

# STRONGBACK 22S STRONGBACK 24 STRONGBACK 24HD

Lightweight Wheelchair



## Instructions for use

**STRONGBACK**  
mobility 



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## 1 Introduction

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We would like to thank you for the trust you have placed in us in purchasing this wheelchair.

By opting for the **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** with its revolutionary *STRONGBACK* system, you have chosen a top-quality, lightweight wheelchair, that has been specially designed to ensure your sitting position is both comfortable and ergonomic.

A wheelchair is a medical device and a technical aid, so it is important that you know how to use it correctly, as improper use may be dangerous. We therefore ask you to read these instructions carefully before using the wheelchair for the first time. They contain important safety information for users and their companions, along with useful tips on how to use and look after your wheelchair.

## 2 Safety instructions

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- Ensure that any defects are immediately checked and repaired by a qualified wheelchair technician.
- Do not make any modifications to the wheelchair yourself. Contact your dealer to arrange for any such modifications to be made. Any improper changes or modifications to the wheelchair may result in the wheelchair not functioning properly and increase the risk of accident.
- Only use original parts and accessories approved by *Strongback Mobility*.
- All moveable parts should be serviced periodically in order to ensure that the wheelchair is working properly and can be used safely.
- Exposure to water or high levels of humidity may result in the wheelchair becoming rusty. Do not use the wheelchair in the shower or swimming pool and store it away from potentially damp spaces such as the bathroom. If the wheelchair still comes into contact with water, make sure you dry it out as quickly as possible.
- Please note that padded or upholstered areas may become hot if exposed to direct sunlight and may cause injuries to the skin if touched. Therefore, it is important to ensure that these parts are kept covered or that the wheelchair is kept out of direct sunlight.
- This product has not been tested in accordance with ISO 8191-1 and 8191-2 and is therefore not deemed to be fire resistant. It is vital to ensure that any padded, upholstered or attached parts are not exposed to sources of fire such as cigarettes, cigarette lighters or other open flames.
- All companions must be physically and mentally capable of maneuvering and controlling the wheelchair with the user in it. This includes being able to tip the wheelchair and lift it onto the pavement when necessary.
- In case of any serious incident that has occurred in relation to the device, please report it to the manufacturer and the competent authority of the Member State in which you are established.
- Ensure that the quick-release axles are correctly installed in the axle mounts, or there may be a risk of injury.

## 2.1 Safety instructions for use

- If you are unsure about your wheelchair's operation or any of the instructions given in this user manual please arrange for a specialist to show you how to use the wheelchair before using it for the first time. Please contact your local dealer where you purchased the wheelchair.
- Practice using your new wheelchair on a flat, manageable surface to avoid potential falls and dangerous situations. It is recommended to have someone with you while you are practicing
- Before you start using your wheelchair, please make sure that all attached parts have been properly secured.
- Please ensure that you comply with the **maximum load capacity of 300 lbs / 135 kg resp. 375 lbs / 170 kg for the STRONGBACK 24HD model.** In doing so, it is important to take additional weight into account, such as bags or rucksacks.
- Always ensure that the wheelchair has been fully unfolded before sitting in it.
- Never use the wheelchair while under the influence of alcohol or other substances that may affect your concentration or physical and mental abilities. This is also true for any companions.
- Always apply the wheel lock before getting in or out of the wheelchair.
- Keep hands and fingers away from all moving parts whenever possible. Please be aware that parts of the body or clothing can be entangled by moving parts if not careful.
- Never use the wheelchair on an escalator.
- Steps and larger obstacles should only be tackled with the help of at least two companions. If facilities, such as access ramps, lifts or stair-climbing devices have been provided, be sure to use them at all times.
- The wheelchair should only be lifted by holding permanently mounted parts and not, for example, by holding the footrests.
- The wheel lock should not be used to slow down the wheelchair while it is moving.
- Road traffic regulations should always be observed when using the wheelchair on roads. Passive lights (reflectors) that are always visible to other road users should be fitted before using the wheelchair on roads.
- Ensure that the tires have sufficient depth of tread at all times.
- Please be aware that when travelling on slopes or on loose or slippery surfaces, the braking efficiency of the handrims is significantly reduced. Adapt your handling of the wheelchair to the prevailing conditions at all times.
- Fingers and palms can heat up significantly when using the pushrims to brake while travelling at speed or on long descents. Be careful not to burn yourself!
- It is a good idea to wear leather gloves for trips outdoors as they increase grip and protect the fingers and palms against dirt and injury.

## 2.2 Safety instructions – preventing tipping

- Please be aware that there is the danger of tipping over when travelling on slopes of more than **12% (7°)**. The use of anti-tip wheels is therefore strongly recommended. The dynamic stability of the wheelchair on slopes is dependent on the configuration of the wheelchair itself as well as the skills and handling style of the user, therefore it cannot be specified in advance.
- Avoid shifts in weight that could lead to the wheelchair tipping over, for example:
  - Adding additional cushions or other sitting aids
  - Changes to posture, sitting position or weight distribution
  - Attaching a rucksack or bag to the wheelchair. This changes the center of gravity and increases the probability of tipping.
- If an object is beyond your reach while positioned in the chair, please ask a companion for assistance or use a tool to help you reach the object.
- Always align the front wheels to the front as soon as the wheelchair is stationary. To do this, move the wheelchair slightly forwards and then slightly backwards. This increases stability and reduces the risk of tipping. Please read chapter 04 **Fehler! Verweisquelle konnte nicht gefunden werden.** for detailed description.
- There is an increased risk of tipping over when travelling on poor quality paths or roads (e.g. coarse gravel, potholes, etc.) or moving over drops (e.g. curbs, etc.).

