en

Hurricane

Model 1.880

Operating manual

CE

MEYRA®

We move people.

Contents

INTRODUCTION

We thank you for the confidence you have placed in our company by choosing a wheelchair from this series.

With all equipment and their accessories the wheelchair offers die respective adaptation to your disability.

Like any other vehicle, a wheelchair is a technical aid. It is subject to explanations, requires regular care and can cause danger when used improperly. The correct handling must therefore be learned. This operating manual is to help you get accustomed to the handling of the wheelchair as well as to prevent accidents.

☞ **Note:**
Please note that the illustrated equipment variants can deviate from your model.

We have therefore also listed chapters with options that might not be applicable for your individual wheelchair.

Important information

Attention:
! Read and observe the following documentation belonging to the wheelchair before first operation:

- this operating manual,
- the safety and general handling instructions < *Mechanical and muscle powered wheelchairs* >.

☞ **Note:**
Children and juveniles should read the documentation belonging to the wheelchair together with their parents respectively a supervisor or an accompanying person before first use.

Users with visual impairments can find the PDF-files of above mentioned documents on our website under:

< *www.meyra.com* >.

☞ Contact your specialist dealer when required.

Alternatively users with visual impairments can have the documentation read out by a helper.

Additional information about our products can be found on our website:
< *www.meyra.com* >.

☞ Contact your specialist dealer when required.

LIST OF MODELS

This operating manual applies to the following models:

Model 1.880

INDICATIONS

If the following indications occur we recommend the application of this mobility product:

- ☞ Walking disability resp. extremely limited walking ability as part of the basic need to move around in your own home.
- ☞ The need to be able to leave home for a short walk in fresh air or in order to reach the places, commonly in the perimeter of the home, required to fulfil basic needs.
- ☞ The ability to use the adaptive wheelchair with own personal strength must be given. Provision with an adaptive wheelchairs can be an option, when the adaptation and adjustment possibilities of standard or lightweight wheelchairs are not sufficient.

ACCEPTANCE

All products are checked for faults in the factory and packed in special boxes.

- ☞ **Note:**
  However, we request that you check the vehicle for possible transport damage immediately on receipt – preferably in the presence of the carrier.
- ☞ The packaging of the wheelchair should be stored for a further transport that might become necessary.

SPECIFICATIONS

The wheelchair *Hurricane*, was developed for adults and adolescents.

The wheelchair solely serves to transport one person in the seat and not as a hauling aid, transporter or similar.

USE

The wheelchair is to be used on firm surfaces.

Attention:

! Do not use the wheelchair in the shower or wet areas such as sauna or thermal baths.

The wheelchair offers manifold adjustment possibilities to individual vital statistics.

The wheelchair should be adapted to your needs by a specialist dealer before the first use. The adaptation will take into account the driving experience, the physical limits of the user and the main place of use of the wheelchair.

Attention:

! Always have adaptation and adjustment work carried out by a specialist dealer.

ADJUSTMENT

The specialist workshop will hand out the wheelchair to you under consideration of all relevant safety instructions, ready for operation and adjusted to your needs.

☞ **Note:**
We recommend a regular control if the wheelchair adjustment in order to ensure a long-term optimal provision even with changing illness/handicap patterns of the user. Especially for children and juveniles an adjustment every 6 months is recommendable.

☞ We recommend regular medical exams in order to ensure safety for active participation in traffic.

☞ Retrospective adjustments should be carried out solely by the specialist dealer!

REINSTALLMENT

The wheelchair is suited for reinstallment.
With the building block system the wheelchair can be fit to accommodate different handicaps body sizes.

LIFE SPAN

We expect an average life span of about 5 years for this product, as far as the product is applied for its designated purpose and all maintenance and service guidelines.

The life span of your product depends upon the frequency of use, the application environment and care.

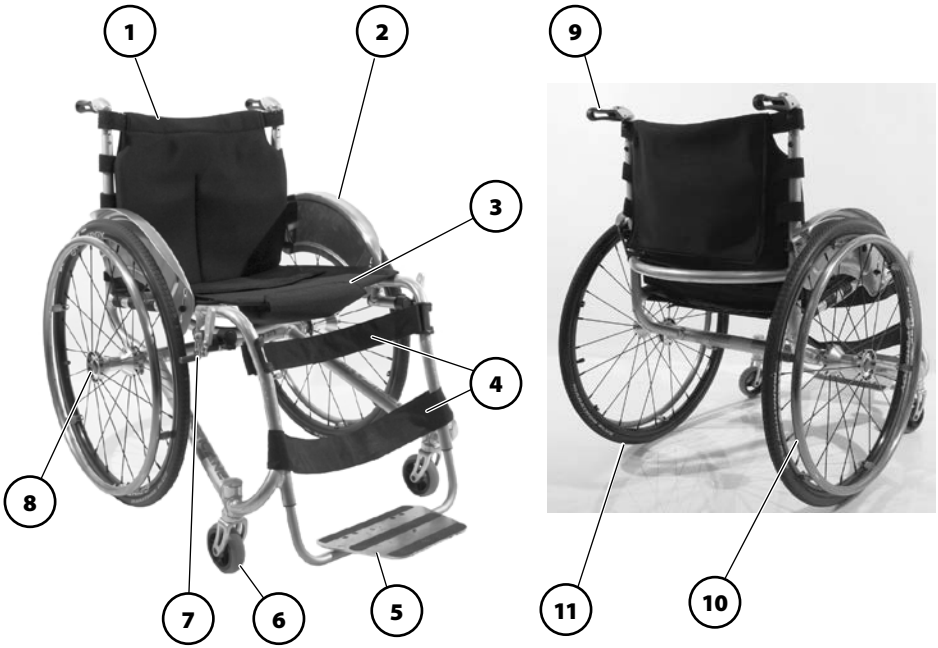
The implementation of spare parts can prolong the life span of the product. As a rule spare parts are available up to 5 years after production is discontinued.

☞ The indicated lifespan does not constitute additional guarantee.

OVERVIEW

Model 1.880, Hurricane

The overview shows the most important components of the wheelchair.



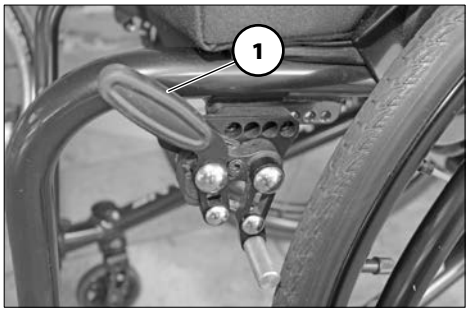
Pos. Description

(1) Back support
(2) Arm support
(3) Seat belt/seat cushion
(4) Calf strap
(5) Footplate
(6) Steering wheel
(7) Brake
(8) Quick release axle
(9) Push handle
(10) Handrims
(11) Driving wheel

BRAKE

By locking the brakes with the brake lever (1), the wheelchair is secured against rolling away unintentionally (parking brake).

