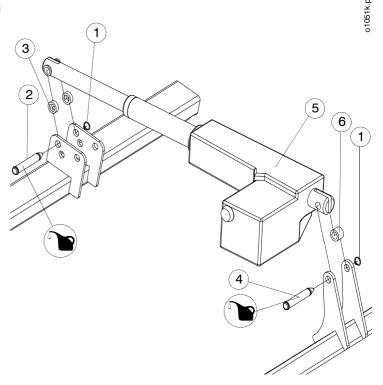
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#### 4.6.2 Removal of back section motor

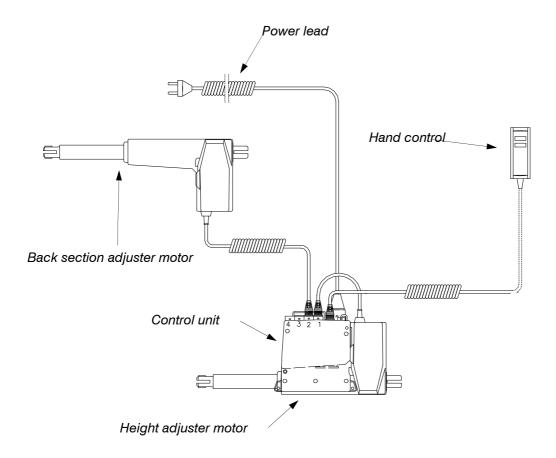
Before removing motor, support back section carefully and disconnect power cord from wall outlet.

- Remove circlips (1).
- Remove pivot pin (2) and plastic bushings (3).
- Using a mandrel, tap out joint pin (4) until bushing (6) and motor (5) come free.

Reinstall in reverse order.



# 4.7 Schematic

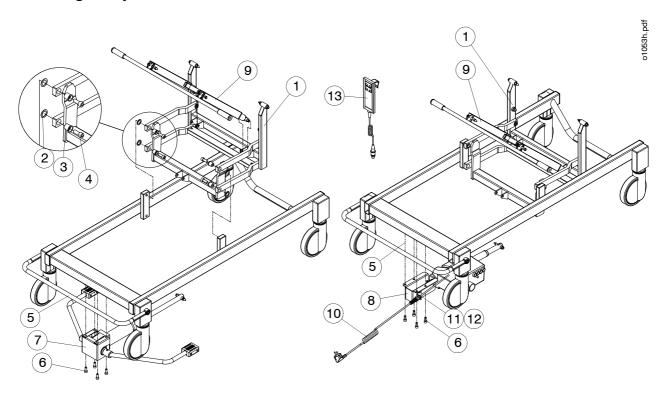


**NOTE!** In order to avoid accidents, remember to always disconnect the power cord from the wall outlet before performing any maintenance procedures!