## 2.3 Transportation in motor vehicles



This wheelchair is not intended to be an alternative to a car seat. When travelling by car, the wheelchair user should always transfer to a seat intended for use in such a vehicle. Ensure the wheelchair is securely folded together for transportation in the car. Always transport the wheelchair in the trunk or luggage compartment of the vehicle. Never use a wheelchair that has been involved in a traffic accident.

## 3 General information

These instructions are designed to help familiarize yourself with the use and handling of the wheelchair. They are an integral and necessary component of the wheelchair. Ensure that you always have these instructions on hand and make sure that you include them with the wheelchair if you transfer it to another owner.

Please read all the instructions carefully before using the wheelchair for the first time.

### 3.1 Signs and symbols

| <b>Symbol</b>                                                                       | <b>Titel</b>        | <b>Source</b>                 | <b>Description</b>                                      |
|-------------------------------------------------------------------------------------|---------------------|-------------------------------|---------------------------------------------------------|
|  | <i>Manufacturer</i> | <i>EN ISO 15223-1 (5.1.1)</i> | <i>Indicates the manufacturer of the medical device</i> |

|                                                                                     |                                                                           |                                |                                                                                                                                                                                                                                                                                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|    | <i>Authorised representative in the European Community/European Union</i> | <i>EN ISO 15223-1 (5.1.2)</i>  | <i>Indicates the authorised representative in the European Community/European Union</i>                                                                                                                                                                                                                     |
|    | <i>Date of manufacture</i>                                                | <i>EN ISO 15223-1 (5.1.3)</i>  | <i>Indicates the authorised representative in the European Community/European Union</i>                                                                                                                                                                                                                     |
|    | <i>LOT (Batch) Identification</i>                                         | <i>EN ISO 15223-1 (5.1.5)</i>  | <i>Shows the manufacturer's batch designation so that the batch or lot can be identified</i>                                                                                                                                                                                                                |
|    | <i>Serial number</i>                                                      | <i>EN ISO 15223-1 (5.1.7)</i>  | <i>Displays the serial number of the manufacturer so that a specific medical product can be identified</i>                                                                                                                                                                                                  |
|   | <i>Observe instructions for use or electronic instructions for use</i>    | <i>EN ISO 15223-1 (5.4.3)</i>  | <i>Indicates to the user that it is necessary to follow the instructions for use</i>                                                                                                                                                                                                                        |
|  | <i>Caution</i>                                                            | <i>EN ISO 15223-1 (5.4.4)</i>  | <i>Indicates that near the place where the symbol has been placed has been affixed, caution when handling the device or the control unit or that the current situation requires the attention of the operator or an intervention by the operator is required in order to avoid undesirable consequences</i> |
|  | <i>Medical Device</i>                                                     | <i>EN ISO 15223-1 (5.7.7)</i>  | <i>Indicates that the object is a medical device</i>                                                                                                                                                                                                                                                        |
|  | <i>Unique Device identification</i>                                       | <i>EN ISO 15223-1 (5.7.10)</i> | <i>Displays a device that contains information on a unique device identifier (UDI)</i>                                                                                                                                                                                                                      |
|  | <i>No strap-type securement point</i>                                     | <i>ISO 7176-19</i>             | <i>The wheelchair is not designed to be secured when used as a seat in a motor vehicle, and it does</i>                                                                                                                                                                                                     |

|                                                                                   |                                             |                                                                                                        |                                                                                                                         |
|-----------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
|                                                                                   |                                             |                                                                                                        | <i>not comply with the requirements of ISO 7176-19:2008</i>                                                             |
|  | <i>CE-Mark</i>                              | <i>Regulation EG 765/2008</i>                                                                          | <i>CE-Mark. Indicates that this medical device is authorised in accordance with the applicable European legal basis</i> |
|  | <i>UKCA-Symbol (UK Conformity Assessed)</i> | <i>The Product Safety and Metrology etc. (Amendment etc.) (EU Exit) Regulations 2019 / No 765/2008</i> | <i>UKCA labelling indicates that the product complies with UK regulations</i>                                           |

### 3.2 Intended purpose

The **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** is designed solely for the purposes of transporting a physically disabled person and improving their mobility. It has been designed for both indoor and outdoor use.

The wheelchair has been designed to accommodate a maximum load of 300 lbs. / 135 kg resp. 375 lbs / 170 kg for the STRONGBACK 24HD model.

Liability can only be accepted if the product is used under the prescribed conditions and for its intended purposes.