The locking brake belongs to the most important safety features of a wheelchair and is available as a pressure brake (1) or Light-brake (2) for *every day versions*.

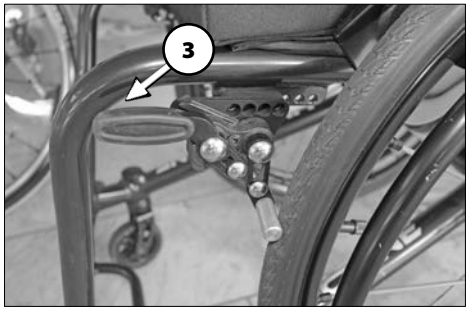


☞ **Note:**
Therefore observe the *Maintenance schedule* on page 32 as well as safety and general handling instructions < *Mechanical and muscle powered wheelchairs* > chapters < *General safety information* > and < *Brakes* >.

Pressure Brake

Locking the pressure brakes

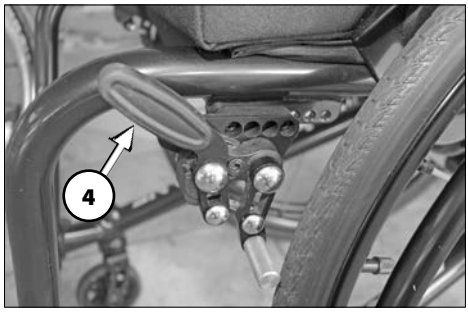
To secure the wheelchair against any unintentional rolling, press both brake levers forward all the way (3).



☞ **Note:**
It should not be possible to push the wheelchair forward when both brakes are locked.

Releasing the pressure brakes

Pull both brake levers back all the way (4).



Light-Brake

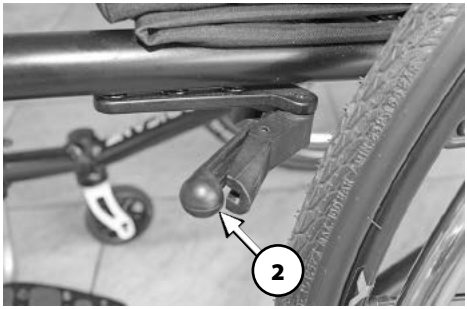
Locking the Light-brake

To secure the wheelchair against any unintentional rolling, press both brake levers toward the back as far as possible [1].

☞ **Note:**
It should not be possible to push the wheelchair forward when both brakes are locked.

Releasing the Light-brake

To release the brake press both brake lever locking devices (2) forward and turn both brake levers as far as possible underneath the seat (3).



Adjusting the brakes

According to the chapter *Maintenance schedule* on page 32the brakes are to be checked for function after each repositioning of the drive wheels and readjusted if necessary.

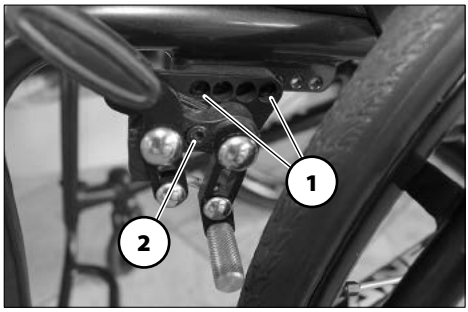
Check the pressure resp. Light-brake under observation of

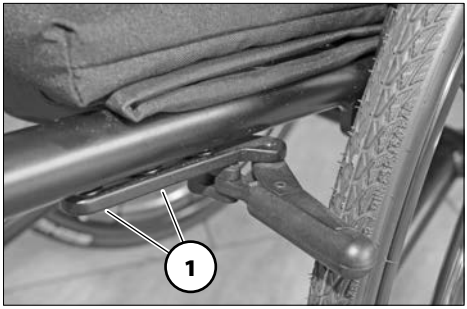
– tread of the drive wheels,
– air pressure of the tyres and
– user weight

adjust evenly. – Danger of accidents caused by one sided braking effect!

1. Repositioning the brake brackets.
   ☞ Therefor remove the attachment screws (1).
2. Afterwards reposition the respective brake bracket accordingly.
3. Remount the brake bracket.
4. Adjust opposite brake as described.

☞ **Note:**
Function and accurate fit of the brakes.



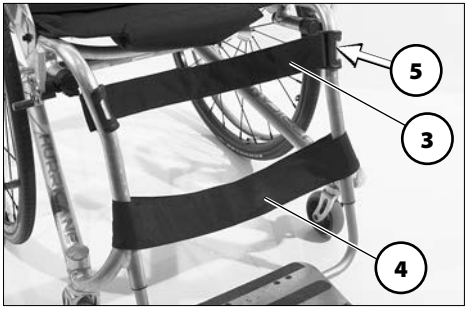


Fine adjustment of the pressure brakes

1. Slacken the clamping screw (2).
2. The respective fine-tuning is achieved by slightly sliding the respective pressure brake within the area of the clamping rail.
3. Retighten the clamping screw (2).

☞ **Note:**
Inspect function and accurate fit of the pressure brakes

CALF STRAP



The calf straps, version (3)+(4) prevents the feet from sliding off of the footplates.

The calf strap (3) is guided around a special ligament of the calf strap clip (5) and adjusted in length with a velcro fastener.

Removing and attaching the calf strap (3) is achieved with the calf strap clips (5).

Attention:

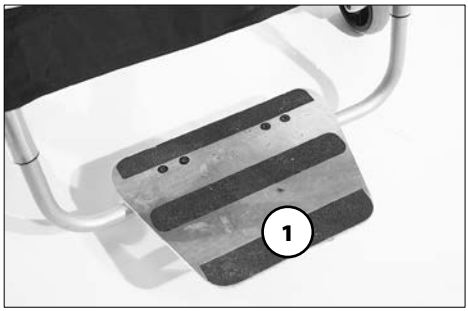
! Do not drive without the calf belt!

LEG SUPPORTS

Attention:

! Before any actions on the leg supports the wheelchair is to be secured against unintentional rolling motions.

☞ Therefore observe chapter *Brake* on page 10.



Lower leg support

Footboard

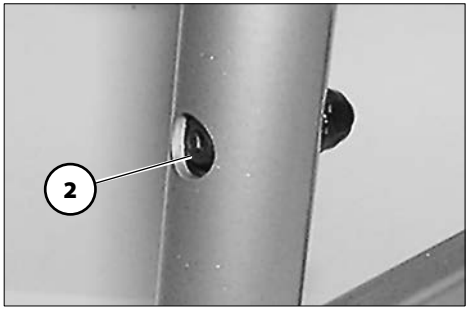
The footboard (1) can be adjusted to your individual demands in height, tilt and depth.

