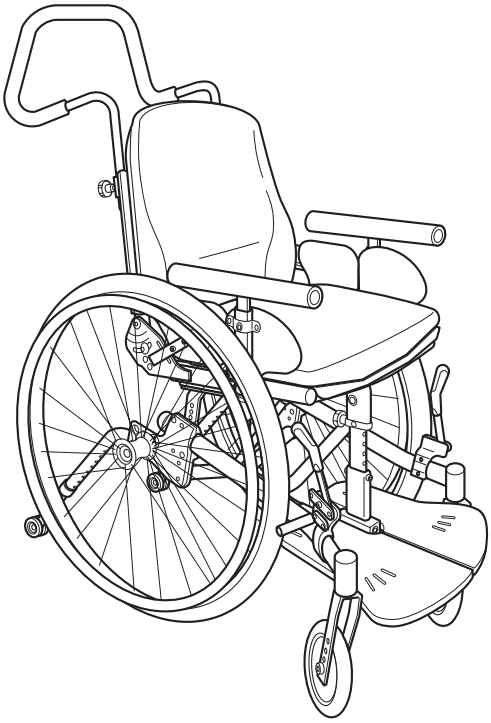
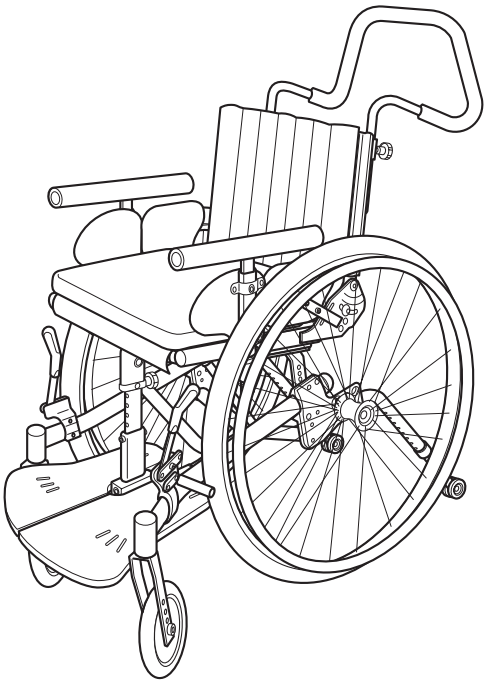


Wheeler
Manual



CE

English

Wheeler

Wheeler is a wheelchair for children and teenagers, and has many adjustment options and accessories. To ensure that the user benefits as much as possible from Wheeler, and in order to Wheeler's options justice, the chair must be tested and adjusted by competent personnel. The user and the assistant/parents must have received instructions for using Wheeler.

This manual includes a description of the parts of the chair, simple adjustment options, how to use Wheeler safely and how to transport the chair. It also describes how the most common accessories are adjusted. The manual must be read through thoroughly before the chair is used. We also include an accessories manual, that describes how all accessories are fitted and slightly more advances settings.

As Wheeler has many different components and versions of accessories, the appearance of the accessories you have for your Wheeler may differ from those shown.

NB!!!

Read the back cover of the instruction manual, which features a number of points affecting your personal safety. Read them carefully!

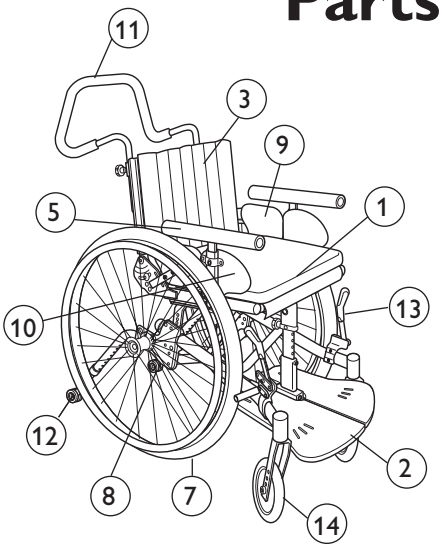
Invacare is only responsible for product changes carried out by personnel whom we authorise. We reserve the right to make any changes to equipment and specifications without prior notice.

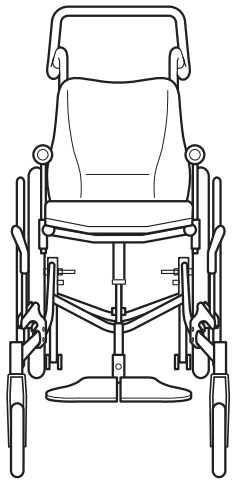
Delivery check

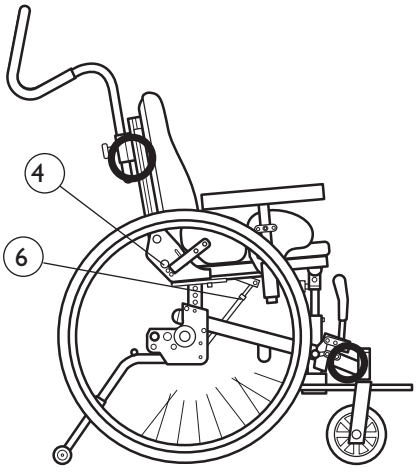
Check that all components match the delivery note. Any transport damage must be reported immediately to the transport company. Remember to keep the packaging until the transport company has checked the goods and a settlement has been reached.

