

en

---

***Safety with Meyra-Wheel-  
chairs, also during trans-  
port in motor vehicles***

---



CE

 **MEYRA®**

# Contents

|   |    |
|---|----|
| <b>Meaning of the applied markers</b>                 | 3  |
| <b>Introduction</b>                                   | 3  |
| <b>Safety information</b>                             | 4  |
| <b>Transport of people inside a motor vehicle</b>     | 5  |
| Using the wheelchair as a passenger seat              | 5  |
| Securing the wheelchair with tension belts            | 6  |
| Securing the wheelchair with the Dahl docking station | 7  |
| Wheelchair locking / unlocking                        | 7  |
| Securing the user in the wheelchair                   | 8  |
| Clear space   | 10 |
| <b>Transport in public methods of transportation</b>  | 11 |
| Parking space   | 11 |
| User information                                      | 11 |
| <b>Sources for anchoring sets</b>                     | 11 |
| Power knot sets                                       | 11 |
| Dahl Dockingstation                                   | 11 |

# **MEANING OF THE APPLIED MARKERS**

Safety instructions with a coloured background are mandatory and need to be observed under any circumstance!

- ☞ This symbol indicates tips and recommendations
- [ ] Reference to a picture number
- ( ) Reference to a function element within a picture.

## **INTRODUCTION**

This document is to give you an overview of the measures required in order to transport a person sitting inside a wheelchair\* preferably safely inside a transport vehicle.

Further information on safe person transport inside a wheelchair can be found in the < Operating manual > and in the < Safety and general handling information > that come with every wheelchair.

- ☞ These documents are available for download on our website < [www.meyra.com](http://www.meyra.com) >.

\*

The term wheelchair used in this document is synonymous for:

Manually driven wheelchairs,

Electric wheelchairs

## **SAFETY INFORMATION**

We do not recommend the use of a wheelchair as a seat for transport inside a vehicle.

If and whenever possible the seats installed inside the motor vehicle and corresponding safety systems should be used.

We do not take responsibility for physical impairments to the user of our products in case of a traffic accident.

Securing- and retaining systems, even when used correctly, can only minimise the risk of injuries but are not able to diminish them completely.

The safety of the person transported inside the wheelchair depends greatly on the person responsible for the transportation. Ensure that he or she is trained accordingly, is familiar with the relevant rules and acts upon them. This person should especially be aware of possible risks.

Never use transportation means that are not approved for transport of people sitting inside a wheelchair.

For a wheelchair to be used as a seat inside a vehicle, it needs to be equipped with special anchor points. – Only with these the wheelchair can be secured effectively inside the transport vehicle. These anchor points are not always a part of the scope of delivery of the wheelchair, but can optionally be purchased.

Secure your wheelchair so that in case of dangerous driving manoeuvres injuries caused by the wheelchair cannot occur.

Changes on the wheelchair and especially the anchor points may not be made.

The wheelchair is to be secured according to the operating manual of the manufacturer of the suspension system.

Only 4-point anchoring systems according to ISO 10542-1 or certified anchoring sets according to ISO 7167-19 may be applied.

The driver of the motor vehicle, resp. the accompanying person is responsible for the professional securing of the wheelchair inside the transport vehicle.

It is to be ensured, that in case of an accident the spanning jigs cannot be loosened or opened by any part of the wheelchair.

An accident of the motor vehicle can damage the structure of the wheelchair. Wheelchairs that are involved in this incident must be checked by a specialist workshop before further use.

An electric wheelchair must be equipped with maintenance free batteries.

Attachment systems according to ISO 10542-1 norm or ISO 7176-19 norm are to be applied.

Only transport the wheelchair in driving direction.

The accessibility of the space for securing the wheelchair depends mainly on the dimensions of the wheelchair and its turning radius. With smaller (compact) wheelchairs it is easier to access the space for securing the wheelchair. – View < Technical data > in the operating manual of your wheelchair.

# TRANSPORT OF PEOPLE INSIDE A MOTOR VEHICLE

It is never possible to reach the same level of safety when transporting a person seated inside a wheelchair as opposed to the use a seat firmly mounted inside the vehicle.