Attention:

! Do not use the footboard to lift or carry the wheelchair.

- The wheelchair is to be secured before any maintenance work, e.g. by activating the parking brake. – This prevents the wheelchair from rolling away accidentally.

☞ **Note:**
Watch for loose parts such as nuts and washers!



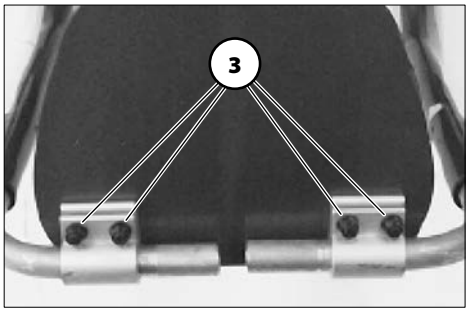
Adjusting the height of the footboard

1. For this disassemble the screws (2) on both sides.
2. Position the footboard (1) parallel, according to the desired height.
3. Afterwards reassemble the screws (2) on both sides.

Adjusting the angle of the footboard

The footboard can be adjusted continuously in angle.

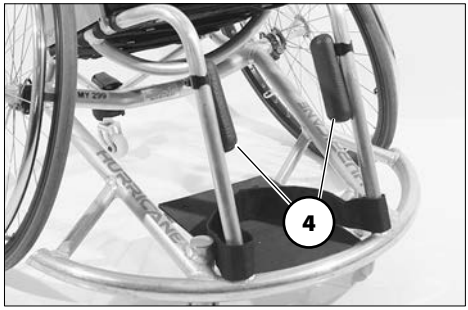
1. Loosen the screws (3).
2. Press the footboard in to the desired angle. – In doing so observe the ground clearance.
3. Retighten the screws (3).



Adjusting the depth of the footboard

For a further position the footboard can be turned 180°.

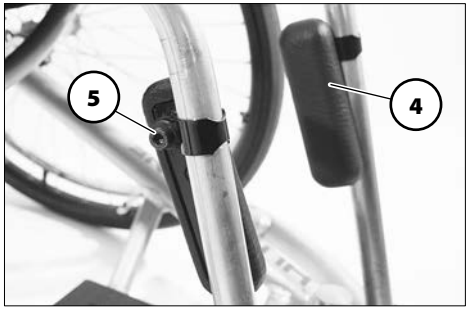
1. Dismantle the screwed connections (3).
2. Turn the footboard 180°.
3. Reassemble the screwed connections (3).
   ☞ In doing so adjust the angle of the footboard.



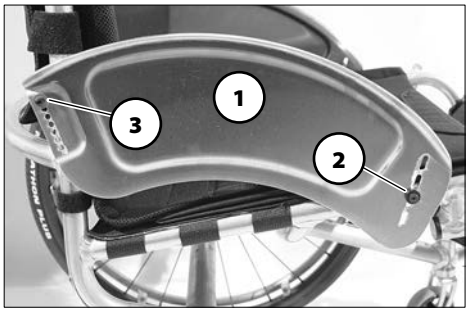
Leg fixation

The leg fixation (4) can be adjusted continuously and positioned individually.

1. Slacken the screw (5).
2. Relocate the leg fixation to the desired position.
3. Retighten the screws (5).



ARM SUPPORTS



Attention:

! Before any actions on the arm supports the wheelchair is to be secured against unintentional rolling motions.

☞ Therefore observe chapter *Brake* on page 10.

The arm supports (1) serve at the same time as arm support, clothes guard and wind guard.

Attention:

! No not grab between the frame and arm support. – Danger of squashing!

- Do not lift the wheelchair using the arm supports.
- The wheelchair should only be used with the arm supports assembled!

Adjusting the arm support to the wheel circumference

The distance X to the arm support running parallel to the wheel diameter is to be aligned to the respective wheel position.

Attention:

! The distance X between the driving wheel and the arm support should be as small as possible (approx. 1 cm). – Danger of crushing!

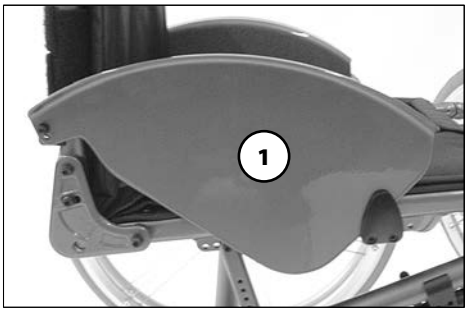
1. Remove drive wheel, (view chapter *Drive wheels* on page 26).
2. Dismantle the screws (2)+(3).
3. Position the arm support to the equalising wheel circumference.
4. Reassemble the screws (2)+(3).

Swivelling up the arm support

Pull the arm support with a little forward pressure out of the bracket (clamping mechanism) and swivel it upwards (2).

Attention:

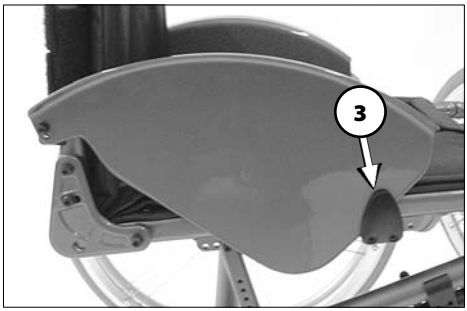
! Removed side elements must be carefully replaced before the wheelchair is used again!



Inserting the arm support

Clamp the arm support with a little pressure as far as possible into the arm support bracket (3).

☞ **Note:**
Check the correct clamping of the arm supports.



Swivelling the arm support inward

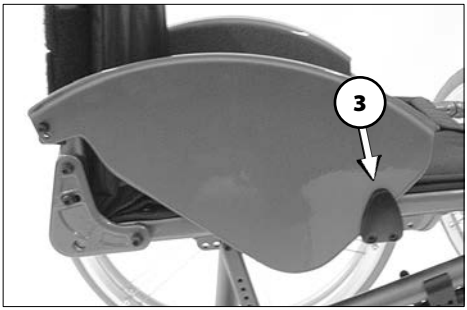
The arm supports must be swivelled in front of the back support (4) in order to be folded forward (5).

Pull the arm support with a little pressure forward out of the bracket (clamping mechanism) and swivel it inward in front of the back support (4).

Inserting the arm support

Swivel the arm support outward and clamp with a little pressure as far as possible into the arm support bracket (3).

☞ **Note:**
Check the correct clamping of the arm supports.



Welded arm support / side part

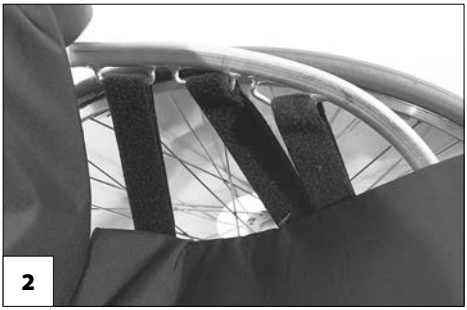
The welded arm support (1) has a firm side wall.