# 5. SPARE PARTS

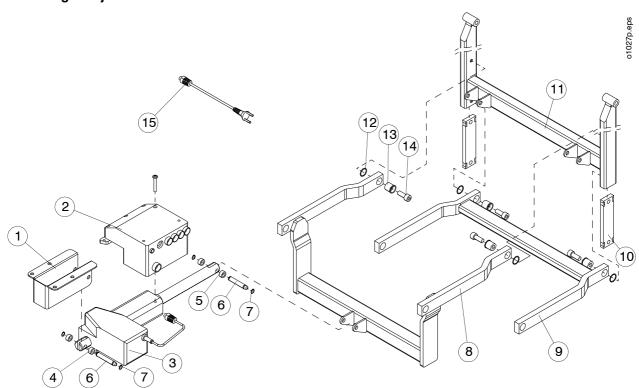


# 5.1 Height-adjustable lower frame and lift levers



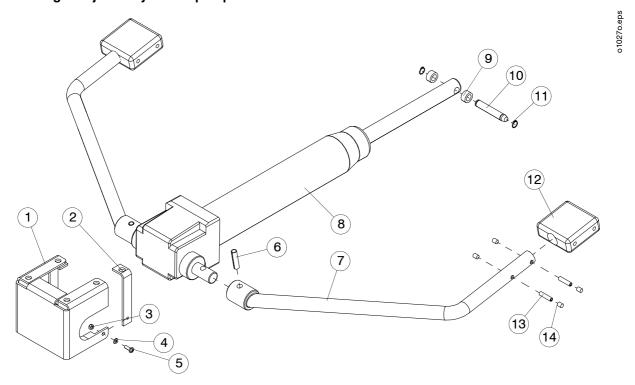
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1		Height adjustment	See section 5.1.1page 22	1
2	709851	Bushing	28/19x1	4
3	A4540000	Bearing retainer		4
4	70645	Hex screw	SFS 2219-M10x25	4
5		Central braking system	See section 5.2page 24	1
6	70772	Screw	SFS 2219-M8x20	4
7		Hydraulic pump	See section 5.1.2page 23	1
8		Height adjuster motor	See section 5.1.1page 22	1
9		Trendelenburg	See section 5.5page 27	1
10	71336085	Spiral cable	LINAK	1
11	A4823800	Mounting bracket		1
12	704411	Screw	SFS 2976 - M4x10	2
13	71335462	Hand control		1

# 5.1.1 Height adjuster and motor



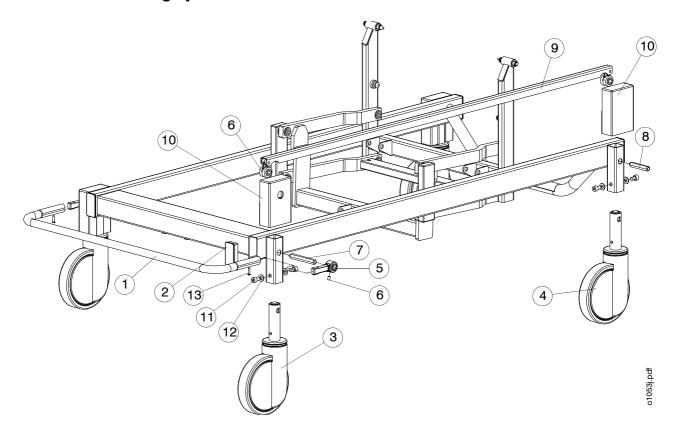
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	A2474400	Mounting case		1
2	71336063	Control unit	CB09-2LO-2T, IP 54, 230 V	1
3	71335454	Height adjuster motor	LA31.40-JBM-200-24-001. IP 54	1
4	709872	Bushing		2
5	709931	Bushing		2
6	A4541500	Joint pin	D10x64	2
7	70794	Retaining ring	DIN 471-10x1	4
8	A2400702	Lift lever	Request colour.	1
9	A3490002	Support lever	Request colour.	1
10	A4539500	Mounting plate		2
11	A2400602	Centre frame	Request colour.	1
12	709851	Washer	28/19x1	4
13	A4540000	Bearing retainer		4
14	70645	Screw	SFS 2219-M10x25	4
15	71336085	Power lead	CB12	1

# 5.1.2 Height adjuster hydraulic pump



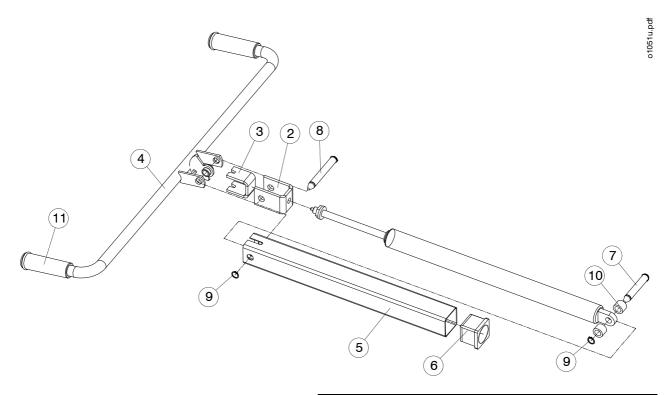
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	A2334500	Mounting case		1
2	A4542100	Limiter		2
3	70741	Locking nut	DIN 985-M5	2
4	70777	Washer	DIN 125-M5	2
5	70452	Screw	DIN 7985 - M5x12	2
6	70814	Spring pin	DIN 481 - M8x32	2
7	A2405200	Pedal bar	Includes parts 12-14	2
8	7115691	Hydraulic pump		1
9	709931	Intermediate bushing		2
10	A4541500	Joint pin	D10x64	1
11	707931	Retaining ring	DIN 471-10x1	2
12	709772	Pedal pad		2
13	70810	Spring pin	DIN 481-6x40	8
14	709773	Pad dummy		8

