

Our Vision – Your Comfort and Safety



DIANA Operating Instructions

Comfort – Compact – Sonja



Serial No.



HORCHER GmbH - REHA SYSTEME

Dear Customer,

Thank you for choosing a DIANA hoist.

Please take the time to read this manual carefully and to familiarize yourself with its contents before using the DIANA for the first time. If anything is unclear or if you require further information please contact your authorized supplier *before using it*.

EC-Declaration of Conformity

in compliance with Annex VII of Council Directive 93/42/EU of the 14th June 1993 relating to medical devices

Horcher GmbH of Philipp-Reis-Str. 3, 61130 Nidderau, declare that the

DIANA Hoist

Serial No:

is in compliance with the essential Requirements of the Council Directive 93/42 EU of the 14th of June 1993 Annex 1.

Nidderau, 04/06/1998

Stefan Horcher
Managing Director
Horcher GmbH

This handbook applies to the following DIANA hoists

Sonja	E, EN
Comfort	E
Compact	E, EN
Compact	with electrical patient positioner

Important Safety Instructions

Please pay careful attention to these instructions and follow them at all times.

The DIANA should only be used on hard, even and clean surfaces.

Before using the DIANA carry out a visual check. Do not use it if you notice any kind of defect.

Before lifting and lowering please check that the castors are in the unlocked position.

Before lifting or lowering check the sling for any wear or tear. Never try to repair a sling. Even if no wear is noticed we recommend that the sling is replaced at least every twelve months.

Before using the DIANA please make sure that all hooks or loops are attached and secure and that the sling straps are of the same length.

The DIANA is not designed as a means of transport over long distances for which a wheelchair or similar product should be used.

Do not use strong detergents to clean the DIANA. A damp, clean cloth should suffice.

The DIANA is not designed as a means of transport over long distances for which a wheelchair or similar product should be used.

The swivel option on the DIANA Comfort E must only be used if the hoist has been secured to the floor with a floor plate (optional extra).

Avoid sudden or jerky movements as they might cause an accident.

The wall mounted charger should not be installed in damp areas or close to water supplies.

Only persons authorized by Horcher GmbH should carry out repairs to the DIANA. We strongly recommend that a service is carried out every twelve months.

Ignoring any of the safety instructions or improper use of the DIANA could result in personal injury and will void any warranties and guarantees.

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1) Where can the DIANA hoist be used?

Horcher GmbH has been designing and manufacturing hoists since 1986. We take great pride that the DIANA is used by individuals, families and professionals in private residences, hospitals, nursing homes and a variety of other settings throughout Europe and North America.

The DIANA is primarily intended for indoor use only and has been designed as a lifting and transfer device to make life easier for both patients with restricted mobility and their carers.

2) Operating Instructions

2.1) General

The DIANA hoist is delivered fully assembled and with the batteries already charged. To make it ready for use, simply place the battery pack into the console at the back of the mast and pull out the big red knob at the bottom of the console. This red knob is also the emergency ON/OFF button. If pushed in, the electric circuit is interrupted and the hoist stops immediately. Pulling the button out starts the hoist again.

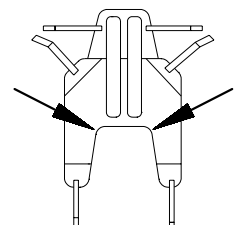


Before using the DIANA make sure that the path that you are about to take is clear of all obstacles and explain the lifting procedure to the patient. Drive the DIANA up to the patient and spread the base legs as necessary. The legs are spread by adjusting the lever fitted to the base to one of three positions:-

Lever on the left = parallel base legs
 Lever in the middle = base half open
 Lever on the right = base opened wide

2.2) Applying the sling in a sitting position

Starting at the shoulders slip the sling behind the patient's back. Work the sling down past the hips and the surface of the seat. The back of the sling should be pushed down behind the back as far as possible and, depending on the sling used, the top part of the sling should end up at either the head or the shoulders. The bottom "legs" of the sling wrap under and up between each of the user's legs. The straps should be placed as high up on the thigh as possible to ensure maximum patient comfort during lifting.



2.3) Applying the sling in a fully reclined position

Lift the upper body enough to slide the sling behind the back or, alternatively, roll the user onto their side whilst placing the sling behind their back. Gently roll the patient back onto the sling and pull the sling through to the other side of the body. The legs straps can be applied as described above i.e. wrap them under and up and between the user's legs as high up as possible on the thigh.

2.4) Attaching the sling to the hoist

All straps must be attached to the hoist before lifting. The method of attaching the sling to the hoist is dependent on whether you have a DIANA with a standard spreader bar or a patient positioner.