Open arm support / side part

The welded arm support with open side wall has velcro straps (2).

☞ No splash guard!

1


2

BACK SUPPORT

Attention:

! Before any actions on the back supports the wheelchair is to be secured against unintentional rolling motions.

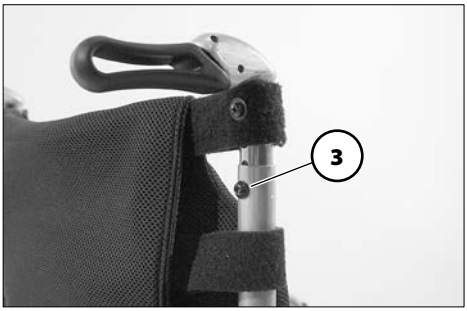
☞ Therefore observe chapter *Brake* on page 10.

Adjusting the back support belt

The height of the back trap can be adjusted in 1 cm steps.

☞ On the sports version it is not possible to adjust the back strap height.

1. Therefore remove the cushion (1) (2).
2. Disassemble the attachment screw (3) on both sides.
   ☞ In necessary remove the protective cushion first (velcro).
3. Adjust the upper strap parallel in height.
4. Afterwards reassemble the screws (3) on each side (2).



Adjustable back

The adjustable back is adjustable through a velcro strap, the so called spanning straps (2).
The cushion (1) is placed over it and attached with the velcro strap.

Adjusting the adjustable back

☞ **Note:**
Adjustment of the adjustable back strap (2) is best achieved while the user is sitting inside the wheelchair.

☞ Adjustment is carried out from the bottom to the top.

☞ The lower part of the adjustable back should remain slightly loose so that it adapts to the buttocks when bending forward.

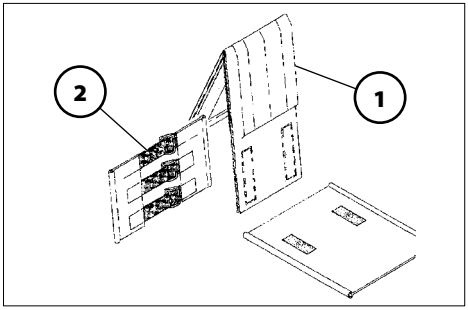
Attention:

! The overlapping of the Velcro fastener has to be at least 10 cm!

1. Pull off the rear part of the cushion.
2. Span the spanning straps tightly over the small of the back and lumbar spine in order to give maximum support.
3. Adjust the remaining straps to the form of the back.
4. Afterwards loosen the front part of the cushion and align it with the spanning straps.
   ☞ In doing so the user should lean forward. If necessary ask an aid to help out!

Place the back cushion

The back cushion (1) is to be folded over in the centre between the two horizontal seams 180° around the upper spanning straps (2). – This creates a soft upper edge.



☞ **Note:**
When the user leans against the front cushion again, pay attention that:

☞ The pressure of the back must be spread evenly throughout the back cover.

☞ A complete hand should fit in between the cover and back at the upper edge of the back cover.

☞ The head of the user must be held at balance by the back cover.

Foldable backrest

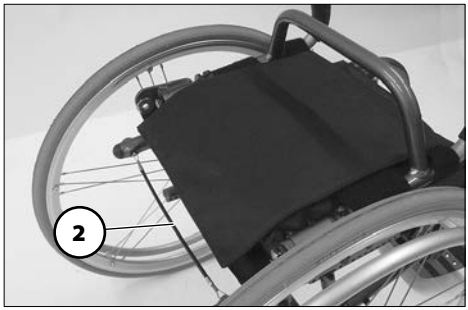
Folding over the back support

The back support can be folded down for storage or transport.

1. For this swivel the arm supports in first (1).

   ☞ Therefore observe chapter *Swivelling the arm support inward* on page 18.

2. Disengage the back support by pulling or pressing the strap (2) at its centre and fold it onto the seat.



Folding up the back support

For raising it again jerk the pushing bar back as far as possible (1). – The pressure bolt must audibly lock into place.

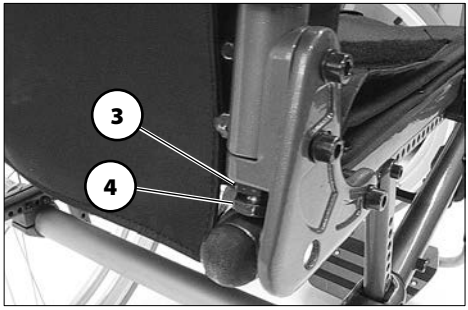
☞ **Note:**
The greasing of the thrust bolts is recommended for an easier latching of the backrest.

Reinsert the arm supports.

☞ Therefore observe chapter *Inserting the arm support* on page 18.

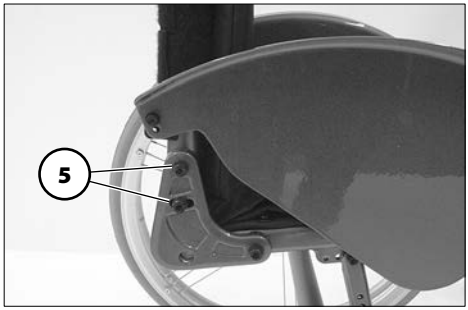
Adjusting the back support angle

The angle of the backrest to the seat surface can be adjusted from +6° to -18°.



1. Swivel up the arm support.
2. Loosen the counter nuts (3) of the stopper screws in the frame tube.
3. Screw in end stop screws (4) if necessary.
4. Loosed the clamping screws (5) on each side.
5. Readjust the angle of the back support.
6. Retighten the clamping screws (5) on each side.
7. Unscrew the stopper screws (4) as far as possible onto the respective frame tube.
8. Retighten the counter nuts (3) of the stopper screws.
9. Reinsert the arm supports.

☞ Therefore observe chapter *Inserting the arm support* on page 18.



Attention:

! We recommend to adjust the back support vertically to the driving surface. – Otherwise increased danger of tilting!

Swivel-away push handles code 141

The pushing handles (1) can be swivelled down by 90° (2).

Swivelling down the push handles

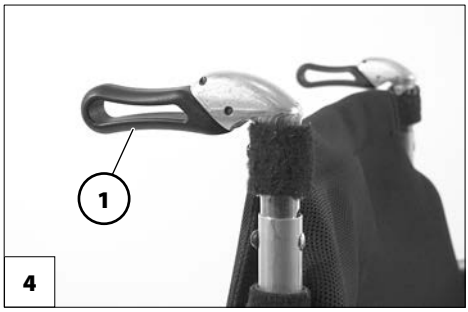
Therefore swivel the push handle (1) inward and down with one hand by 90° [2].