# 5.2 Central braking system and castors



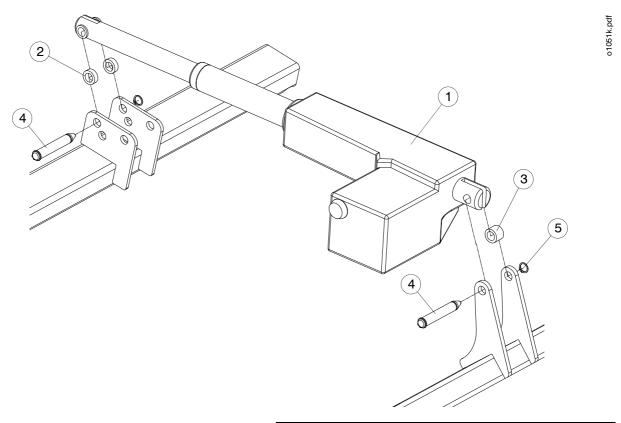
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	A2400100	Pedal bar		1
2	710219	Side rail plug	Light grey colour	4
3	7123232	Braking castor	150mm	3
4	7123233	Tracking castor	150mm	1
5	A4724700	Pedal fixing lever		2
6	70530	Screw	SFS 2759 – 4.2x13	6
7	A4724500	Pedal axle		2
8	A4724600	Axle		2
9	A3450000	Brake connecting rod		2
10	7107069	Cover	When placing an order, please state the number of holes desired.	4
11	70632	Screw	SFS 2219 - m8x12	8
12	707782	Washer	DIN 6796 - M8	8
13	70530	Screw	SFS 2759 - M4.2x13	2

# 5.3 Back section adjustment gas spring



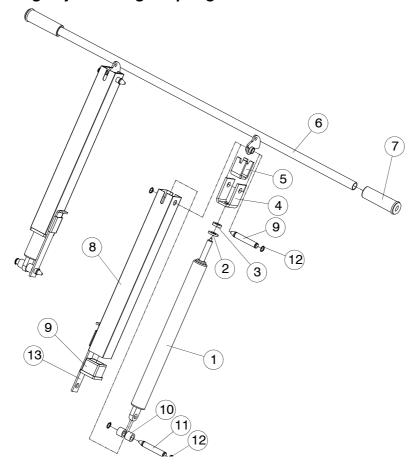
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	712604	Gas spring	180/970N	1
2	A3357400	Gas spring mounting piece		1
3	A33757500	Gas spring ram		1
4	A3727300	Release handle		1
5	A3357300	Gas spring protective tubing		1
6	709781	Bearing retainer		1
7	A4381800	Joint pin	D10x64	1
8	A4487400	Joint pin	D10x67	1
9	70792	Retaining ring	10x1	4
10	709871	Bushing		1
11	7097747	Handle cover		2

# 5.4 Back section adjustment motor



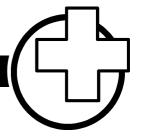
			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	71335455	Motor	LINAK	1
2	709872	Bushing		2
3	709931	Bushing		1
4	A4381800	Joint pin	D10x67	2
5	70792	Retaining ring	10x1	4

# 5.5 Trendelenburg adjustment gas springs



			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	712551	Gas spring	130/400N	2
2				2
3		Nut	M10x1	2
4	A3357400	Gas spring mounting piece		2
5	A3357500	Gas spring ram		2
6	A3730200	Release handle		1
7	7097746	Handle cover		2
8	A4799500	Protector sleeve		2
9	709781	Bearing retainer		2
10	709871	Bushing		8
11	A4541500	Joint pin	D10x64	4
12	70792	Retaining ring	10x1	8
13	A49179A00	Limiter plate		2