2.5) Attachment to a standard spreader bar

The sling is attached to the standard spreader bar hooks by the loops located at the end of each strap. Attach the shoulder strap loops to the outer hooks and the loops of the leg straps to the inner hooks.

N.B. The straps on most slings are fitted with three loops allowing three different strap lengths – long, medium or short. The short length on the leg straps sits the user in a more reclined position and the longer straps place the user in a more upright position. The shorter length shoulder straps sit the patient more upright and the longer length shoulder straps place him/her in a more reclined position. Please consider the user's comfort and any physical restrictions when deciding which straps to use. In all circumstances, please ensure that the same length is chosen for the top pair and equal length for the bottom pair otherwise the patient will be positioned unevenly when lifted.

2.6) Attachment to a patient positioner

If your DIANA is fitted with a patient positioner it will either be designed for slings with loops or slings with clips.

Slings with clips are attached by means of four safety clips located at the end of each safety strap. They fit over and lock onto four pins on the shoulder and leg bars of the positioner.

Slings with loops are fitted in a similar manner but to hooks rather than pins.

2.7) Lifting

After fitting the sling and prior to lifting the patient lock the rear castors. Likewise the castors should be locked prior to lowering the patient. Before and during the lift explain the lifting procedure to the patient. A carer should watch the patient whilst lifting to make sure that he/she is comfortable and safe.

To lift, press the button on the hand controls with an arrow pointing upwards. To lower, press the button with an arrow pointing downwards.

All DIANA hoists can be fitted with an electric patient positioner, the hand controls for which have two additional buttons which are underneath the Up/Down buttons referred to above. Pressing the lower left button brings the patient into a reclined position. Pressing the lower right button brings the patient into a sitting position.

3) Auxiliary lowering device.

All DIANA hoists are fitted with an auxiliary lifting/lowering switch. This is situated to the left of the big red emergency On/Off button on the battery console (see para 2.1 above). Press the top of the switch to raise the patient and the bottom of the switch to lower the patient.

4) Intelligent Battery Systems

Your DIANA uses Intelligent Battery Systems (IBS) which, unlike some other battery systems, will not discharge itself if left idle for a period of time. The IBS automatically

- checks the output of the energy being used
- goes into a sleep mode if the battery has not been used for three minutes
- alerts the user when the battery is low via an intermittent tone
- if the intermittent tone is ignored by the user it is replaced by a continuous tone
- shuts the battery off to prevent damage being caused if the alert tones continue to be ignored

The batteries will be charged before delivery and have a 2.7 Ah capacity. Under normal circumstances the batteries should be able to lift a person weighing 160kg approximately 90 times assuming an average lift duration of 30 seconds. Unlike some other battery systems, IBS does not need to be fully discharged before recharging.

5) Battery charger

The wall mounted battery charger should not be installed in a damp area or near a water supply.

We recommend that you have a spare set of batteries charged at all times.

To charge the battery, plug it into the charger. The charging light on the charger will come on.

The battery is fully charged when the charging light goes off. The charger shuts off automatically when the batteries are fully charged. You cannot overcharge the batteries.



6) DIANA Comfort with swivel mast option

All DIANA Comfort models can be fitted with a swivel mast. *A stainless steel floor plate must be fitted before the mast can be used and this can only be done by a technician who has been authorized to do so by the supplier of your DIANA hoist.*

7) Cleaning

Do not use strong detergents to clean the hoist – a damp, clean cloth should suffice.

Periodically check the wheels to make sure that they are free of dust and dirt.

Follow the washing instructions on the sling. If the sling is fitted with head support stays they must be removed prior to washing.

8) Warranty

All mechanical and electrical components of the DIANA have a two year warranty from the date of the original purchase and delivery, providing such defect is the result of poor craftsmanship or inherent defect in component material and not the result of improper use or handling. Slings are specifically excluded from this warranty.

9) Servicing

We strongly recommend that your DIANA hoist be serviced once every twelve months by your authorized Horcher supplier.