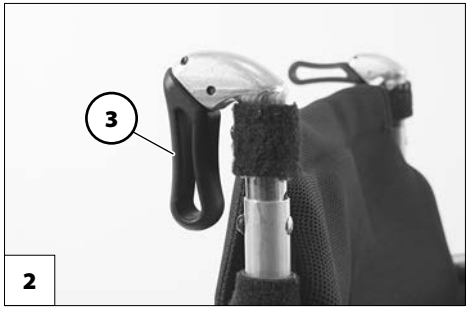
Swivelling up the push handles

For this swivel the pushing handle (3) inward and up by 90° with one hand [4].

Attention:

! Danger of jamming the fingers between pushing handle and back support when swivelling!



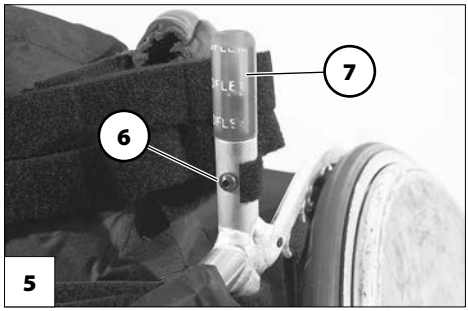


Flexible back tube end

The flexibility of the back tube ends (7) can be adjusted.

Adjusting the flexibility

1. Therefore remove the protective corner cushion (velcro) [5].
2. Then dismantle the attachment screw (6) and pull out the flexible end of the back tube (7).
3. Afterwards slide the inner bolt according to the desired flexibility and reassemble the flexible back tube end (5).
4. Reattach the protective corner cushion.



SEAT

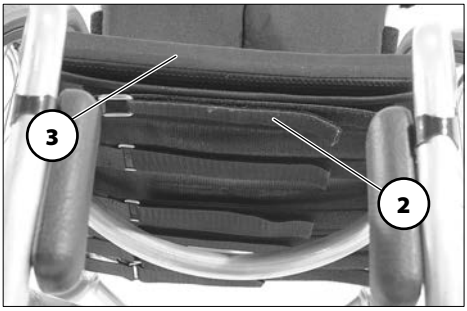
Attention:

! Before any actions on the seat the wheelchair is to be secured against unintentional rolling motions.

☞ Therefore observe chapter *Brake* on page 10.

Seat belt

The seat strap (1) is screwed onto the seat tubes or alternatively wound around the seat tubes with velcro straps.



Adjusting the strap seat

The adjustable seat strap is adjustable through a velcro strap, the so called spanning straps (2).

The seat cushion (3) is placed over it and attached with the velcro strap.

☞ **Note:**
Adjustment is carried out from the back to the front.

Attention:

! The overlapping of the Velcro fastener has to be at least 10 cm!

WHEELS

Drive wheels

The drive wheels are on a quick release axle [1].

☞ **Note:**
The air pressure value for the tyres of the wheelchair can be read in the *Technical data* on page 44 or details on both sides of the tyre cover.

☞ If the drive wheels has too much sideward lag or the quick release axle does not engage, contact your specialist dealer immediately for repair.

☞ No person may be seated in the wheelchair during assembly or removal. The wheelchair should stand on a level and firm surface. Before starting the disassembly work, support the frame to prevent the wheelchair from tipping over and secure it to prevent an unwanted movement or tipping over.

Quick release axle

The driving wheels can be removed and reassembled without any tools.

First press the locking button (2) of the quick release axle in the center of the hub.

Afterwards remove or attach the drive wheel.

Attention:
! After inserting the drive wheel the locking button (2) must stick a couple of millimetres out of the wheel nut.

☞ Herefore observe the Safety and general handling instructions < *Mechanical and muscle powered wheelchairs* > chapter < *Removable drive wheels* >.

Quick release device

The driving wheels can be removed and re-assembled without any tools.

For this swivel the clamping lever (1) downward [2].

Afterwards remove or insert the drive wheel with or without the quick release adapter (3).

Attention:

! After inserting the drive wheel with or without the quick release adapter (3) pull the clamping lever up as far as possible (1).

Wheel axle Code 4951 / 4952

The wheel axle ø 25 mm (firmly connected with the wheel hub) is now locked into place by the quick release device.

Wheel axle adapter

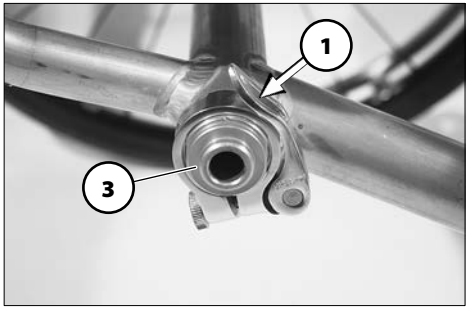
The wheel axle adapter (3) for the quick release axle can be pulled out separately or together with the drive wheel (2).

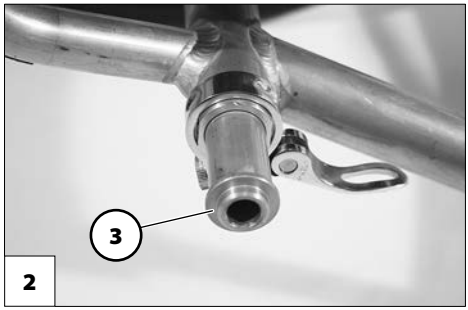
First pull out the drive wheel.

Afterwards this swivel the clamping lever downward (2).

Pull out or insert the axle adapter (3).

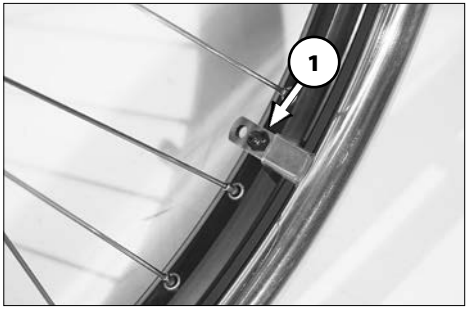
☞ After inserting the axle adapter (3) pull the clamping lever up as far as possible (1).





Handrims

All handrims are designed for a distance to the driving wheel of 15 mm (1), standard setting, and 25 mm.



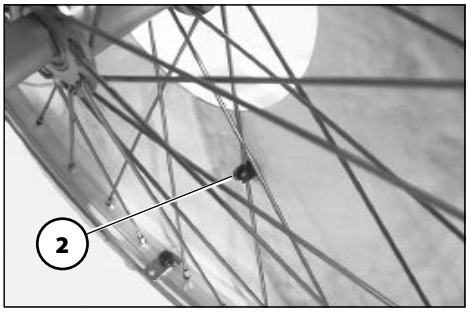
Attention:

! Replacement of handrims or modification of handrim distances should always be carried out by your specialist workshop.