#### 3.2.1 Indications for use

Inability to walk or serious difficulty in walking as a result of:

- Paralysis
- Limb loss
- Limb defect / deformity
- Joint contractures / joint damage
- other illnesses

#### 3.2.2 Contraindications

The wheelchair is unsuitable for use in cases of:

- severe balance disorders
- Perceptual disorders
- Loss of both arms
- Joint contractures / joint damage in both arms
- Inability to sit
- impaired or insufficient vision

### 3.3 Service life

If used properly and if the safety, maintenance and service instructions are followed correctly, the service life of the wheelchair is up to 5 years. If the wheelchair is maintained in an orderly state, it may be possible to continue using the wheelchair beyond this time.

### 3.4 Responsibility

As a manufacturer, we can only assume responsibility for the safety, reliability and usability of the wheelchair in so far as any modifications, extensions, repairs or servicing are carried out exclusively by persons who are authorized by us to do so and in so far as the wheelchair has been used in accordance with all instructions for use.

### 3.5 Declaration of conformity

As the manufacturer of the product, *Strongback Mobility AG* hereby declares that the **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** fully conforms to the requirements of European Regulation (EU) 2017/745 and the US FDA requirements of 21 CFR.

## 4 General tips for using the wheelchair

If this is your first time or even if you are a regular wheelchair user, proper use is necessary to remain safe.

1. Maintaining your center of balance is key and must be considered when you are reaching, bending or transferring (Figure 1 and Figure 2). This helps you maintain stability and balance and keeps you seated correctly.
2. Practicing bending, reaching - forward, backwards and side to side with assistance until you are confident you are maintaining your center of gravity.



Figure 2 Correct sitting posture – center of gravity in the center.



Figure 1 Incorrect sitting posture – center of gravity shifted too far forward.

### 4.1 Standing or transferring

Assistance standing or transferring from your wheelchair is preferred to keep you safe. However, if you are alone and are in need of transferring or standing, you must take the following steps to reduce the chance of falling or tipping.

1. Clearing the area of obstacles prior to standing is important to decrease the risk of tripping or falling.
2. Park the wheelchair as close as possible to the area where you will do the transfer.
3. Roll backward a few inches until the front caster wheels spin around. This positions the casters so they are extended away from the drive-wheels creating the longest possible wheelbase (Figure 3 and Figure 4).
4. Engage wheel locks.
5. Swing away the footrests and place feet securely on the floor. A wider stance may help you stabilize.
6. Stand up slow and steady while using your arms to help you maintain your center of gravity (Figure 5 and Figure 6).



Figure 3 Incorrect caster position to the back



Figure 4 Correct caster position to the front



**Caution!**

NEVER lean forward or scoot to front end of the seat. Be sure caster wheels are set and wheel locks are engaged.



Figure 6 Correct posture – center of gravity in the center and front wheels facing forward.



Figure 5 Incorrect posture – center of gravity shifted too far forward.

#### 4.2 Side or backwards reaching

1. Position yourself as close to the item as possible.
2. Roll backward a few inches until the front caster wheels spin around. This position the casters so they are extended away from the drive-wheels creating the longest possible wheelbase.
3. Engage wheel locks.
4. Reach down or back only as far as your arm will extend while maintaining your center of gravity.



**Caution!**

Never scoot forward in the seat or reach between your knees for an object. Through the weight shift, the wheelchair can tip over.

#### 4.3 Getting over curbs and obstacles

When the need for curb climbing arises, an assistant should:

1. Rotate the anti-tippers to the up position.
2. The attendant then places their foot on the back of the frame and pushes down on the frame with their foot while slowly pulling back on the handles (do NOT push down on handles).
3. Once obstacle has been cleared, rotate the anti-tippers back to the down position.

## 5 Product description

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The **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** is a lightweight folding wheelchair with integrated ergonomic back support (lumbar support). It is pre-assembled and delivered in a cardboard box. After unpacking, if possible, keep the cardboard box and other packing materials, as they may be required for storing the wheelchair at a later date.

Please check the contents of the package upon receipt to ensure that all parts have been included and are undamaged. Do not use the product if any of the parts are damaged. Inform your specialist retailer of any damage without delay.

### 5.1 Scope of supply

The contents of the Strongback Mobility box should include:

- 1 wheelchair, pre-assembled and folded
- 1 pair of footrests
- 1 set of instructions for use
- 1 set of tools
- Accessories (if ordered)

In the event that the wheelchair is delivered by parcel post or carrier, the contents should be checked for any damage suffered in transit immediately and in the presence of the delivery person(s). If there is any damage, please proceed as follows:

- Make a note of the damage.
- Write a declaration of assignment; all claims arising as a result of the damage are assigned to the deliverer.
- Send the record of damage, consignment note and declaration of assignment to *Strongback Mobility*.

### 5.2 Labelling

The product identification plate is located on the inside of the lower side frame tube. This plate includes the serial number, model name and other technical details. If you need to contact your dealer about repairs, replacement parts, warranty claims or damage to the wheelchair suffered in transit, please ensure that you have the following details on hand: the wheelchair's exact model name and number, month of manufacture, lot number and serial number.

