



WOLTURNUS



User's Manual for the W5 jr. and Gitano jr. Wheelchair



Wolturnus A/S recommends that you read this manual before using the wheelchair.

User's manual for W5 jr. and Gitano jr.

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1 Introduction

1.1 Foreword

This user manual provides users and helpers with essential information about the design, functions, use and maintenance of the Wolturnus W5 Junior and Gitano Junior wheelchair for kids, throughout the rest of this manual these models will be described as the wheelchair. The manual contains the information necessary to ensure safe use of the wheelchair. It contains troubleshooting information with, where applicable, solutions.

The wheelchair is an easy-propulsion active wheelchair in high-strength aluminium. The wheelchair design makes it as easy as possible for the user to operate the chair independently. The wheelchair is custom-built according to the user's instructions. This ensures that the wheelchair precisely meets the individual user's requirements. Because the back can be folded and both the rear wheel and side panels removed, the wheelchair is easy to transport, including in ordinary cars. The wheelchair is ideal for users who want to have an active daily life, indoors and outdoors.

The instructions in this manual are essential for safe and correct use of the wheelchair. Before starting to use it, it is important that both the user and helper read these instructions carefully, paying special attention to the safety instructions. The information will also ensure that the user gets full advantage of the wheelchair's features and functions. Keep this user manual throughout the lifetime of the wheelchair: it contains information that can answer future questions and it contains guidelines for adjusting and adapting the chair.

This user manual has been produced in accordance with DS EN82079-1 'Preparation of instructions for use - Structuring, content and presentation'. It is divided into sections. The heading on each page contains the title of the overall section. The foot of each page displays the page number, year, and site of origin of the user manual. It also includes the wheelchair model.

1.2. Intended use

The wheelchair is designed for individual mobility, indoors and outdoors. It is only suitable for people who are unable to walk or have a mobility problem. Only equipment that is specified in this user manual may be used with this wheelchair, and vice versa.

Wolturnus A/S does not guarantee this product if it is used with accessories or products from manufacturers other than those specified as part of the modular system.

Use of the wheelchair for any purpose other than the aforementioned will be considered incorrect. In the event of incorrect use, the user - i.e. not the manufacturer - is liable for resulting damage to persons or property.

The wheelchair may only be used by practised users. For personal protection and in order to ensure that the wheelchair is used safely and correctly, it is a requirement that the user and helpers receive training and instruction.

The wheelchair can only be used safely if it is used correctly in accordance with the information provided in this user manual. The user bears final responsibility for accident-free use.

WARNING!**Risk of injury with incorrect use**

To avoid the risk of getting fingers caught in the rear wheel spokes or wheel locks, and to avoid the risk of the chair tipping, children should not play with the wheelchair.

1.3 Usage

The wheelchair's modular design and versatility make it suitable for users who have difficulty walking or who have a mobility handicap as a result of:

- Paralysis
- Loss of limbs (leg amputation)
- Limb defects or deformities
- Damaged or defective limbs
- Other illnesses

When adapting the wheelchair for the user, the following should be taken into account:

- Body height and weight (max. load 70 kg.)
- Physical and mental constitution
- Age
- Residential circumstances
- Surroundings

1.4 Service**INFORMATION**

The wheelchair service and repairs may only be carried out by authorised personnel trained by Wolturnus A/S. In the event of problems, please contact Wolturnus A/S.

In the event of questions or problems that cannot be resolved using this user manual, please contact Wolturnus A/S customer service at (+45) 9671 7170.

Wolturnus A/S strives to provide full assistance to its customers in every respect and thus to ensure total satisfaction with the wheelchair. Wolturnus A/S contact information and a list of service locations can be found in section 13.

In the event that the wheelchair requires repairs at Wolturnus A/S for an extended period of time, a courtesy wheelchair can be borrowed for that period. Please contact Wolturnus A/S for further information.

1.5 CE compliance

The wheelchair meets the requirements of European Commission Directive 93/42/EEC for medical devices. The product is classified as Class 1 on the basis of the classification criteria for medical devices in accordance with IX of the directive. Wolturnus A/S has therefore, as manufacturer with sole liability, made a declaration of conformity in accordance with appendix VII of the directive.

1.6 Liability

Wolturnus A/S' warranty applies only if the product is used in accordance with the specified circumstances, purpose and instructions. The frame is covered by a 5-year warranty. Other parts manufactured by Wolturnus are covered by a 2-year warranty. Parts that are designed and manufactured by a third-party manufacturer and mounted on a Wolturnus wheelchair are covered by a Wolturnus A/S warranty that is equal to the warranty provided to Wolturnus A/S by the third-party manufacturer.

Wolturnus A/S is not liable for injury or damage caused by:

- Components and parts that are not authorised by Wolturnus A/S.
- Alteration to the original surface treatment.
- Repairs or alterations to the wheelchair that are not carried out by Wolturnus A/S. All warranty repairs will be carried out by Wolturnus A/S.
- Incorrect use of the wheelchair (e.g. to play basketball or rugby), or loads that exceed the construction or specified maximum for the wheelchair (in accordance with directive 93/42/EEC for medical devices).
- Circumstances in which the wheelchair is used by any party other than the original owner/user.
- Circumstances involving bad weather or dangerous situations, or in general all types of predictable negligence.
- Lack of maintenance.
- Cleaning with agents that contain acid or alkaline products, with high-pressure equipment or similar.