- ☞ Therefore, whenever possible, we recommend to transfer the person onto a seat firmly mounted into the vehicle.

If transport of a person seated inside a wheelchair is inevitable, the wheelchair must tested according to ISO 7176-19.

## Using the wheelchair as a passenger seat

- ☞ Whether or not your wheelchair is certified as a seat for transportation in a motor vehicle, can be viewed in chapter *Meaning of the labels on the wheelchair* in the operating manual of your wheelchair.



The product is **not** approved as a seat within a motor vehicle.

If your wheelchair corresponds with the requirements of ISO 7176-19 , the following passages apply:

- ☞ The wheelchair underwent a frontal crash test with a norm dummy, during which it was anchored in place in driving direction of the motor vehicle.
  - Other configurations were not tested.
- ☞ The dummy was secured with a pelvic- (restraining strap of the wheelchair) and upper body safety belts (within the transport vehicle 3-point belt).
  - Both types of retaining straps should be used in order to minimise the risk of injuries to the head or upper body.

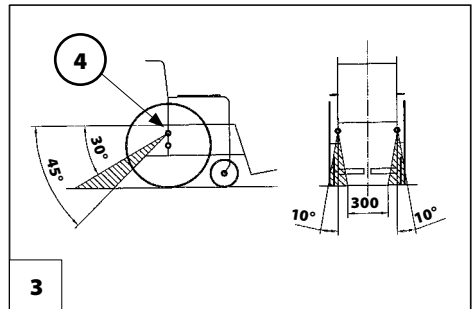
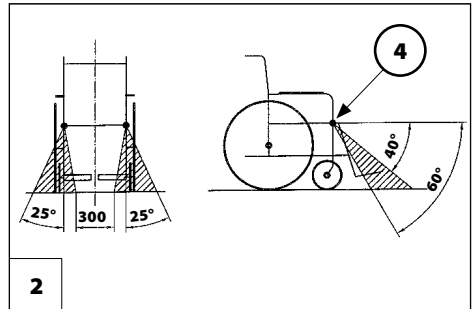
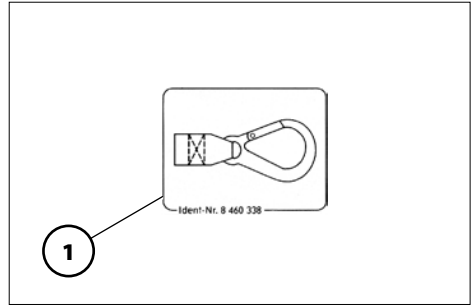
## Securing the wheelchair with tension belts

For this the regulations of the respective transport company are to be observed.  
Only use fastening material approved according to ISO 10542.

For heavy electric wheelchairs (> 85 kg empty weight) it might be necessary to simultaneously use more than one rear anchor sets. For this you need to observe the manufacturers indications of the anchor sets!

Proceed as follows for the transport safety:

1. Switch the wheelchair off and switch to drive mode (clutch in the drive).
- ☞ View < Operating manual >.
2. Stow all disassembled wheelchair parts in a secure and protected way.
  3. Secure the wheelchair according to the operating manual of the suspension system manufacturer.
- ☞ Only attach the fastening straps to designated parts of the transport vehicle as well as the wheelchair.
  - ☞ The anchor points (4) of your wheelchair are each marked with the symbol (1).
  - ☞ Please look up the positions of the anchor points in the operating manual of your wheelchair.
  - ☞ The straps of the anchoring system must be assembled in the shaded angle area to the floor of the vehicle (2)+(3). In doing so, large angles are to be favoured.



## Securing the wheelchair with the Dahl docking station

For this the regulations of the respective transport company are to be observed.

Only drive wheelchairs equipped with the docking set into Dahl Engineering anchoring units [1], [2].

Before use make sure that the product is functional. – Danger of accidents!

A higher user weight indicated on the type plate of your wheelchair is limited by the permitted user weight of the docking station.

Do not use a loose locking plate to anchor the wheelchair. – Increased danger of accident!

Correct anchoring of the wheelchair with the dockingstation only happens with the weight of the user.

A ground clearance described in the operating manual is limited to 70 mm by the mounted locking plate of the Dahl Dockingstation.