### 5.3 Overview



1. Push handles
2. Attendant brakes (optional)
3. Backrest with integrated lumbar support
4. Folding back release hinge (not for the STRONGBACK 24HD model)
5. Drive wheel (optional in some models with drum breaks)
6. Handrim
7. Wheel lock
8. Castor
9. Footplate with heel strap (can be folded up)
10. Anti-tip wheels
11. Footrests (swingable and removable)
12. Seat cushion
13. Side panel with netting to protect clothing
14. Armrest (optional in some models with back-flip armrest)

## 6 Adjustments

The adjustments described below should be carried out in consultation with your specialist medical aid supplier. You may also be able to make these adjustments yourself if you have sufficient previous knowledge and have been given clear instructions from the supplier.

The following tools will be required to make these adjustments:

- Allen key set (included in the tool set)



### **Caution!**

Complete these adjustments before the user sits in the wheelchair in order to avoid potential injury.

### 6.1 Adjusting the length of the footrests

The height of the footrests can be adjusted to suit the length of the user's lower leg.

To adjust the height, undo the Allen screw (1) on each footrest. You can now adjust the height of the footrests by selecting one of the pre-defined positions marked by the holes in the tubing (2). The ideal length of footrest is obtained when your thighs are fully and comfortably supported by the chair seat when you place your feet on the footplates. To complete the adjustment, tighten the Allen screw securely in the hole you have selected.



### 6.2 Adjusting the backrest

The backrest is set in a predefined position during manufacture and is likely to be suitable for most users. However, it can be individually adjusted by opening the Velcro fasteners and loosening or tightening them in accordance with the user's needs before closing them again. After each adjustment, it is important to ensure that the Velcro fasteners are firmly attached to each other so that they do not open accidentally.

Some possible adjustments are listed below.

- To adjust the support for the lower spine to a higher position, tighten the middle fasteners (2) and loosen the lower fasteners (3).



- To adjust the support for the lower spine to a lower position, tighten the lower fasteners (3) and loosen the middle fasteners (2).
- To increase the area of the support for the lower spine, tighten both the middle fasteners (2) and the lower fasteners (3).
- To decrease the size of the posture support for the lower spine, loosen both the middle fasteners (2) and the lower fasteners (3).
- To alter the posture support for the upper back and so change the backrest angle, first remove the fixing screws (4). Next, tighten the upper fasteners (1) to provide a higher level of support, or loosen them to provide a lower level of support. When the ideal position has been found, screw the fixing screws through the material and back into the frame.

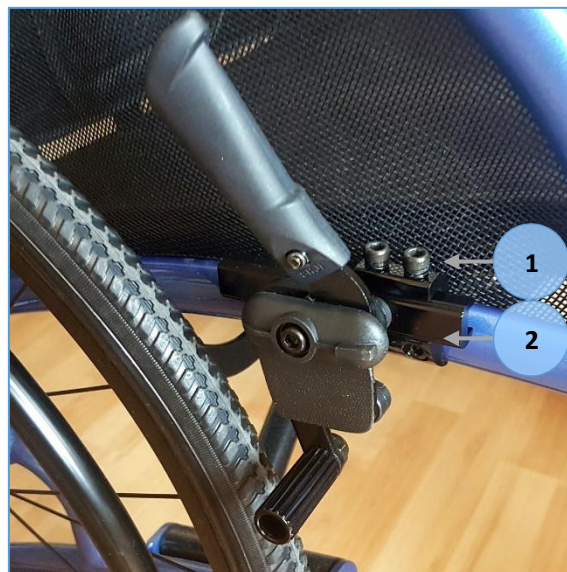
Tip: Before making any of these adjustments, half close the wheelchair in order to take the tension out of the backrest.

### 6.3 Adjusting the wheel locks

The wheel locks are adjusted correctly during manufacture and should not require further adjustment. Over time of use, however, it may be required to re-adjust the wheel locks to ensure proper function. In any case, if you feel that the locks are not tight enough, adjust them immediately as follows.

Open the locks entirely by pulling the lever backwards as far as possible. Loosen the screws (1) on the top of the rail (2). Slide the lock in its rail forward (to loosen the lock) or backwards (to tighten the lock). Make sure that the lever remains upright. Tighten the screws.

The optimum distance (factory setting) between the brake shoe and the tire depends on the type of wheel locks installed on your model and is 10-12 mm / 0.4-0.45 inch (3) or 23-25 mm / 0.9-1.0 inch (4).



**Caution!**

Make sure the wheel lock always locks the wheel securely when engaged (lever pushed forward) under all conditions. Serious injury may result if the wheel lock is not effective! It is advisable that only specialist staff carry out wheel lock adjustments.

#### 6.4 Adjusting the axle position of the drive wheels

The **STRONGBACK 24** has a choice of three horizontally adjacent positions for the axle serving the rear drive wheels (1). This makes it possible to adjust the center of gravity and the associated maneuvering characteristics of the wheelchair.



The further back the axle mounts are installed, the less likely the wheelchair is to tip over in use, i.e. in this configuration there is the least likelihood of the wheelchair tipping backwards. The further forward the axle mounts are installed, the lower the proportion of the total weight that is over the forward casters, making it easier to deliberately tip the wheelchair backwards (either by the user or the companion), which in turn makes the chair easier to maneuver.