# 6. ACCESSORIES



# 6.1 Accessories

# 6.1.1 Operating conditions

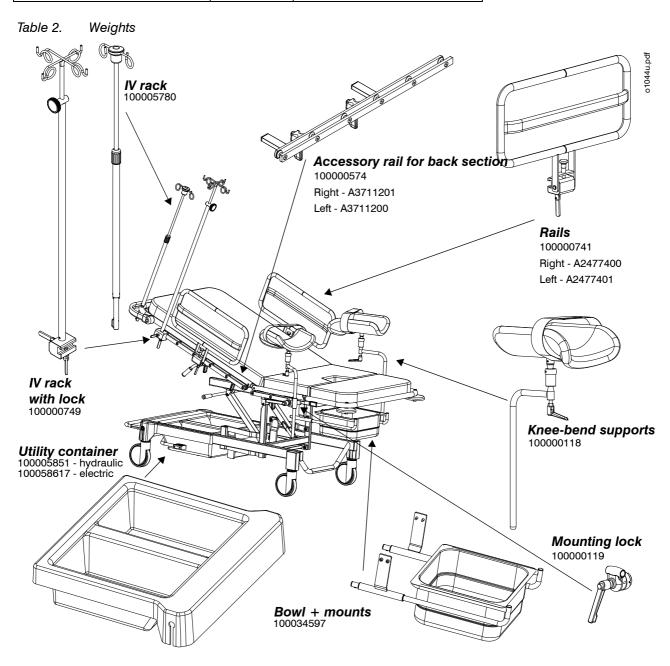
Ambient temperature  $+10 \dots +40 \,^{\circ}\text{C}$ Ambient air pressure  $700\text{--}1060 \,\text{mbar}$ Relative humidity  $30 \,^{\circ}\text{--}75 \,^{\circ}\text{C}$ Transport temperature  $-10 \dots +40 \,^{\circ}\text{C}$ Storage temperature  $+10 \dots +40 \,^{\circ}\text{C}$ 

## 6.1.2 Surface materials

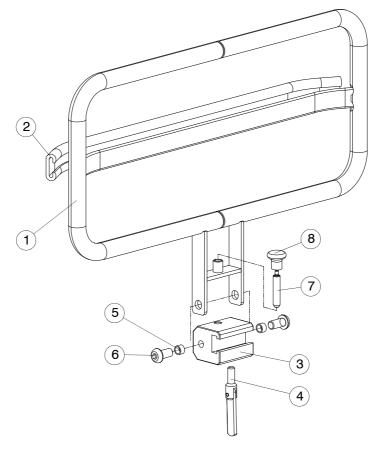
		Painting	Chroming	Stainless steel	РР	Anodised aluminium	POM	PA	Thermoplastic olefin (TPO)
Accessory	Code								
Knee-bend supports	100000118	Х	Χ	Χ					Х
Mounting lock	100000119		Х			Х			
Accessory rail for back section	100000574		Х	Х					Х
Rails	100000741	Х			Х	Х		Х	
IV rack with lock	100000749		Χ			Х			Х
IV rack	100005780		Χ				Χ		
Bowl + mounts	100034597		Х	Х					

# 6.2 Accessory serial numbers and weights

Accessory	Code	Weight kg/pc or kg/pair
Knee-bend supports	100000118	5,5 kg/pair
Mounting lock	100000119	1,2 kg/pair
Accessory rail for back section	100000574	6,4 kg/pair
Rails	100000741	5,6 kg/pair
IV rack with lock	100000749	3,5 kg/pc
IV rack	100005780	2,5 kg/pc
Bowl + mounts	100034597	2,6 kg/pc