Hand and spoke guard

The hand and spoke guard prevents injuries to the hands occurring by jamming in the turning spokes of the wheels, as well as damage to the spokes.

The spoke guard is attached to the spokes with three clips (2).



Attention:

! Exchanging or replacing of the hand and spoke guard is to be done by the specialist dealer.

Anti-tilting castor

The anti-tilting castor (1) can be height adjusted into one other position.

Attention:

! Height adjustment of the anti-tilting castors should be carried out by the specialist dealer.

Adjusting the height of the anti-tilting castors

1. If necessary remove the protection cushion (2).

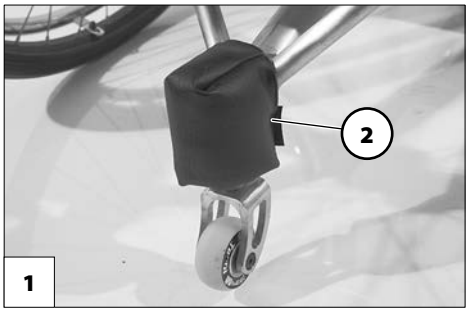
   ☞ For this open the velcro strap.

2. Remove the cover cap of the castor stem.

3. Dismantle the tension screw in the castor stem and pull the anti-tilting castor out of the castor stem.

4. For less ground clearance of the anti-tip castor, place a washer onto the ball bearings before inserting the swivelling axle.

5. Afterwards remount the tension screw in the castor stem.



Flat tyre

If a flat tyre occurs to the air filled tyres due to puncture by sharp objects such as nails, screws, glass splinters, etc. the damage should be eliminated by repairing (mending the inner tube) or replacing the inner tube.

Attention:

! Sitting in the wheelchair during a wheel change is not permitted. The wheelchair must stand on a level and firm surface. Before starting the disassembly work, support the frame to prevent the wheelchair from tipping over and secure it to prevent an unwanted movement or tipping over.

Changing the tyres

☞ **Note:**
Always change tyres in pairs. – Differently worn tyres can impair the straight-on travel of the wheelchair.

Attention:

! Before tyre repair, open the pneumatic valve and vent any remaining compressed air in the inner tube.

☞ **Note:**
The air pressure for the tyres is shown on both sides of the tyre and in the chapter *Technical data* on page 44.

Tyre change of the drive wheels

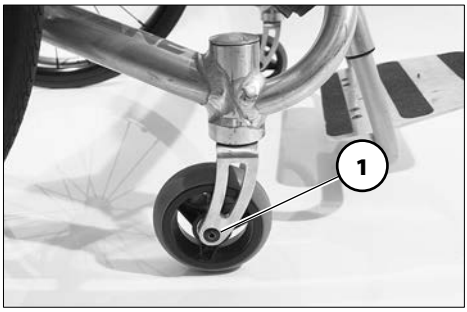
Attention:

! Ensure that the tyre cover is always removed and reinstalled with the appropriate tyre levers (bicycle accessories).

- Never use screw drivers or other pointed /sharp edged objects as levers!

Replacement of the steering wheels

Before replacement or repair the steering wheel axle (1) is to be disassembled.



☞ **Note:**
Always replace the steering wheels in pairs.

☞ Take note of the arrangement of all sleeves and washers used.

LOADING AND TRANSPORTATION

Do not use the leg supports, arm supports or accessory parts in order to lift the wheelchair!

Attention:
! Before lifting, the wheelchair is to be secured against unintentional rolling motions!

Loading

If necessary the wheelchair can be loaded with the aid of ramps or lifting platforms.

☞ **Note:**
Observe document Safety and general handling instructions < *Mechanical and muscle powered wheelchairs* > chapter < *driving on ramps and lifting platforms* >.

Transport security

The wheelchair is to be secured solely through the frame tubes (1).

☞ The procedure for securing the wheelchair can be read in the document Safety and general handling instructions < *Mechanical and muscle powered wheelchairs* > chapter < *Transport in motor vehicles or conveyors* >.

MAINTENANCE

An incorrect or neglected cleaning and maintenance of the wheelchair results in a limitation of the product liability.

Maintenance

The following maintenance Instruction gives you a guide for carrying out the maintenance work.

☞ They do not give information about the actual extent of work required on the wheelchair.

Maintenance schedule

WHEN	WHAT	REMARK
Before starting out	**General** Test for faultless operation.	Carry out test yourself or with a helper.
Before starting out	**Test brakes for faultless operation** Activate brake lever to the limit.	Carry out test yourself or with a helper. The locked wheels should not be able to turn under operating conditions. If they can still turn, the brakes must be repaired by an authorised specialist workshop.
Before starting out	**Check pressure brake for wear** Move brake lever to the side	Carry out tests yourself or have a helper do it. If you notice any increasing slackness on the brake lever take the wheelchair to your specialist workshop immediately for repairs. – Danger of accident!
Before starting out	**Check the back tubes and frame tubes for damages**	Carry out the test yourself or by a helper. If deformations or cracks occur in the welding seams, contact a specialist workshop immediately for repairs. – Danger of accident!
Every 2 weeks (depending on distance covered)	**Check air pressure of the tyres** Tyre filling pressure: ☞ View *Technical data* on page 44.	Carry out test yourself or with a helper. Use a tyre gauge.

WHEN	WHAT	REMARK
Every 8 weeks (depending on distance covered)	**Check tyre profile** Minimum tread = 1 mm	Carry out visual check yourself. If the tyre profile is worn down or if the tyre is damaged, consult a specialist workshop for repairs.
Every 8 weeks (depending on frequency of use)	**Lubricate the following components with a few drops of oil** – Moving parts of the locking mechanism. – Brake lever bearings.	Do it yourself or with the aid of a helper. Components must be free from used oil residues before lubrication. Please ensure that excess oil does not contaminate the environment (e.g. your clothing).
Every 8 weeks (depending on frequency of use)	**Check all screw connections for secure fit**	Carry out test yourself or with a helper.
Every 6 months (depending on frequency of use)	**Check** – Cleanness. – General condition.	 See Care. See Repairs.
Manufacturer recommendation: Every 12 months (depending on frequency of use)	Safety inspection – Vehicle	To be carried out by the specialist dealer.

SERVICE WORK

Before beginning with the service work check the general condition of the wheelchair.

☞ During the disassembly of parts watch for the assembly sequence of small parts as for example different distancers, washers, etc. for later reassembly.

General

Foreword

This maintenance and service section is intended for the specialist dealer and describes all adaptations and adjustments as well as the required service, maintenance, repair and replacement jobs.

☞ This maintenance and service section is supplemented by the following documents:

– the model dependent operating manual,
(an operating manual is supplied with each vehicle),

– Safety and general handling instructions < *Mechanical and muscle powered wheelchairs* >,
(a brochure is supplied with each vehicle),

– the model dependent spare parts list,
(the required spare parts list can be obtained through the specialist dealer access on our website).