The wheelchair is delivered with the axle mounts factory fitted in the furthest back position. Experienced users who want the axle position to be moved further forward should contact the specialist retailer who sold them the wheelchair.



**Caution!**

Adjustments to the axle position should be exclusively carried out by specialist staff trained by *Strongback Mobility* or their contractual partners and not by the purchaser or wheelchair user. This kind of adjustment involves repositioning the wheel locks, so any incorrect adjustment could significantly increase the risk of accident or injury.

This feature is not available for the **STRONGBACK 22S** and the **STRONGBACK 24HD**.

## 7 Handling

### 7.1 Unfolding the wheelchair

Unfold the frame of the wheelchair by pushing down evenly on the outer edges of the seat using both hands (1) until the seat is fully extended (2).



**Caution!**

Do not hold the sides of the seat while pushing down. You could trap your fingers! Hands and fingers must remain on top of the seat while pushing down.

Raise the upper half of the backrest by pulling both push handles backwards and upwards (4) until the folding back release hinge (5) snaps into the locked position.

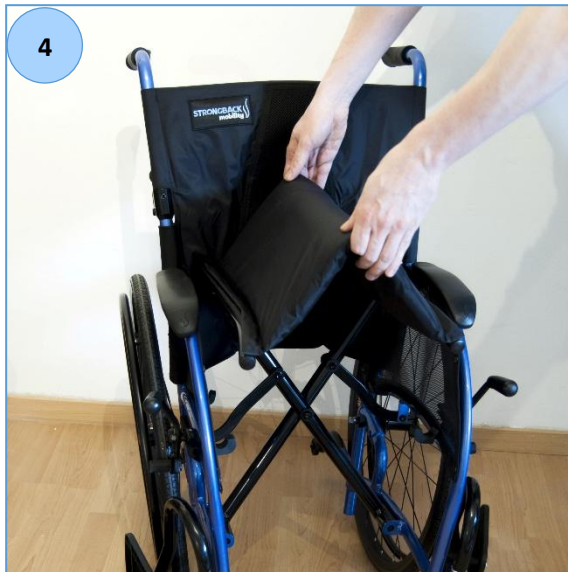


## 7.2 Folding the wheelchair

Fold the backrest by using both hands to press the black plastic levers on the folding back release hinges against the frame (1) before folding the upper part of the backrest down evenly on both sides (2).



Fold the frame by first folding the footplates into the upright position (3) and then pulling the seat evenly upwards using both hands to hold the middle of the seat at the front and rear (4).



### 7.3 Getting in and out

Make sure that you have tested your individual mobility limits with an expert before the first use of your wheelchair. During untrained entering and exiting of the wheelchair, it can become unstable and tip over. The wheel locks must be locked during these maneuvers. Footrests should be folded up or can be removed.

### 7.4 Using the wheel locks

The wheels are locked when the handle is pushed completely forward, and the brake shoe is against the wheel (1). To unlock, pull the handle backwards. Lock both wheels before each embarking and disembarking. The wheel locks should not be used to reduce speed while moving.



## 7.5 Using the attendant brakes

Some **STRONGBACK 22S / STRONGBACK 24 /STRONGBACK 24HD** models come with attendant brakes. To operate the brakes, simply squeeze the attendant brake lever (1).



The attendant brakes can be locked in one of the following two ways (depending on the type of attendant brake installed on your wheelchair):

- Push the lower handle straight down until it stays in the locked position (2).
- With the brake lever pulled (3), push the locking lever (4) and release the brake lever.



### **Caution!**

Check the proper operation of the attendant brakes before each wheelchair ride, especially before the first use. Brake failure or operating errors can result in serious injury to the user or the attendant.

If you suspect that the brakes are not working properly or need to be adjusted, take the wheelchair to the dealer where you bought your wheelchair. The chair must not be used before it has been checked and repaired.

### 7.6 Swiveling the footrests

To swivel the footrests, hold the top of the footrest and pull it gently upwards to release it from its locked position (1), then swivel the footrest forwards or backwards until it is in the desired locked position.

The footrests can be locked into place to the rear (2), to the side (3) and to the front (4).



The lateral locked position is only intended for use when the user of the wheelchair is getting in and out of the chair. The chair should not be moved with the footrests locked in this position as the footrests may get caught on an obstacle or obstruction.

The rear locked position can only be used when the drive wheels have been removed.



**Caution!**

Take care not to trap your fingers when swiveling the footrests to the rear. Move the footrests slowly and keep your fingers out of harm's way.



**Caution!**

Do not stand on the footrests as they may break, increasing the risk of injury. The wheelchair could also tip over.

## 7.7 Removing the footrests



The footrests can be completely removed from the wheelchair by pulling the plastic clip with its retaining pin (1) horizontally out of the tube. The whole of the footrest can then be pulled up and out of the footrest mounting. When refitting the footrests ensure that the hole for the locking pin in the footrest is aligned with the hole in the frame.