To keep updated about this product e.g. regarding new features, safety notice, product recalls check www.wolturnus.dk. Contact information and overview concerning all of Wolturnus's products are available at the website - or by contacting Wolturnus A/S customer service at (+45) 9671 7170.

1.7 Returns

In the event that the wheelchair has to be returned to the supplier or to Wolturnus A/S, e.g. for repairs, it should be transported in its original packaging for optimum protection. Wolturnus A/S therefore recommends that the original packaging is retained throughout the lifetime of the wheelchair.

2 Safety

2.1 Symbols

WARNING!

Warning about risk of serious accident or injury

CAUTION!

Warning about risk of accident or injury

NOTICE

Warning about risk of technical damage

INFORMATION

Operational and service information

2.2 Standards and directives

All safety information in this user manual is based on applicable national laws and regulations in the EU. For other countries, a declaration of conformity with applicable laws and national regulations is required.

In addition to the safety instructions contained in this user manual, the user must be familiar with and must comply with applicable regulations from professional associations, on accident prevention and on environmental protection. All information contained in this user manual must be complied with at all times without limitation. The wheelchair is constructed in accordance with applicable regulations. The wheelchair safety level is approved by CE certification and a declaration of conformity.

2.3 General safety instructions

- The active wheelchair must only be used correctly.
- The active wheelchair must only be used by trained users and must not be used by any other person than the user.
- The active wheelchair must only be used to transport one person.
- All safety instructions in this user manual and all other relevant documentation must be kept and complied with throughout the lifetime of the chair. The user manual must always be available to the user.
- The back and seat upholstery is inflammable, but can be ignited. Extreme care should therefore be taken when in the vicinity of flammable items and fire, including, for example, lighted cigarettes.
- To avoid discomfort when using the chair, damaged back or seat upholstery should be replaced as soon as possible.
- Do not force the chair over obstacles when using it on hills and slopes.
- The wheelchair must not be used on stairs.
- Avoid getting in or out of the chair while on hills or a slopes.
- The hip strap (accessories) gives the user extra stability. It must never be used as part of the strap attachment system when securing the chair for transport in a vehicle.
- Do not force the wheelchair along on hills or slopes of greater than 7°.
- Do not park on hills or slopes of greater than 7°, not even with the brake pad activated.

2.4 Safety requirements for transport, assembly and storage

- Only suitable lifting mechanisms may be used when transporting the wheelchair.
- The wheel locks must be applied when transporting with a lifting platform in situations where the chair must be stationary, e.g. in lifts, buses, trains etc.
- The wheelchair must, to the degree possible, be placed in the middle of the platform and all components, e.g. the anti-tip device, must be clear of any area where there is a risk of them being caught during transport.
- When adjusting and adapting the chair, all attachment features, e.g. screws and nuts, must be fastened according to instructions.
- For transport in vehicles we recommend that, whenever possible, the user is transferred to the vehicle's own seats and uses the vehicle's own safety belts. If this is not possible, and the user therefore must remain in the chair, there must be an approved, mounted docking system in the vehicle.

2.5 Safety requirements during use









- The user and helpers must always ensure that the chair and its safety features are in proper and safe condition before using the chair.
- The active wheelchair must be inspected by a Wolturnus-authorized specialist at least once every year in order to ensure that the chair is in proper working order and safe to use.
- The chair must immediately cease to be used if any feature is defective or not operational or if any other circumstance arises which could lead to injury.
- Before starting to use the active wheelchair, all mechanical adjustments (positioning the seat, accessories, etc.) must be carried out in accordance with the user's individual requirements and abilities. These adjustments may only be carried out by Wolturnus-authorized specialists.
- 70 kg is the maximum load for the active wheelchair. It must not be exceeded.
- The wheelchair tyres must be inspected visually before use to ensure that there is sufficient tread depth and correct tyre pressure. The correct pressure is printed on the tyre.
- When used on public roads, the user must obey applicable traffic rules.
- The wheelchair should not be used on slippery surfaces (e.g. ice) or on very rough terrain (e.g. on gravel or small stones).
- When getting in and out of the wheelchair, the user's full weight should not be placed on the footrest or armrests. These cannot bear full body weight.
- Only change direction at reduced speed.
- The wheelchair must only be lifted by gripping the frame parts. Do not grip the footrest or armrests to lift the chair.
- The wheelchair must not be exposed to extreme temperatures, to high humidity or to environments with chlorine (e.g. in saunas or at swimming pools).
- The wheelchair's surface temperature can raise if it is exposed to high heat, e.g. in strong sunlight for an extended period of time. There is also a risk of too low a surface temperature in the event of extreme cold.
- The anti-tip device should be used when travelling on uneven terrain or where there is a hurdle, e.g. on slopes. New users are advised to always use the anti-tip device.
- Never place fingers between the rear wheel spokes or between the rear wheel and the wheel locks. Caution is advised when travelling through narrow passages.