# 6.3 Rail

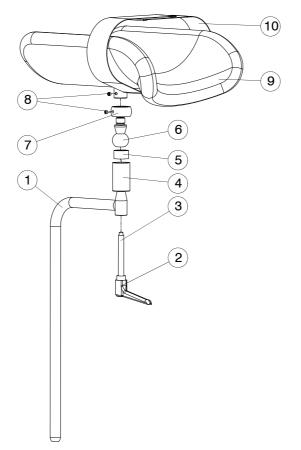


			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	A237730 A2477301	Frame - right Frame - left		1
2	7093242	Profile	L = 23.62in	1
3	A4605000	Accessory rail		1
4	A4516400	Pivot screw		1
5	A4926600	Bearing retainer		2
6	706452	Screw	ISO 7380 - M10x25	2
7	A4926700	Locking pin		1
8	709326	Button		1

30

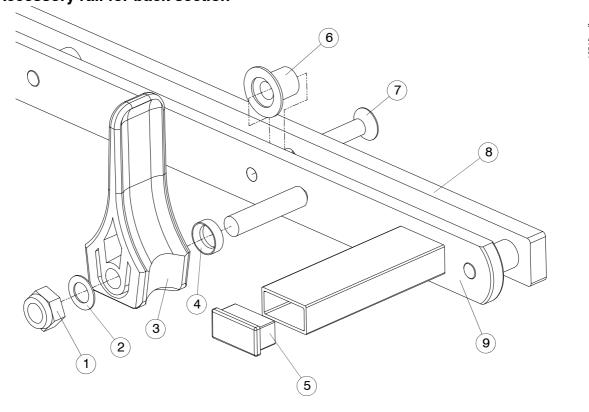
10517, 504

# 6.4 Knee-bend support



			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	A317818B0	Shaft	Includes part 4	1
2	714947	Handle		1
3	A31780006	Screw		1
4		Bushing		1
5	A31780003	Spacer		1
6	A31780011	Top joint		1
7	A31780002	Nut		1
8	70682	Retaining screw	DIN 914-M6x6	2
9	710689	Foot apron	Black	1
10	7118071	Mounting sleeve		1

# 6.5 Accessory rail for back section



			Number of parts in assembly	
Ite m	Code	Part name	Additional information	
1	70744	Locking nut	DIN 985 M10	2
2	71359	Washer	0.75x17x10.2	2
3	709791	Cam		2
4	A46156A00	Cam washer		2
5	710214	Plug		2
6	A4857500	Intermediate bushing		6
7	706641	Screw	DIN 7991 - M8x35	6
8	A3710900	Rail		1
9	A3711101 A3711100	Accessory rail frame Accessory rail frame	Right Left	1

# 7. RECYCLING



## 7.1 Metals and plastics

When disposing of a trolley or replacing any of its parts, check the recyclability of each item. A majority of the metal used on the trolley is steel. The operating table also contains a number of zinc castings and brass bushings. When recycling -plastic parts, determine the material type. When recycling plastic parts, take the material into account. The table on page 6 Page7 lists part materials, which will provide assistance in determining the correct recycling procedure. If a part material is missing from the table, contact your sales representative. For more information on recycling, contact your local waste management facility or visit related sites on the Internet.

Below are recycling symbols, which are marked on parts made of plastic. Products marked with these symbols can be used as energy waste.



202)









**NOTE!** Gel batteries are considered problem waste and must therefore be disposed of at a problem waste facility.

#### 7.1.1 Gas springs

Gas springs can be disposed of as metal waste after all nitrogen gas and oil has been removed from them.

WARNING! Releasing nitrogen gas is <u>strictly</u> prohibited, without following the proper instructions.

Gas spring dismantling instructions are available from your sales representative.

#### 7.1.2 Hydraulics

Hydraulic cylinders can be disposed of as metal waste after all oil has been removed from them.



This symbol is affixed next to the type plate

if the product contains an electric or electronic device.

If so, the product must be recycled separately and cannot be disposed of along with general waste.

# ORDER FORM



Orderer	:			Invoicing address:
Delivery	address:			Mark / Reference:
				Order date: Transport mode:
Pcs	Part	Code	Part name	3
Informa	tion:			
Dealer				