## 7.8 Using the Flip-Back Armrests

Some **STRONGBACK 22S / STRONGBACK 24** models come with flip-back armrests. To operate the flip-back armrests, simply lift the armrest and fold it back until it is vertical. Flipping the armrests backwards will allow for easy transfer in and out of the chair.



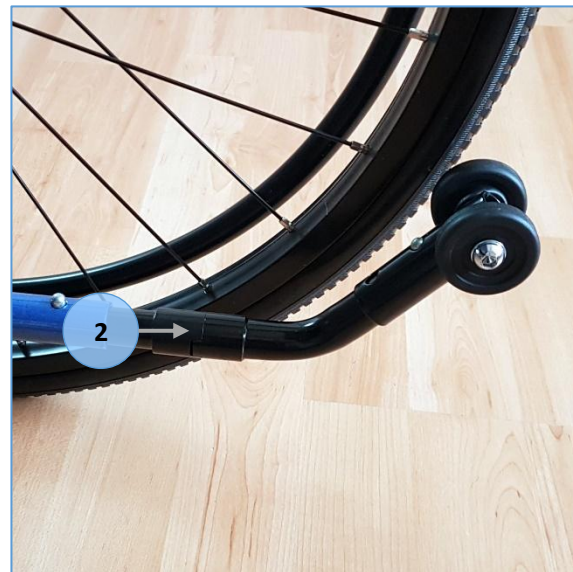
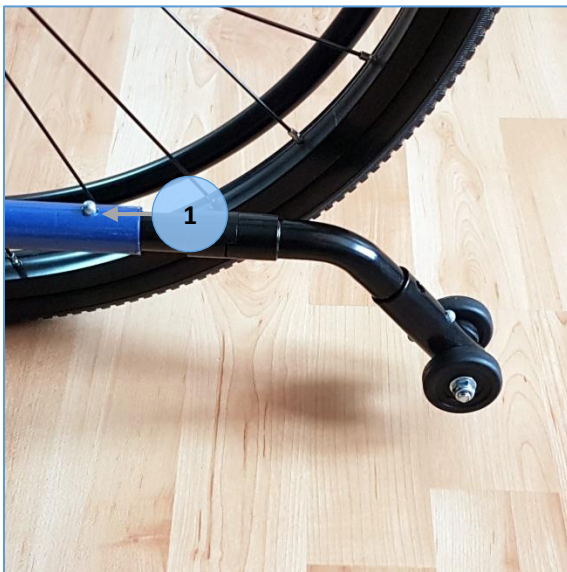
### 7.9 Using and removing the anti-tip wheels

The anti-tip wheels are designed to prevent the wheelchair from tipping over backwards. They can be removed from the wheelchair for transportation purposes by pressing on the locking button (1) and pulling the wheels out of the frame tubing.



**Caution!**

The locking buttons should protrude out of their apertures (1). This must be checked carefully after each adjustment and especially when the anti-tip wheels have been temporarily removed and then refitted.



If the wheelchair is to go up or down a high step (e.g. a curb), the anti-tip wheels must be swiveled upwards to avoid them catching on the ground. Pull on them to unlock (2) and swivel up/down so it looks like picture 2 above.



**Caution!**

The anti-tip wheels must be secured in their apertures (1) and swiveled downwards when the wheelchair is in use (exception: when going over a high step). Otherwise, the wheelchair could tip over and cause serious injury.

## 7.10 Removing the drive wheels

The drive wheels are fitted with a quick-release axle. The wheels can be removed and refitted without tools. To remove the wheels, press the locking button (1) and remove the drive wheel from the frame.



Press the locking button to attach the axle to its mounting. Release the locking button to fix the axle in place. Ensure that the locking button springs back into its initial position.



### **Caution!**

Every time you refit the drive wheels, check to make sure that the axle is securely fitted back in place by trying to remove the wheel without pressing the locking button. The wheel should not come away from the frame.

## 8 Maintenance and service

As the user, you are likely to be the first to notice any damage to the wheelchair. Check the condition of your wheelchair regularly. If you discover a problem, consult an expert without delay. The wheelchair should be serviced by a specialist at least once a year.

Before using the wheelchair for the first time and after every service or adjustment it is essential to check the following:

- Have all nuts, screws and bolts been securely tightened? Self-locking nuts should only be used once and then replaced.
- Are there any signs of damage or wear and tear?
- Are all the settings correct?



### **Caution!**

Check all screw and bolt connections carefully immediately after carrying out repairs or adjustments. Any safety nuts that are removed during repairs should be replaced with new safety nuts when the wheelchair is re-assembled.

## 8.1 Checks prior to each use

We recommend that you check the following each time you use the wheelchair:

- Check that the brakes are working properly.
- Check that the wheels are functioning properly by testing whether the wheelchair travels in a straight line.
- Check that all removable parts are securely fixed in place, e.g. armrests, footrests, quick-release axles, etc.
- Check the wheelchair for visible signs of damage, e.g. damage to the frame, backrest, seat and backrest upholstery, wheels, footplates, etc.
- Check the seat and backrest for material defects, tears or loss of tension in the material.