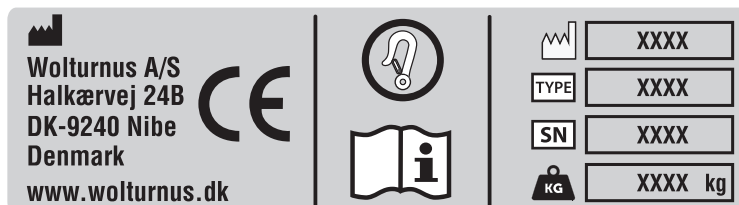
2.6 User requirements

- Before starting to use the wheelchair, the user and any helpers must read the user manual thoroughly and be familiar with its contents.
- The active wheelchair must only be used by trained users. To ensure this, the user and any helpers will receive instruction in use of the chair from Wolturnus-authorized specialists.

2.7 Type labels

A type label is attached to the wheelchair. The type label includes the following information:

	Manufacturer and production site
	The wheelchairs year of production
	The model or the type name of wheelchair
	The serial number of the wheelchair
	The maximum allowed weight of the user
	The wheelchair is not intended to be used as a seat in a motor vehicle
	The wheelchair is intended to be used as seat in a motor vehicle
	Read the user's manual before using the wheelchair



The type label is placed on the cross tube under the seat facing forward as shown on image 1.





Image 1 Location of anti-tip warnings and model labels

3 Product description

The wheelchair is a robust active wheelchair that is made to suit your measurements and individual requirements. The wheelchair is suitable for experienced and active users who know their own requirements. It is suitable for users who need to continually adjust the seating position. The wheelchair is available with a fully-welded back and back axle and as an adjustable model.

A fully-welded the wheelchair has no moving parts. It is extremely rigid and robust, which means that all your energy is harnessed for propulsion. The adjustable the wheelchair is designed to meet life's changing challenges. For example, options include an adjustable back axle; angle and height-adjustable back; angle and height-adjustable footrests; and detachable side panels. All of these make it a wheelchair that is easy to adjust and easy to stow in a car.

Because the wheelchair has a modular design, additional equipment and accessories, e.g. a Wing Back support system, can be purchased and retrofitted. A range of accessories is described in section 7. The entire range of accessories, spare parts and additional equipment can be seen at the Wolturnus A/S website www.wolturnus.dk/en/products/.



Image 2 The W5 jr. and Girano jr.

4 Delivery and preparation for use

4.1 Delivery

Delivery covers:

- The wheelchair with main components
- User manual
- Selected accessories (Accessories range: see section 7)

INFORMATION

The range of accessories are determined by the product configuration that the user chooses when ordering the wheelchair.

WARNING!

The wheelchair may tip over. Wolturnus recommends to use the anti-tip device at all times.

Wolturnus A/S delivers the wheelchair ready for use. All configurations that are part of the order have been made or will be made upon delivery by the supplier or a consultant. The wheelchair is adapted to meet the user's personal wishes and requirements.

The wheelchair's functions can be tested by following the instructions in section 6.

Troubleshooting: see section 9.

4.2 Preparation for use

Before starting to use the wheelchair, it must be inspected to ensure that it is complete (image 3) and that all functions are in proper working order. Wolturnus A/S delivers the wheelchair ready for use.

Main components (image 3):

1. Frame with back support and seat
2. Rear wheel
3. Castor
4. Side panels with/without armrest
5. Wheel locks
6. Footrest
7. Anti-tip device
8. Push handle



Image 3 Main components

5 Transport and storage

5.1 Transport

For transport or storage, the rear wheels can be removed and the wheelchair folded. This makes it easy to handle and saves space:

- Remove the side panels or fold them down into the seat, depending on mounting method.
- Tip the back into the folded position, if the wheelchair is with folding back.
- Remove the rear wheels by pressing the Quick-Release axle in the wheel nave and pulling the wheel off.

The wheelchair should be kept in a dry place and not exposed to damp. For long-term storage, the wheelchair should be covered to protect it from dust.



Image 4 Remove sidepanels



Image 5 Tip back into horizontal position



Image 6 Remove the rear wheels



Image 7 Ready for transport or storage

5.2 Transfer

Method of transfer to and from the chair is individual as best suits the user. The most common method is transfer from the side or front.

The following description is based on transfer without third-party help and from one wheelchair to another.

- Place the wheelchair beside and as close to the other seating surface as possible at a 90° angle.
- Apply the wheel locks. When transferring to another wheelchair, apply the wheel locks on both chairs.



Image 8 Place the wheelchair



Image 9 Apply the wheel locks

- Move feet from the footrest and place on the ground.
- Move from the chair to the other seat. The method of actual transfer will vary from user to user. Use the method that works best.



Image 10 Place feet on the floor



Image 11 Transfer from the wheelchair



Image 12 Transfer from the wheelchair



Image 13 Transfer from the wheelchair



Image 14 Transfer from the wheelchair



Image 15 Transfer from the wheelchair

When transferring for the first time and until the user gets used to transferring, it is recommended to have a helper present.

CAUTION!

Risk of damage due to overload.

When getting in and out of the chair, the user must not place full body weight on the footrest or armrests.

CAUTION!

The wheel locks must be applied during transfer.

6 Adjustment and set-up

6.1 Adjustable features

CAUTION!

Risk of accident due to loose screws

After loosening threaded screws, they must be replaced with new screws or secured again with a medium-strength thread paste (e.g. EuroLock A24.20). After making adjustments to the wheelchair, screws and nuts must be tightened correctly.

The wheelchair can be adjusted in various ways. When delivered, the height, width and angle of the seat and the back have been positioned in accordance with the customer's order as received by Wolturnus A/S.