All required documents as well as additional information to our products are located on our website under:

< *www.meyra.com* >.

Requirements concerning workshop personnel

Special knowledge is required to carry out the maintenance and service work described in this maintenance and service manual and may therefore only be carried out by educated qualified personnel.

☞ We therefore offer vehicle specific courses that provide the specialised personnel with the required qualification.

Attention:

! During all corresponding work there is always a danger of jamming or skin abrasions!

- Knowledge of this maintenance and service section as well as the supplementing documents (view chapter foreword) is mandatory for the correct and safe execution of the work required on the wheelchair.

☞ The document, especially the chapter *Safety information* on page 35, must therefore be read carefully and observed by all persons, that are assigned to work on the wheelchair.

Customer support

Technical questions will gladly be answered by your national Meyra distribution partner.

Information to maintenance and service work

☞ Every wheelchair should undergo inspection once a year.
– The inspection increases the safety and extends the life span of the wheelchair.

☞ For highly strained wheelchairs for example in case of:

  – extreme strain,
  – user still growing,
  – users with changing disease patterns,

  it is recommended to have the wheelchair checked, maintained and if required adjusted semi-annually.

Only original spare parts are to be used for all maintenance and service.

☞ Before beginning with the service work check the general condition of the wheelchair.

☞ All screwed connections, if not otherwise noted, tightened according to table *Torque according to DIN for screwed connections* on page 42.

☞ The maintenance schedule (Checklist) should serve as a master for copying.
  – Maintenance schedules that have been filled out are to be kept on file and a copy handed to the customer!

Safety information

☞ Wear suitable clothing during service-jobs as well as gloves and protective glasses when required.
– Danger of injuries caused by inappropriate work clothes.

☞ Secure the product against unintentional rolling motions, tilting over or falling down e. g. from a mounting rack.
– Damages due to a not secured wheelchair.

☞ Clean/disinfect the product before inspection.
☞ If necessary, observe the care instructions and product specific inspection instructions included in the corresponding operating manual as well as the safety and general handling instructions < *Mechanical and muscle powered wheelchairs* >.
– Damages due to neglected cleaning.

☞ Keep your workspace clean and only use clean cloths.
– Damages caused by shavings and dirt particles.

☞ Use only suitable tools.
☞ View chapter *Required tools and aids* on page 36.
– Damages caused by the use of incorrect tools.

☞ Replace loose screwed connections with thread safety with the respective nut or screw and new thread safety.
☞ If new screws or nuts with thread safety not be available, apply liquid thread safety compound with me-

dium hardness e. g. Loctite® 241 or Euro Lock A24.20.

– Damages caused by loose screwed connections.

Storage

Dismantled parts are to be placed resp. stored safely and protected as well as sorted by commission.

Required tools and aids

For adjustments and maintenance we recommend the use of high quality tools.

☞ High quality tools can prevent for example damages to the surface of the frame as well as minor injuries to the hand.

The tools required most frequently are:

– Socket wrench
– Open-end or ring spanner
– Hexagon socket spanner
– Phillips screwdriver
– Slot screw driver

Wheelchair identification

For a definite wheelchair identification in case you have questions, or for spare parts orders, the following data can be read off of the type plate:

☞ view sample-type plate [1]

1. The model description (in the field Type resp. Typ)
2. The serial number (beside the field SN)

Term definitions

Here you will find explanations to the term used in this manual.

Adaptation and adjustment jobs

Adaptation and adjustment jobs are described in the respective chapters of this operating manual..

Maintenance

Wheelchairs are *medical devices of the class I-MDD*. As a medical device they underlie the operator provision and are to be maintained regularly. We recommend at least once a year. The work done and replacement of essential components is to be documented.

For the documentation in the course of the maintenance the itemised maintenance checklist can be used.

The maintenance checklist is intended for copying. The filled in maintenance checklists are to be added to the documentation.

With the signature the undersigned declares to have duly performed the measured declared in the maintenance checklist.

Reinstallment

Before reimplementation the wheelchair is to undergo a complete inspection.

- ☞ The hygienic measures required for reinstallment are to be carried out in correspondence with the validated hygienic plan.
- ☞ A revision/renovation or particular amendment to the vehicle, without the use of original spare parts, may mean a renewed placing of the vehicle into the market.
- ☞ This will further entail that new conformity assessments and tests might need to be conducted.

Designation:	Maintenance/Inspection date:
SN-No. (Serial-no.):	Maintenance/Inspection done by:
Year of construction:	Signature:

Stamp of the executing workshop:

Checklist of the annual maintenance jobs		
		Preparation for visual check
❑		Removed seat and back support elements, leg supports, arm support units. If necessary, cleaned the vehicle or the modules before the visual check.
		Visual inspection
❑		Checked frame, modules, attachments and accessories for damages, corrosion as well as scratches in the coating (e. g. frame, crossbrace, back support tubes and handrims).
❑		All safety nuts are tightened into the stop.
❑		All screwed and riveted connections are free of burrs.
❑		Check seat and back cover for creaseless tension in open position.
❑		Checked whether back tubes resp. push handles are lined up.
❑		Visually checked arm support, arm support pads, footboards, welding and soldering seams.
		General function inspection
❑		Checked firm seat of the handgrips.
❑		Checked firm seat of all attachments/elements.
❑		Checked easy running of folding/unfolding mechanism of the wheelchair.
❑		Checked leg supports that there is no lag and the screwed connections are secure.
❑		The tightening torque of the footplates is greater than 10 Nm.
❑		Checked folding function of the footboard. – The footplates lock into place perfectly. – The footboard remains in every designated position.
		Function inspection of the chassis
❑		The wheel attachment screws are tightened according to the torque table acc. to DIN for screwed connections.

Checklist of the annual maintenance jobs		
❑		If quick release axles are used the axle bushing is tightened with a torque of 30-35 Nm.
❑		Tyres of drive wheels are checked for perfect seat on the wheel hub.
❑		Checked the space between wheel and clothes guard.
❑		Quick release wheels checked for axial clearance and transition.
❑		Checked the firm seat of the spokes and condition of the wheel spindle.
❑		Checked concentric run-out for lateral/vertical run-out of the wheels < 2 mm.
❑		On pneumatic tyres: Checked air pressure according to the indication on the tyre.
❑		Checked function of the quick release axles.
❑		Wear of axle bushing: The axles of the drive wheels do not show radial run-out and run easily.
❑		Checked the fastening of the steering and drive wheels.
❑		Wheel forks are not bent or torn.
❑		Axle bearing of the steering wheel forks checked for easy running.
❑		Checked free swivelling (360°) of both steering wheels. – No collision with the footplate/-board or drive wheel (the gap is > 2 cm).
❑		Check straight running course through pushing. The steering wheels may not flutter.
❑		If support castors exist: The support castors must be mounted so that they do not flutter and be easy to swivel in- or outward.
		Tyres and rims
❑		Tread pattern depth of the tyres is greater than 1.5 mm.
❑		The tyres are free of damages or alien objects and are not porous.
❑		On pneumatic tyres: Checked air pressure according to the indication on the tyre.
❑		Hubs do not show tears or raptures.