## 8.2 Monthly checks

- Check that all moving parts, including the folding mechanism, move freely and quietly. Squeaking sounds suggest there may be damage and the wheelchair should be checked over by a specialist retailer.
- Check the proper operation of the brakes. If you suspect that the wheel lock or the attendant brakes are not working properly or need to be adjusted, take the wheelchair to the dealer where you bought your wheelchair.
- Spin each of the wheels when the chair is empty to ensure they are turning freely. At the same time, check whether the wheels come to a slow stop. If the wheels stop abruptly make sure the hubcaps are correctly fitted. Check whether any dirt has gotten into the wheel hubs. The service life of the wheels depends on usage. Check the depth of tread on the tires. There should be at least 1 mm / 0.04 inches of tread. Defective or worn tires must be replaced.
- In order to ensure that the quick-release axle system on the drive wheels continues to work properly, it should be cleaned regularly with a dry cloth and then oiled.

## 8.3 Replacing parts

You can easily replace attached parts such as footrests, anti-tip wheels and drive wheels yourself if they have become damaged. Please contact your specialist retailer to obtain the correct parts. To ensure that the replacement parts are correctly mounted, please refer to Section 6 (Adjustments) and Section 7 (Handling).

## 8.4 Spare parts and accessories

Your specialist retailer will have all the necessary information relating to replacement parts. You can also find out more about recommended and available accessories on our website [int.strongbackmobility.com](http://int.strongbackmobility.com)

## 8.5 Cleaning and disinfecting

Clean the wheelchair using a soft cloth and soapy water. The wheels can be cleaned using water and a brush with plastic bristles (do not use a wire brush!). Do not use any corrosive cleaning agents as they could harm the armrest material and cause damage. Ensure that the wheelchair is thoroughly dried after cleaning. Never use a hose, high-pressure cleaner or

similar devices to clean the wheelchair as the frame could become rusty. Approved sprays or disinfecting tissues can be used to disinfect the wheelchair.

## 8.6 Storing the wheelchair

The wheelchair should be kept or stored in a dry, dust-free place at normal room temperature.

## 8.7 Disposal

Please contact your specialist retailer if your wheelchair is no longer in use and requires disposal. If you wish to dispose of the wheelchair yourself, contact your local waste disposal operators in accordance with the local waste disposal regulations. Below is a description of the materials used in the wheelchair to assist with the process of disposal or recycling. There may be specific local regulations pertaining to disposal or recycling and these must be complied with when disposing of the wheelchair (this may include cleaning or decontaminating the wheelchair prior to disposal.)

- Steel: Quick-release axles, hinges, bolts and screws, studs and pins
- Aluminum: Frame (chassis)
- Plastics: Handles, tube plugs, casters, footplates, arm pads, drive wheels, side panels
- Padding and upholstery: Polyester fabric with PVC coating and foam material

## 8.8 Re-using the wheelchair

The **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** is suitable for re-use by another user. The wheelchair should be thoroughly cleaned and disinfected in accordance with the care and hygiene instructions included here. All technical documents on how to use the wheelchair safely should be included when the wheelchair is passed on to the new user. The wheelchair should first be checked by an authorized dealer in accordance with the maintenance and service protocol (see the maintenance and service requirements in Chapter 11) and passed on to the new owner in perfect working order.

## 9 Guarantee / Legal Claims

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Information on warranty and legal claims can be found here:

EU-Market



<https://strongbackmobility.de/pages/versand-und-zahlung>

and

US-Market



<https://www.strongbackmobility.com/pages/warranty-easy-returns>

## 10 Technical specifications

| Model                              | <i><b>STRONGBACK<br/>22S</b></i>         | <i><b>STRONGBACK<br/>24</b></i>   |                                   | <i><b>STRONGBACK<br/>24 HD</b></i> |
|------------------------------------|------------------------------------------|-----------------------------------|-----------------------------------|------------------------------------|
| <b>Seats</b>                       | <b>16" / 40 cm</b>                       | <b>18" / 45 cm</b>                | <b>20" / 50 cm</b>                | <b>22" / 56 cm</b>                 |
| Seat width                         | 16" / 41 cm                              | 18" / 45 cm                       | 20" / 50 cm                       | 22" / 56 cm                        |
| Total length                       | 40" / 101 cm                             | 40" / 102 cm                      | 40" / 102 cm                      | 43" / 109 cm                       |
| Total width                        | 24" / 62 cm <sup>1</sup>                 | 27" / 69 cm <sup>1</sup>          | 29" / 74 cm <sup>1</sup>          | 31" / 80 cm <sup>1</sup>           |
| Total height                       | 35" / 89 cm                              | 37" / 95 cm                       | 37" / 95 cm                       | 35" / 88 cm                        |
| Length folded                      | 28" / 72 cm                              | 28" / 72 cm                       | 28" / 72 cm                       | 31" / 80 cm                        |
| Width folded                       | 13" / 32 cm <sup>1</sup>                 | 14" / 35 cm <sup>1</sup>          | 14" / 35 cm <sup>1</sup>          | 13" / 32 cm                        |
| Height folded                      | 26" / 67 cm                              | 30" / 76 cm                       | 30" / 76 cm                       | 35" / 89 cm                        |
| Total weight <sup>2</sup>          | 22.3 lbs.<br>10.1 kg <sup>4</sup>        | 23.4 lbs.<br>10.6 kg <sup>4</sup> | 23.8 lbs.<br>10.8 kg <sup>4</sup> | 31.8 lbs.<br>14.4 kg <sup>4</sup>  |
| Net weight <sup>3</sup>            | 15 lbs.<br>6.8 kg <sup>4</sup>           | 15.9 lbs.<br>7.2 kg <sup>4</sup>  | 17.2 lbs.<br>7.8 kg <sup>4</sup>  | 27.8 lbs.<br>12.6 kg <sup>4</sup>  |
| Drive wheel size<br>(diameter)     | 22" / 56 cm                              | 24" / 61 cm                       |                                   |                                    |
| Static stability                   | At least 7° (depending on configuration) |                                   |                                   |                                    |
| Distance from<br>footplate to seat | 15-18"<br>39-45 cm                       |                                   |                                   |                                    |
| Distance from seat<br>to armrest   | 8"<br>20 cm                              |                                   |                                   |                                    |
| Seat angle                         | 12°                                      |                                   |                                   |                                    |
| Effective seat<br>depth            | 16" / 40 cm                              | 18" / 45 cm                       |                                   | 19" / 48 cm                        |
| Seat height at<br>front edge       | 18" / 46 cm                              | 20" / 51 cm                       |                                   | 20" / 50 cm                        |
| Back support<br>height             | 18" / 45 cm                              | 19" / 48 cm                       |                                   | 18" / 45 cm                        |
| Back support angle                 | curved from -10° to +20°                 |                                   |                                   | curved from<br>-10° to +24°        |
| Maximum<br>obstacle height         | 5" / 12 cm                               |                                   |                                   | 3" / 7 cm                          |
| Turning radius                     | 27" / 68 cm                              |                                   |                                   | 31" / 79 cm                        |

<sup>1</sup> Models with drum breaks 1" / 2 cm more

<sup>2</sup> Total weight including tools, footrests, anti-tippers and wheels

<sup>3</sup> Minimum usable weight including wheels, excluding tools, footrests, anti-tippers

<sup>4</sup> Models with attendant brakes 0.6 lbs. / 0.27 kg more,  
Models with drum brakes 1.9 lbs. / 0.9 kg more

All values are approximate.

## 11 Specialist repairs and servicing

We recommend that you have your **STRONGBACK 22S / STRONGBACK 24 / STRONGBACK 24HD** inspected by your specialist retailer at least once a year. In the event of malfunctions or defects, the wheelchair should be returned to the dealer for immediate rectification / repair. Upon request, you should provide the dealer with all the necessary information and documents for carrying out the repairs and maintenance.

| Serial number:                                    | Repairs / servicing carried out |  |  |  |  |
|---------------------------------------------------|---------------------------------|--|--|--|--|
| Date:                                             |                                 |  |  |  |  |
| <b>General</b>                                    |                                 |  |  |  |  |
| The wheelchair opens and folds easily.            |                                 |  |  |  |  |
| The wheelchair travels in a straight line.        |                                 |  |  |  |  |
| Push handles                                      |                                 |  |  |  |  |
| <b>Brakes</b>                                     |                                 |  |  |  |  |
| Wheel lock lever                                  |                                 |  |  |  |  |
| The wheels do not rub when moving.                |                                 |  |  |  |  |
| The brakes are easy to apply.                     |                                 |  |  |  |  |
| The brake locking function works perfectly.       |                                 |  |  |  |  |
| The brakes have no play in them.                  |                                 |  |  |  |  |
| <b>Spider joint</b>                               |                                 |  |  |  |  |
| Alignment                                         |                                 |  |  |  |  |
| All four wheels are in contact with the ground.   |                                 |  |  |  |  |
| <b>Armrests and side panels</b>                   |                                 |  |  |  |  |
| The side panels are securely in place.            |                                 |  |  |  |  |
| The armrest padding is undamaged.                 |                                 |  |  |  |  |
| <b>Rear wheels</b>                                |                                 |  |  |  |  |
| No significant lateral play when spinning freely. |                                 |  |  |  |  |
| Check condition of anti-friction bearings         |                                 |  |  |  |  |
| Check tire tread depth (> 1mm / 0.04")            |                                 |  |  |  |  |
| Check solid rubber tires for cracks / tears       |                                 |  |  |  |  |
| Check pressure and condition of pneumatic tires   |                                 |  |  |  |  |
| The Handrims are securely fixed.                  |                                 |  |  |  |  |
| <b>Front wheels</b>                               |                                 |  |  |  |  |
| Check condition of fork mounting                  |                                 |  |  |  |  |
| Check condition of anti-friction bearings         |                                 |  |  |  |  |
| <b>Seat and backrest upholstery</b>               |                                 |  |  |  |  |
| The Backrest upholstery is undamaged.             |                                 |  |  |  |  |
| The Seat upholstery is undamaged.                 |                                 |  |  |  |  |

(C=checked, RP=replaced, R=repaired)

Servicing carried out by:



Your specialist retailer



**International**

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