The following can be adjusted by the user:

- Back height, depth and angle
- Seat height, depth and angle
- Armrest and arm cushion
- Balance point position
- Footrest height and angle
- Anti-tip device height
- Wheel lock position
- Change of castor and front fork

6.2 Tools

The following tools (image 16) are necessary for adjustments and settings described in this section:

- 3 mm Allen key
- 4 mm Allen key
- 5 mm Allen key
- 6 mm Allen key
- 8 mm single-head wrench
- 10 mm single-head wrench
- 13 mm single-head wrench
- 19 mm socket wrench
- A bubble level torque wrench
- Measuring tape



Image 16 Tools

NOTICE

Damaged tools or incorrect use of tools can result in injury or in damage to the chair.

6.3 Adjusting back depth and form

The back's form can be adjusted to suit the individual user's requirements for support and balance. The Velcro straps under the back upholstery are used to adjust it.

- Fold up the back of the backrest upholstery so that the Velcro straps are visible (image 17).
- Loosen or tighten individual straps so that the back's form suits the user's requirements (image 18).
- Fold down the back upholstery and secure it to the straps.

Adjustment of the back form and depth greatly affects the benefit the user gets from the chair. Wolturnus A/S recommends that form and depth are initially adjusted with assistance from a Wolturnus A/S consultant or from the user's therapist.



Image 17 Fold the back of the upholstery



Image 18 Loosen or tighten the straps

WARNING!

When the seat and/or back upholstery straps have been adjusted, the wheelchair's point of gravity may have shifted, which may create a risk of backward tipping. Therefore, after adjusting the seat and/or back upholstery, check the point of gravity and, if necessary, adjust it before using the chair. (See section 6.10).

6.4 Adjusting back height (only height-adjustable back)

- The back height can be steplessly adjusted to meet requirements.
- Remove the back upholstery and top.
- Press the spring lock in and either raise or lower the height bar for the back.
- To adjust the height even further, the height bar can be removed and reversed (image 19-20).
- Mount the back upholstery and top again.



Image 19 Press the spring lock in



Image 20 For further height adjustment

6.5 Adjusting seat depth and form

- Remove the seat cushion and the front section of the seat cover (image 21).
- Adjust the Velcro straps on the rear section of the seat cover by tightening or loosening them to meet the user's requirements (image 22).
- Mount the front section of the seat cover and tighten the Velcro strap at the front.
- Mount the seat cushion.



Image 21 Remove the front section



Image 22 Adjust the Velcro straps

6.6 Adjusting balance point with adjustable rear axle

The wheelchair's point of gravity and stability can be changed by moving the rear axle forward or backward. By moving the rear axle and therefore the rear wheels forwards, the load on the castors is lightened. It is therefore easier to tilt the wheelchair up on the rear wheels. Practised users will find this makes the wheelchair easier to manoeuvre. Moving the rear axle backwards makes it harder for the chair to tilt up on the rear wheels. The distance between the castors and the rear wheel is increased, which increases stability during propulsion.

CAUTION!

For safety reasons, the wheelchair is delivered with the rear axle placed far back. New users should not adjust this until they are practised in use of the chair.

CAUTION!

To prevent the wheelchair unintentionally tipping backwards, it is recommended that the user always gets a helper to stand behind the wheelchair while trying out balance point adjustments.

Adjusting the rear axle:

- Use the Quick Release mechanism to remove the rear wheels (image 23).
- Move the wheel locks forward so that they are not in the way when the rear wheels are remounted. After adjusting the rear axle the wheel locks must be adjusted so that they are positioned correctly before use (see section 6.15).
- Use a 5 mm Allen key to loosen the three bolts on the bracket that fastens the rear axle to the frame. Loosen them enough to allow the rear axle with console slide back and forward on the frame (image 24).
- Find the desired position. Use a slide rule or ruler to check that the distance between the rear axle and the back edge is equal on both sides (image 25).
- Use a 5 mm Allen key to tighten the bolt with a torque wrench. (Tension 10 Nm/7,4 ft.lbf/88 in.lbf.)
- Mount the rear wheels and adjust the wheel locks as described in section 6.15 (image 26). Make sure the Quick Release mechanism is locked correctly; it audibly clicks when correctly in place.



Image 23 Remove the rear wheels



Image 24 Loosen the bracket bolts



Image 25 Check with a ruler



Image 26 Mount the rear wheels

6.7 Adjusting footrest height

- Use a 3 mm Allen key and an 8 mm wrench to loosen and remove both nuts at the back of the fore-frame (image 27).
- Remove the Allen key so that the footrest can freely slide within the fore-frame tube.
- Raise or lower the footrest to the desired height, making sure that the holes in the footrest and the fore-frame match. Make sure that the footrest is not lopsided.
- Mount the clamps and nuts and tighten them (Tension 4 Nm/3,0 ft.lbf/35 in.lbf). If tightened too much, the frame could bend (image 28).



Image 27 Remove the nuts and bolts



Image 28 Mount the nuts and bolts

6.8 Adjusting footrest angle

- Use a 4 mm Allen key and 10 mm single-head wrench to loosen the nuts on the bracket underneath the foot plate (image 29).
- Turn the foot plate until it is at the desired angle (image 29).
- Tighten the nuts.