Servicing history

Date	Comments	Service Engineer	Signature

10 Technical information**DIANA Sonja Hoist**

Base length incl. wheels	1020 mm
Base width (closed) incl. wheels	585 mm
Base width (fully spread) incl. wheels	870 mm
Minimum turning radius	600 mm
Height incl. mast	1450 mm
Weight of hoist	37,5 kg
Maximum carrying capacity	160 kg
Battery capacity	24V / 2.7 Ah
Battery charger	220V / 24V / 1A
Battery fuse	5A

**DIANA Compact E**

Base length incl. wheels	1170 mm
Base width (closed) incl. wheels	580 mm
Base width (fully spread) incl. wheels	980 mm
Minimum turning radius	590 mm
Height incl. mast	1360 mm
Weight of hoist	37,5 kg
Maximum carrying capacity	160 kg
Battery capacity	24V / 2.7 Ah
Battery charger	220V / 24V / 1A
Battery fuse	5A



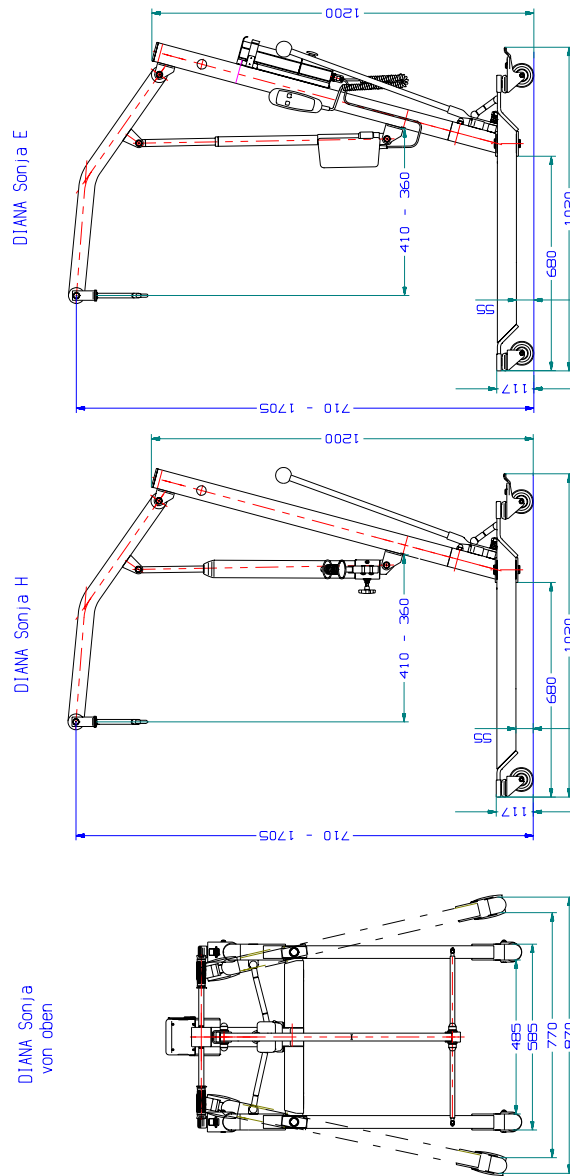
DIANA Comfort E

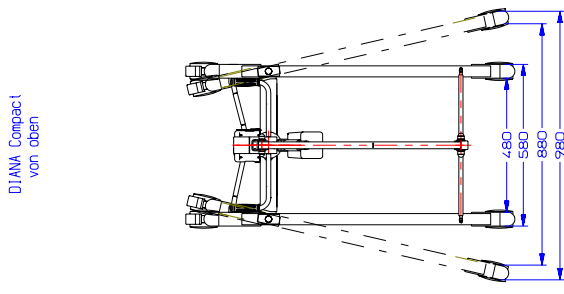
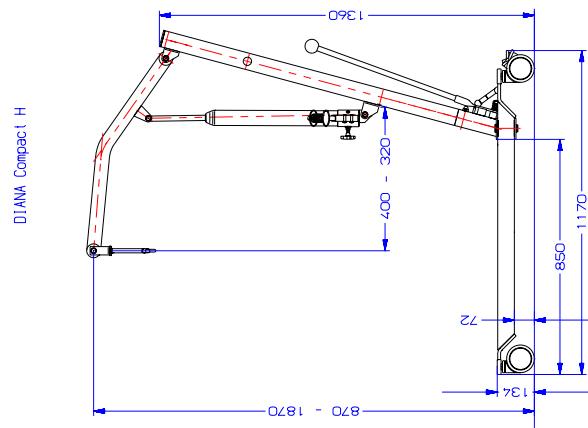
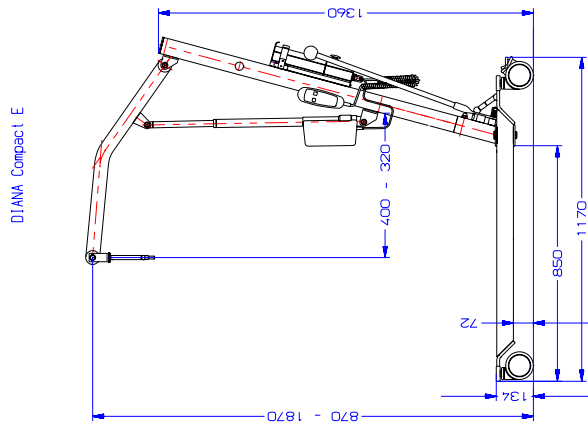
Base length incl. wheels	1170 mm
Base width (closed) incl. wheels	580 mm
Base width (fully spread) incl. wheels	980 mm
Minimum turning radius	655 mm
Height incl. mast	1450 mm
Weight of hoist	38,5 kg
Maximum carrying capacity	160 kg
Battery capacity	24V / 2.7 Ah
Battery charger	220V / 24V / 1A
Battery fuse	5A