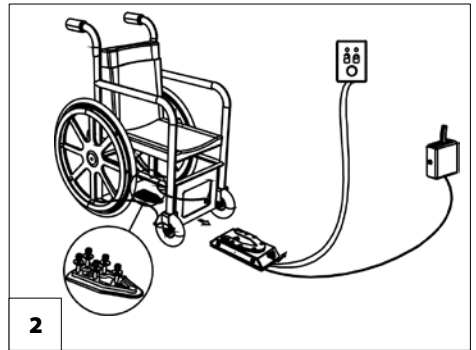
Your wheelchair is locked down into the transport vehicle with the docking station [1].

### Wheelchair locking / unlocking

Herefore observe the operating manual of the Dahl Dockingstation.

Further information to the Dahl Docking Station can be found on the website:  
< [www.dahlengineering.dk](http://www.dahlengineering.dk) >.

The general handling is described schematically [2].



## Securing the user in the wheel- chair

The retaining strap that may be available on the wheelchair does not replace a seatbelt.

Only safety straps tested according to ECE 10542 -1 may be applied.

☞ Certified retaining straps are marked with a note of the tested norm and certification number.

Angle adjustable back supports are to be set vertically.

Height- / and seat angle adjustable seats are to be brought into the basic position.

Height- / angle adjustable leg supports are to be brought into the basic position.

Not tested equipment versions, as for example special controls or therapy table can increase the risk of injuries and like removable accessories are to be removed from the danger area and stored safely.

Retaining straps should be tightened as much as possible, without the user feeling uncomfortable.

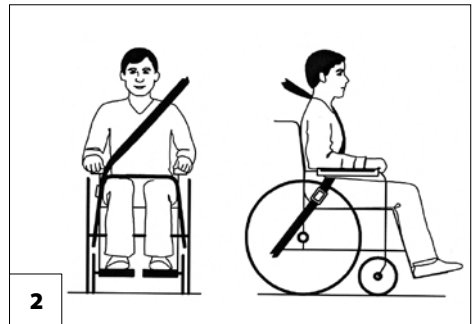
Retaining straps may not be twisted.

Make sure that no objects are trapped between strap and the body! – Thus you avoid painful pressure points.

A head support that might be attached to the wheelchair only serves for support during regular operation, but cannot replace the firmly mounted head support of the motor vehicle!

Retaining straps must lie close to the body of the user. They may not lead over arm supports or drive wheels [1].

The lap and shoulder strap should lie unencumbered and not too loosely between the hip and thigh of the user [2].



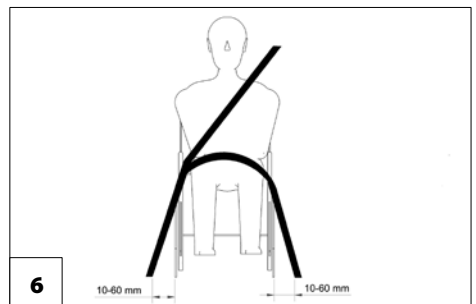
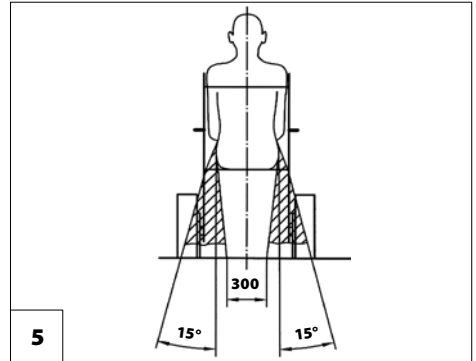
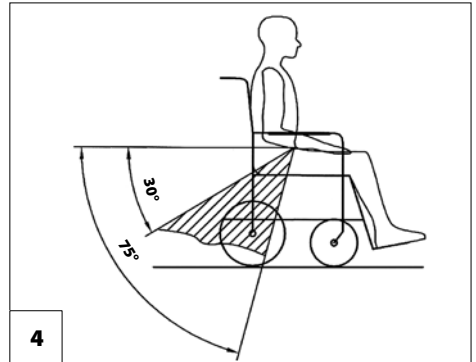
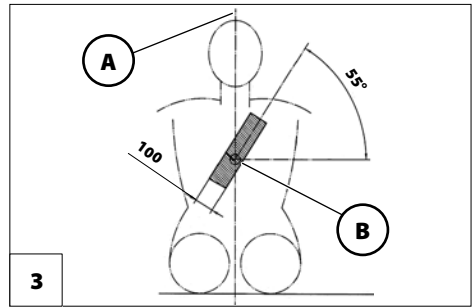