Image 29 Loosen the nuts

6.9 Adjusting foot plate position

- The foot plate itself can be adjusted and moved further back or forward.
- Use a 4 mm Allen key and 10 mm single-head wrench to loosen the bolts on the foot plate, then remove it (image 30).
- Mount it in the second set of foot plate notches.
- The bracket itself can be reversed so that the holes are positioned to the front of the foot brace. The foot plate can then be moved further forward.
- Pull the bracket to the right until the footrest join is visible.
- Push the left section away so that the bracket can be removed (image 31).
- Reverse the bracket and repeat the process in reverse order. Mount the footrest.



Image 30 Reverse the bracket



Image 31 Mount footplate

CAUTION!

Never place full body weight on the footrest.

6.10 Adjusting anti-tip device

When extended, the anti-tip device prevents the wheelchair from tipping backwards. When making adjustments that can affect the balance point and distribution of weight, the anti-tip device should be extended.

- The height of the anti-tip device can be adjusted by loosening the bolts with a 5 mm Allen key (image 38).
- When it is at the correct height, tighten the bolts.

Standard height from floor to anti-tip device wheel: 6 cm (image 32).

- The length of the anti-tip device can be adjusted by loosening the three bolts on the bracket that mounts the device to the back axle (image 33). Be careful not to alter the position of the back axle as this would affect the balance point.
- When the desired length has been attained, tighten the bolts (Tension 10 Nm/7,4 ft.lbf/88 in.lbf.).



Image 32 Adjust the anti-tip device height



Image 33 Adjust the anti-tip device length

CAUTION!

Never use the anti-tip device as a tipping pedal.

If used as a tipping pedal, the anti-tip device's spring function could be damaged. This would make the anti-tip device defective and put the user at risk.

6.11 Adjusting wheel locks

The wheelchair is supplied with push wheel locks as standard. The push wheel locks are activated by pressing forwards and can be operated by the user. The push wheel locks are mounted on the wheelchair frame. Other types of wheel locks are mounted in the same way, so the following adjustment instructions can also be used for them.

If the balance point and therefore the position of the rear wheels is changed, or if the wheel size is changed, the wheel locks must be moved and adjusted at the same time. The wheel locks must be moved forward before changing the balance point or rear wheels. After adjusting the balance point or changing the wheels, the wheel locks must be correctly adjusted.

CAUTION!

Ensure the correct tire pressure.

Ensure the tyres have the correct pressure before using the chair again. The maximum air pressure limit is marked on the side of the tyre. It must always be minimum 3.5 bars (350 kPa) on rear wheels. Like push wheel locks, knee-lever wheel locks are only effective when air pressure is sufficiently high and when they are correctly positioned. (When locked, the brake pad should push the tyre in 5mm (allowing for technical alterations)).

Before adjusting the balance point or changing wheels:

- Use a 5 mm Allen key to loosen the two bolts in the console that fastens the wheel locks to the front-frame (image 34).
- Move the wheel locks forward and lightly tighten the console so that they are not in the way.

After adjusting the balance point or changing wheels:

- Loosen the wheel locks.
- Move them backwards so that the brake pad, when activated, presses sufficiently on the tyre to ensure that the wheelchair is properly locked. As a rule, the brake pad should press the tyre at least 5 mm (image 35).
- Tighten the bolt. Mount the axle and bolts. (Tension 10 Nm/7,4 ft.lbf/88 in.lbf.)

It is important that the left and right wheel locks have the same position. Use a slide rule or measuring tape to check that the wheel locks give the same degree of friction when activated.



Image 34 Loosen the bolts in the console



Image 35 Wheel locks pressing correctly

6.12 Adjusting seat height

Seat height can be adjusted by changing to a larger or smaller rear or front castor.

Both must be changed. If only one is changed, the original seat angle will be altered. If the wheelchair has an adjustable back axle, the height of the back axle can be adjusted and this will adjust the seat height to the rear.

For advice on seat height adjustment, contact your nearest Wolturnus A/S sales consultant or distributor. Contact information: see section 13.

WARNING!

During adjustment of the seat height and/ or angle, the wheelchair's point of gravity may have shifted, which may create a risk of backward tipping. Therefore, after adjusting the back, check the point of gravity and, if necessary, adjust it before using the chair. (See section 6.10).

6.13 Adjusting the mutual distance of the rear wheels

- The distance between the rear wheels can be increased or decreased as required.
- Remove the rear wheels.
- Use a 27 mm single-head wrench to loosen the nut on the back axle bushing (image 36).
- Screw the bushing itself in (narrower distance) or out (wider distance) (image 37).
- Tighten the nut (Tension 50 Nm/7,4 ft.lbf/88 in.lbf.).
- Repeat the process on the opposite side. Make sure that the bushing is screwed in or out by an equal amount on both sides. Make sure to check the brake position before using the wheelchair again