Checklist of the annual maintenance jobs		
		Brakes
❑		Checked the function of the pressure brakes.
❑		If equipped with light brakes the drive wheel may not be turned through hand pressure on the handrim when the brake is locked.
		Oil/Grease
❑		Rotating points and bearing points of control levers and moving parts.
❑		Bowden cables.
		Final check
❑		Checked lighting equipment.
❑		Conducted a braking/steering and driving test. – No audible grinding sounds, both steering wheels run easily, braking function okay.
❑		Conducted a general function test of the mechanical adjustment units.
❑		Inspection certificate filled out in the operating manual.

DIN norms and guidelines

The torque according to DIN for screwed connections can be extracted from the table at the side.

Tyres

Filling pressure front: .....
min. 2.5 / max. 3.5 bar (35 psi)

Filling pressure rear:.....
min. 2.5 / max. 3.5 bar (35 psi)

Minimal profile depth acc. to STVO:.....
1.5 mm

Items with order number

Loctite 243 (medium hard) .....
205 638 800

Torque according to DIN for screwed connections

Thread diameter	Tightening torque
M 4	3 Nm
M 5	5 Nm
M 6	10 Nm
M 8	25 Nm
M 10	50 Nm
M 12	85 Nm

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www.meyra.de

INSPECTION CERTIFICATE

Vehicle data:

Model:

Delivery note no.:

Serial-no.(SN):

Recommended safety inspection 1st year (at least every 12 months)

Stamp of specialist dealer:

Signature: _____

Place, date: _____

_____

Next safety inspection in 12 months

Date: _____

Recommended safety inspection 2nd year (at least every 12 months)

Stamp of specialist dealer:

Signature: _____

Place, date: _____

_____

Next safety inspection in 12 months

Date: _____

Recommended safety inspection 3rd year (at least every 12 months)

Stamp of specialist dealer:

Signature: _____

Place, date: _____

_____

Next safety inspection in 12 months

Date: _____

Recommended safety inspection 4th year (at least every 12 months)

Stamp of specialist dealer:

Signature: _____

Place, date: _____

_____

Next safety inspection in 12 months

Date: _____

Recommended safety inspection 5th year (at least every 12 months)

Stamp of specialist dealer:

Signature: _____

Place, date: _____

_____

Next safety inspection in 12 months

Date: _____

TECHNICAL DATA

All technically ruled specifications within the following tables correspond to the individually manufactured model.
Dimension tolerance +/-1.5 cm, +/-2°

Short form of wheelchair dimensions:
SW = Seat width

Model: ..... Hurricane 1.880
Type plate: ..... at the frame tube

Life span / operation span: ..... 5 years

Dimensions

Frame length: ..... individual manufacture
min. frame length: ..... 500 mm

Seat height (without seat cushion up to upper edge of the seat frame)

min. rear seat height: ..... 250 mm

Width: ..... SW + per °(degree) wheel camber 20 mm
Seat cushion thickness: ..... 30 / 50 / 80 / 100 mm

Wheels

Steering wheel: ..... solid rubber

Driving wheel
Ø 61 cm (24") / Ø 66 cm (26") High-pressure tyres: ..... 8 bar (116 psi)
Ø 61 cm (24") / Ø 66 cm (26") Indoor-sport tyres: ..... 11 bar (160 psi)
Ø 63.5 cm (25") / Ø 71 cm (28") Indoor-sport tyres: ..... 16 bar (232 psi)

Temperatures

Ambient temperature: ..... -20 °C to +40 °C
Storage temperature: ..... -10 °C to +40 °C

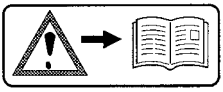
Permitted inclination/slopes

Permitted inclination: ..... 4.5° (8 %)
Permitted slopes: ..... 4.5° (8 %)
Stability against tipping over: ..... 4.5° (8 %)

Weights

maximum user weight: ..... 120 kg
maximum additional load: ..... 10 kg

MEANING OF THE LABELS ON THE WHEELCHAIR



Attention!
Read the operating manuals and other provided documentation.

Meaning of the symbols on the type plate

Manufacturer

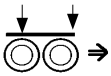
Order number

Serial number

Production date (Year – Calendar week)

Permitted user weight

max. permissible total weight



Permitted axle weights

Max. permissible rising gradient

Max. permissible falling gradient

max. ... km/h Permitted maximum speed

The product is approved as a seat within a motor vehicle

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

NOTES

NOTES

WARRANTY / GUARANTEE

We accept legal liability for this product within the scope of or general terms and conditions and warranty and in certain cases other verbal resp. agreed upon guarantees. For warranty and guarantee demands please contact your specialist dealer with following Warranty/Guarantee section and the there included information on model description, delivery note number with delivery date and serial number (SN).

The serial number (SN) can be read off of the type plate.

Precondition for the acceptance of liability in any case is the intended use of the product, the use of original spare parts by authorised dealers as well as maintenance and inspections in regular intervals.

Guaranty is not granted for surface damages, tyres of the wheels, damages due to loosened screws or nuts as well as worn out attachment holes due to frequent assembly work.

Furthermore, damage to the drive and electronics caused by improper cleaning using steam cleaning equipment or the deliberate or accidental flooding of the components are also excluded.

Interferences through radiation sources such as mobile phones with high transmission power, HiFi-equipment and other extreme interference radiators outside of norm specifications cannot be declared as warranty or guarantee claims.

Attention:

! Failure to observe the instructions in the operating manual, improperly carried out maintenance work and, especially, technical changes and additions (add-ons) carried out without our prior consent will lead to a general loss of guarantee and product liability.

☞ **Note:**
This operating manual as a part of the product is to be handed out in case of a change of owner.

We reserve the right to make technical improvements.

CE The product conforms with the EC Directive 93/42/EEC (MDD) for medical products.

Warrantee / Guarantee section

Please fill out! Copy if necessary and send the copy to the specialist dealer.

Warranty / Guarantee

Model designation:

Delivery note no.:

SN (view type plate):

Date of delivery:

Stamp of the specialist dealer:

Inspection certificate for transfer

Vehicle data:

Serial-no.(SN):

Model:

Delivery note no.:

Stamp of specialist dealer:

Signature: _____

Place, date: _____

Next safety inspection in 12 months

Date: _____

Your specialist dealer

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MEYRA 205 336 401 (Status: 2015-07)