The Three-point- / shoulder belt built into the transport vehicle should be applied as shown in [3]. – Line (A) depicts the center line of the body and position (B) the center of the sternum (breastbone).

The straps of the personal securing system must be assembled in the shaded angle area to the floor of the vehicle [4]+[5]. In doing so, large angles are to be favoured.

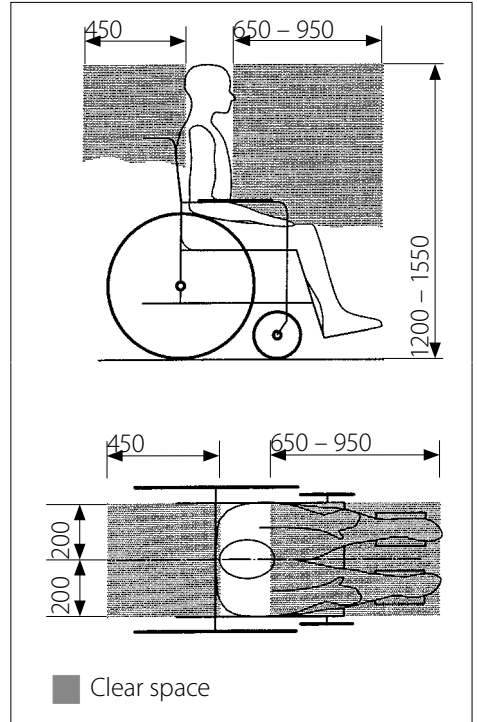
### Securing the user inside the wheelchair with the Dahl docking station

To ensure safe driving onto the Dahl docking station the anchor points of the safety belt for the user should lie 10 – 60 mm outward of the wheels [6].



## Clear space

Enough clear space must be kept around the user of the wheelchair. This must be 650 mm toward the front if shoulder and lap straps are applied (which is strongly recommended) and 950 mm when only the lap strap is applied. The clear space toward the back must be 450 mm. Toward the top the clearance of 1200 mm must be given for a small female adult and 1550 mm for a larger male adult.



# **TRANSPORT IN PUBLIC METHODS OF TRANSPORTATION**

## **Parking space**

The space designated for parking must correspond to EG-regulation 2001/85/EG.

## **User information**

Park your wheelchair opposite to the driving direction in the reserved space.

The wheelchair is to be placed so that the back support it will be supported by the border of the parking space.

One side of the wheelchair must also lie against the border of the parking space, so that the wheelchair cannot slide away in case of an accident. If available, activate the parking brake.

# **SOURCES FOR ANCHORING SETS**

Anchor set acc. to ISO 7176-19 are partially integrated serially into our wheelchairs, otherwise they are optionally available.

## **Power knot sets**

Anchor sets acc. to DIN 75078, so called "power knot sets" can be acquired from:

AMF-Bruns  
Apener Maschinenbau & Förderanlagen  
Gustav Bruns GmbH & Co.KG  
Hauptstraße 101  
D-26689 Apen

+49 (0)4489-727101  
[www.amf-bruns.de](http://www.amf-bruns.de)

## **Dahl Dockingstation**

Anchor sets according to ISO 10542-1 and ISO 7176-19 can be purchased from:

DAHL ENGINEERING APS  
Løvevej 3  
DK-7700 Thisted

+45 96180077  
[www.dahlengineering.dk](http://www.dahlengineering.dk)

Your specialist dealer

---

---

**MEYRA GmbH**

Meyra-Ring 2



32689 Kalletal Kalldorf  
GERMANY



Tel +49 5733 922 - 311  
Fax +49 5733 922 - 9311



info@meyra.de

www.meyra.de

---