Image 36 Loosen the nut

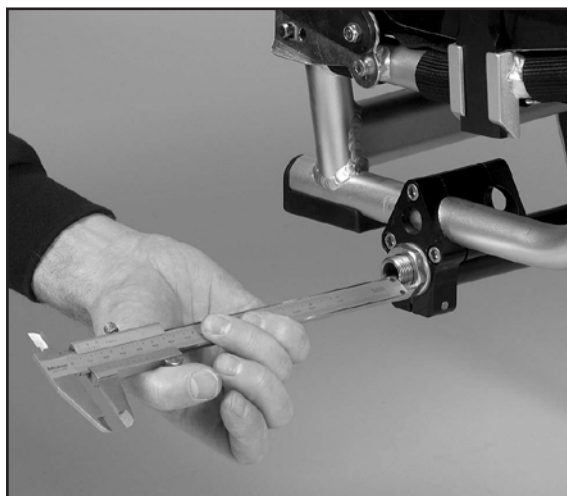


Image 37 Check the distance on both

6.14 Changing castor with front fork

- Carefully loosen the bearing housing cap in the casing with a slotted screwdriver (image 44).
- Use a 19 mm socket wrench to remove the nut (image 38).
- Pull out the fork with castor and push the new one into place (image 39).
- Tighten the nut. Do not tighten the nut too much; it must still be possible to rotate the front fork easily in the castor casing.
- Put the bearing housing cap back on. (Tension min. 10 Nm/7,4 ft.lbf/88 in.lbf.).



Image 38 Remove the bearing housing cap



Image 39 Screw the nut off

7 Accessories and equipment

A wide range of accessories and equipment is available for Wolturnus active wheelchairs. The most popular accessories are described in this section. The full range of accessories and order information are available at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.1 Push handles

Teardrop-shaped push handle (image 40)

Height-adjustable push handles can be chosen when ordering the wheelchair. Retrofit options will depend upon the chosen back configuration. For advice about retrofitting, contact your nearest Wolturnus A/S sales consultant or distributor. Contact information: see section 13.

Foldable push handles (image 41)

Push handles that can be folded can be mounted either at the top of the back tubes or on an extra tube. Retrofit options will depend upon the chosen back configuration. For advice about retrofitting, contact your nearest Wolturnus A/S sales consultant or distributor. Contact information: see section 13.



Image 40 Teardrop-shaped push handle



Image 41 Foldable push handle

7.2 Wing Back multi-adjustable back system

The Wing Back system, developed by Wolturnus A/S, is a combined ergonomic support system for trunk and back that can be optimised. It can be used to meet a wide range of individual seating position requirements (image 51).

The Wing Back system is exceptional because the upper part of the back can be adjusted for depth, width and height and also function as a side/body support. Independently of one another, the left and right sides can be steplessly adjusted. Asymmetric adjustment is therefore possible.

Adjusting the Wing Back system

- Use a 3 mm Allen key to loosen the clamp until the Wing Back can be moved freely (image 43).
- Adjust the Wing Back height and angle to meet the user's requirements.
- Tighten the clamp.
- Adjust the Velcro straps according to the procedure for a standard back (see section 6.4).



Image 42 Wing Back

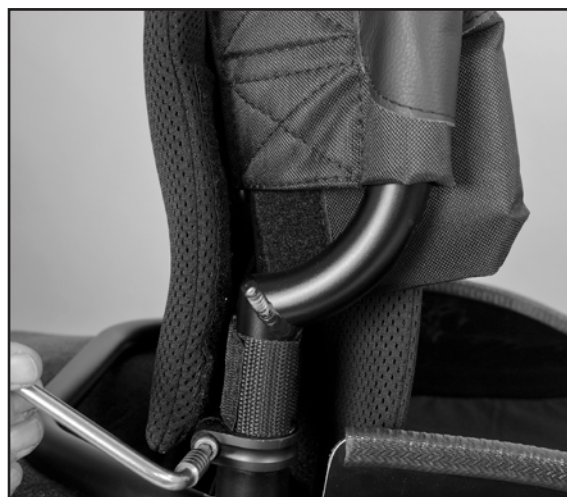


Image 43 Loosen the clamp

7.3 Wheel locks

The wheelchair is supplied with push wheel locks as standard. A range of different wheel locks is available. These can be chosen when ordering the wheelchair or purchased subsequently, for retrofitting.

The full range of wheel locks can be seen at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.4 Stick-holder

Mobility aids such as walking sticks can be transported in a stick-holder. A stick-holder can be selected when ordering or can be retrofitted (image 44). The stick-holder is mounted on the back axle. It is therefore simple to retrofit.

7.5 Tipping pedal

A tipping pedal makes it easier for helpers to tilt the chair over obstacles such as kerbs and doorsteps (image 45). The tipping pedal is mounted in the same way as a stick-holder.



Image 44 Stick-holder



Image 45 Tipping pedal

7.6 Upgrading rear wheels, push rims and tyres

The rear wheels and rim can be upgraded to stronger, technically more advanced models; e.g. a Spinerigy rear wheel and titanium push rim or Schwalbe Marathon or MTB puncture-proof tyres.

The full range of rear wheels, push rims and tyres can be seen at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.7 Upgrading castors

Aluminium castors are available. Depending on the wheelchair's current wheel type, it may be necessary to replace both the castor and front fork. The full range of castors can be seen at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.8 Quick Release axle with tetra-grip for rear wheels

The Quick Release mechanism with tetra-grip makes it easier for, for example, tetraplegics to release the Quick Release and remove the rear wheels. Further information is available at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.9 Quick Release axle for castors

If quick castor changes are required, a Quick Release axle can be mounted in the front fork. Further information is available at the Wolturnus A/S website www.wolturnus.dk/en/products/.