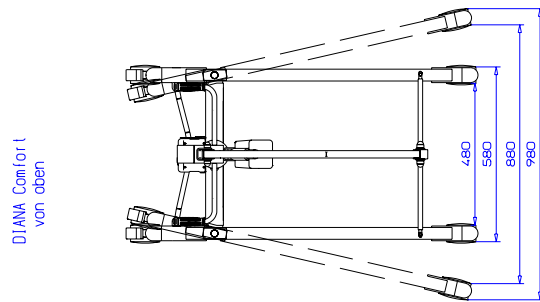
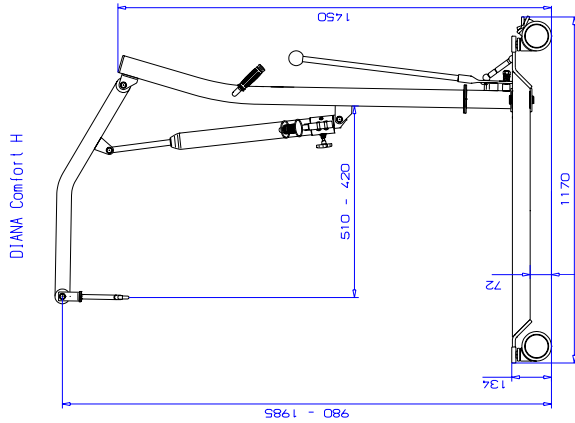
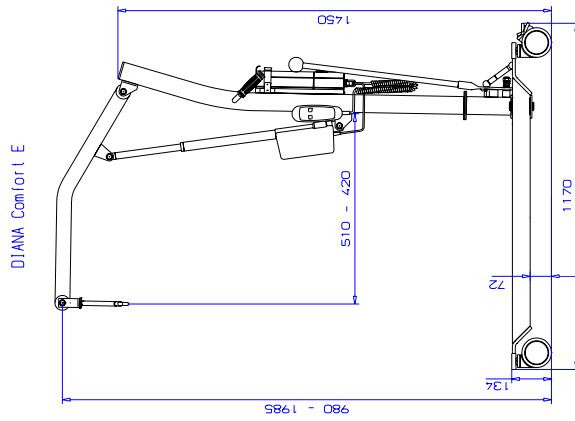
**DIANA Comfort E with electrical patient positioner**

Base length incl. wheels	1170 mm
Base width (closed) incl. wheels	640 mm
Base width (fully spread) incl. wheels	1020 mm
Minimum turning radius	670 mm
Weight of hoist	39 kg
Maximum carrying capacity	160 kg
Battery capacity	24V / 2.7 Ah
Battery charger	220V / 24V / 1A
Battery fuse	5A









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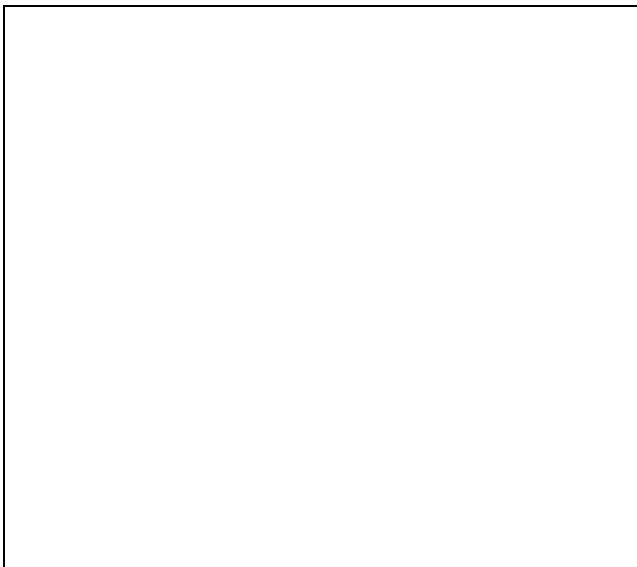
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Your authorized supplier is



Horcher GmbH has a policy of continuous product development and reserves the right to change specification without notice.