7.10 Sideguards

The active wheelchair is supplied with Dibond sideguards as standard. A range of other sideguards made of different materials, with and without mudguard, is available. The full range of sideguards can be seen at the Wolturnus A/S website www.wolturnus.dk/en/products/

7.11 Thermal bridge insulation for sideguards

To insulate in order to prevent thermal bridges, sideguards can be covered with neoprene. Aluminium sideguards are particularly well-suited for this treatment as aluminium conducts heat. Neoprene can either be glued on or secured with Velcro. Templates for custom-made sideguards are retained at Wolturnus A/S so that the right neoprene cover can be recreated in the future.

7.12 Expansion kit and brackets for fixed sideguards (image 46)

An expansion kit can be used to change the distance between sideguards and therefore broaden the seat width. It can, for instance, be used to advantage in colder months when bulky clothing is worn.



8 Cleaning and maintenance

8.1 Maintenance

Each time the wheelchair is used, operational parts, and particularly wheel locks, should be checked to ensure they are in proper working order. After being loosened 2-3 times when making adjustments or changing parts, self-locking nuts should be replaced.

The following table gives an overview of how to maintain the chair and how often.

Component	Function and inspection	day	month	1/4 year
Tyres	Tyres visibly pumped	X		
	Tyres are not damaged	X		
	Test/adjust tyre pressure (see side of tyre)		X	
	Check thread depth (min. 1 mm)		X	
Rear wheel	Directional stability during use	X		
	Wheels rotate freely without misalignment		X	
	Nuts on rear wheel mounting bracket are tight		X	
Castor	No front fork obstruction		X	
	Wheels rotate freely without misalignment		X	
	Axle bolts correctly tightened		X	
	Cap bolts correctly tightened		X	
Folding back	Fasteners are not obstructed		X	
	Nuts and bolts are tightened		X	
	The pawl locks correctly in the bracket		X	
Footrest	Any locking mechanisms are in working order		X	
	No obstructions or damage		X	
Upholstery	No damage or wear to upholstery		X	
	Securing straps function		X	
	Seat and back upholstery correctly positioned		X	
Wheel locks	Wheel locks in working order	X		
	Correct wheel lock pressure on tyre (5 mm)		X	
Side panels and armrests	Arm rest cushion is not loose	X		
	Side panel and armrest mounting nuts and bolts are tightened.		X	
Screws	All nuts and screws are tightened			X

In the event of faults or missing parts, contact the supplier or Wolturnus A/S. Contact information: see section 13.

Wolturnus A/S recommends that the wheelchair is serviced at least once a year by the supplier or Wolturnus A/S.

NOTICE

The wheelchair must not be used in salt water. Avoid getting salt, sand and other dirt that can cause damage in the wheel bearings, castor mounting bracket or rear wheels. If this happens, the bearings should be replaced.

8.2 Cleaning and disinfection

The wheelchair should be cleaned regularly according to how often it is used and how dirty it is.

Clean the frame, plastic parts and wheels with a mild cleaning agent. After cleaning, dry all parts with a dry cloth.

Clean cushions and upholstery with warm water and washing-up liquid. Remove stains with a sponge or soft brush. Rinse afterwards with clean water and allow the parts to dry before mounting and using.

To disinfect, use water-based agents and follow the manufacturer's instructions.

NOTICE

Do not use corrosive cleaning agents, solvents or hard brushes.

NOTICE

Do not wet-wash. Do not use high-pressure equipment or a water jet. The wheelchair components must not be put in a washing machine.

NOTICE

Clean the seat and back upholstery, cushions, handles and armrest before disinfecting.

8.3 Changing a Tire

If a tyre is punctured, the user or a helper may be able to change it themselves. It requires some hand strength, practical ability and suitable tools. It is advisable to always have a puncture repair kit and an air pump for emergencies (excluding situations with puncture-proof tyres). Suitable air pumps, puncture repair kits or puncture sprays that fill the tyre with expanding foam can be purchased at bicycle shops.

Removing tyres and tubes

- Gently pull the tyre edge over the rim edge with a lever (or two, if it is sitting very tightly). Take care not to damage the rim or tube (image 47).
- Screw off the valve nut and pull the valve out from the rim and rim strap.
- Pull the tube out from between the tyre and rim (image 48).

Repair and check-ups

- Repair the tube according to the instructions on the repair kit or replace it with a new tube.
- Before remounting the tyre and tube, make sure no foreign objects that may have caused the puncture are caught in the rim or tyre.
- Ensure that the tyre band is intact. It protects the tube from spoke damage.
- Push the tube into place between the tyre and rim.

Mounting tyres

- Gently pull the clear tyre edge over the edge of the rim. Start with the valve.
- Check that there are no twists at all in the tube, otherwise air can get out.
- Work the whole way around until the last section of the tyre edge is taut and can be edged into place with one or two levers.

Pumping

- Check on both sides that the tube is not caught between the tyre edge and rim.
- Push the valve lightly in and pull out again to make sure that it is not caught on the tyre edge.
- Fill the tyre with air to the point that it can still be pressed in with a thumb. If the control line on both sides of the tyre indicates the same distance to the rim edge, the tyre is centred. If the tyre is not centred, let some air out and adjust the tyre until it is centred. Now pump the tyre up to the maximum working pressure (see side of tyre) or at least 3.5 bars (350 kPa) and screw the dust cap on tightly.



Image 47 Pull the tire edge over the rim



Image 48 Pull out the tube

INFORMATION

NB: Pneumatic tyres are good for handling and manoeuvring. Solid tyres are good for work situations in which there might be a risk of debris or other items that could puncture a pneumatic tyre.

9 Troubleshooting

During routine maintenance, it may be necessary to make adjustments or repair faults. In most cases, the solution to the problem can be found on the following list:

Problem	Solution	Reference
Castor makes noise or is resistant	<ul style="list-style-type: none"> • Check if there is dirt between the fork and castor or dirt in the fork ball-bearings. 	Section 6.16
	<ul style="list-style-type: none"> • Clean off the dirt and tighten the screws. If they do not roll freely, change the ball-bearings. 	Section 6.19
Front fork shakes	<ul style="list-style-type: none"> • Loosen and remove the bearing housing cap and tighten the nut to a degree where the front fork with wheel can still easily rotate. 	Section 6.19
	<ul style="list-style-type: none"> • Make sure the castor is vertical. 	
Rear wheel makes a loud clicking noise	<ul style="list-style-type: none"> • Check and tighten the spokes and the push rim mounting screws. 	
	<ul style="list-style-type: none"> • Check that nothing is pushing against the rear wheel or spokes. 	
Rear wheel resistance	<ul style="list-style-type: none"> • Check if the rear wheel is misaligned. 	
	<ul style="list-style-type: none"> • Check if, for example, the side panel or another part is pushing against the rear wheel. 	
	<ul style="list-style-type: none"> • Check if the rear wheel bearings are worn and need to be replaced. 	
Loud clicking noise	<ul style="list-style-type: none"> • Check and tighten the screws in the rear wheel and castor mounting brackets 	Section 6.10
		Section 6.19
Footrest is lopsided	<ul style="list-style-type: none"> • Check that the foot plate is horizontal and adjust the footrest height. 	Section 6.11-13
Wheel locks do not work properly	<ul style="list-style-type: none"> • Check that both wheel locks are correctly positioned. 	Section 6.15
	<ul style="list-style-type: none"> • Inspect the rear wheel tyres for wear and tear and for incorrect tyre pressure. 	Section 8.3

If the problem cannot be solved with the aid of the troubleshooting section, contact the supplier or Wolturnus A/S. Contact information: section 13.

10 Technical data

11 Instructions for reuse

11.1 Instructions for reuse

The active wheelchair is suitable for reuse by a subsequent new owner. As the wheelchair is individual and custom-made, it is essential that the chair measurements and equipment are tailored to suit the new user. As with machinery and vehicles, there will be wear and tear. It is therefore important to ensure that the chair's functions and features have not been altered to a degree that could create a safety risk for the new user or any third parties during the lifetime of the chair.

Based on market studies and on its knowledge of contemporary technology, Wolturnus A/S has calculated that the active wheelchair, when used, serviced and maintained in accordance with the original instructions, has a five-year lifetime (excluding time kept in storage by an authorised dealership or the user). Note that with careful care and proper use, the active wheelchair can be used for a longer period than the defined lifetime.

Prior to reuse, the wheelchair must be carefully cleaned and disinfected. The product must then be inspected by an authorised specialist to assess its condition, wear and tear and damage. All worn or damaged parts and components that do not suit or are not designed for the new user must be replaced. This user manual includes a service plan (see maintenance chart section 8) and detailed information about the wheelchair.

11.2 Disposal

The wheelchair is delivered in a brown cardboard box that can be delivered to recycling centres or cardboard collection points. The protective bubble wrap on the frame must be disposed of as combustible waste. The aluminium frame must be disposed of as metal. The upholstery and side panels must be disposed of as combustible waste.

12 Environment

Wolturnus A/S strives to respect the environment to the greatest degree possible. An assessment has been done to determine the wheelchair's effect on the environment during its life cycle. During development, materials and forms are chosen that minimise waste of energy and material during production.

Wolturnus A/S has a unique approach to individual user measurement and to subsequent tailoring of the chair to meet the user's needs. Combined with the wheelchair's high mechanical quality, this ensures that the user can use the wheelchair for many years. The wheelchair lifetime is calculated to be approximately five years if it is maintained according to the instructions in this user manual. The long lifetime limits its effect on the environment.

Furthermore, meticulous quality control throughout the production process ensures that faults are rare, which limits the need to use superfluous resources on repairs or replacement products.

Generally, all work at Wolturnus A/S is carried out with respect for the environment. Aluminium residue after the production process is collected in containers and delivered for recycling. During the mounting process, use of hazardous agents is kept to a minimum and the work processes meet occupational safety requirements (APV). Use of material is continually optimized to ensure minimum waste.

13 Producent og service locations

Service locations

In Denmark, authorised sales consultants throughout the country are in direct contact with Wolturnus A/S about spare parts, service and repairs.

Authorised distributors for Wolturnus A/S abroad:

- Finland: Respecta
- The Netherlands: Double Performance
- New Zealand: Euromedical
- Germany, Austria and the Czech Republic: Otto Bock

After-sales spare parts are available for all Wolturnus wheelchairs.

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Webshop for purchasing equipment and spare parts: <http://www.wolturnus.dk/en/products/>

Wolturnus A/S active wheelchairs are CE and TÜV approved in accordance with the requirements of Directive 93/42/EEC for medical devices (Class 1) and DS/EN 12183.



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