Contents

Parts of the wheelchair







1. Seat
2. Footrest
3. Backrest
4. Backrest angle adjustment
5. Armrest
6. Seat angle adjustment
7. Drive wheel
8. Drive wheel plate
9. Hip support
10. Side guard
11. Push bar
12. Anti-tip device
13. Brake
14. Castors

Always lift the wheelchair by gripping the frame at the points shown in the diagram. This applies irrespective of whether the user is or is not in the chair.
Never lift the wheelchair by the removable armrests or the footrests. Ensure that the backrest and push bar are securely in place. See "Transport" for more information.

Wheeler

Seat width: 26, 29, 32, 35 cm
Seat depth: 26-38 cm

Upholstery and frame colours

Upholstery:
Blue plush ”Check pattern”
Yellow plush ”Teddy bear”
Black dartex

Frame colours: red shiny, blue glitter, yellow shimmer, black metallic, green shiny, orange, light red, light yellow, black, blue shiny.

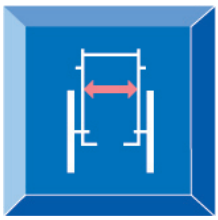
Equipment

Wheeler has a wide range of accessories and options. It is possible that some of the accessories are not available in certain countries.

Seat unit	Adjustable backrest Adjustable seat Comfort backrest Comfort seat Seating pad standard 3 cm Extra seat cover Seat plate only Back plate only
Seat angle adjustment	Mechanical Carer-operated with gas piston (operated by foot or hand)
Legrest	90° legrest Legrest for plaster casts Lower leg support Foot straps
Castors	Fixed / 100 mm -150 mm (4”, 5”, 6”) pneumatic or solid
Drive wheels	16”, 20”, 22”, 24”, pneumatic or solid
Brake	User-operated brake Carer-operated brake

Miscellaneous	Armrest with padded tubing or wide armrest pad Side guard Push handles or push bar Headrest, simple or shaped Pump Mudguard for 16" transport wheels or 20", 22", 24" drive wheels Activity table Stabilising table Trunk supports comfort backrest or adjustable for all backrests 4-point belt 4-degree camber Pommel Rucksack Spoke guard Reflectors

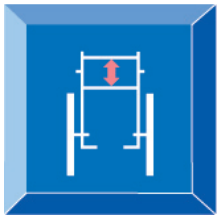
Technical data - Wheeler



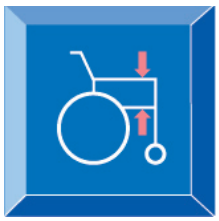
26, 29, 32, 35* cm

26-38 cm

39-50 cm



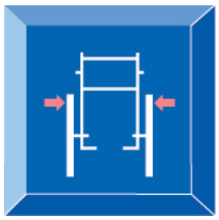
26-38 cm



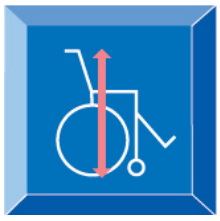
15-26 cm

17-40 cm

-4°-+30°

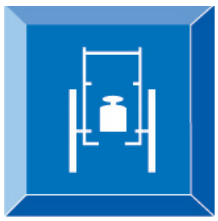


Seat width + 19 cm



Min. with 20" wheels: 85 cm
Max. with 24" wheels: 112 cm

20" wheels 69 cm
24" wheels 80 cm



14 kg

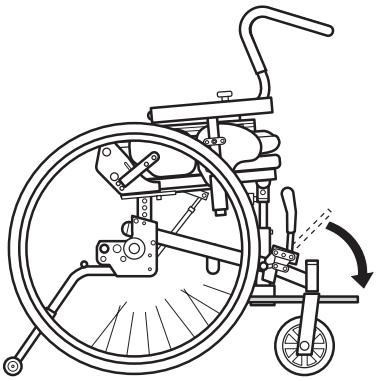
Max. 60 kg

Transport weight
Seat unit: 5 kg
Chassis: 5 kg
Drive wheels: 4 kg

* = +/- 3 cm

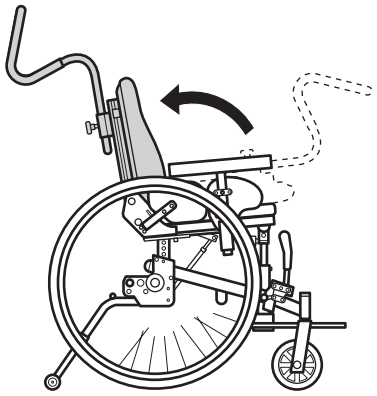
Assembly

1.



1. Fold down the foot plates.

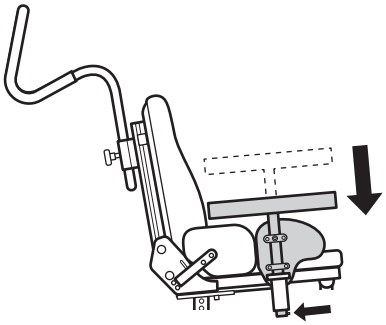
2.



2. Hold the backrest and pull it upwards until you hear it click.

Be careful not to trap your fingers.

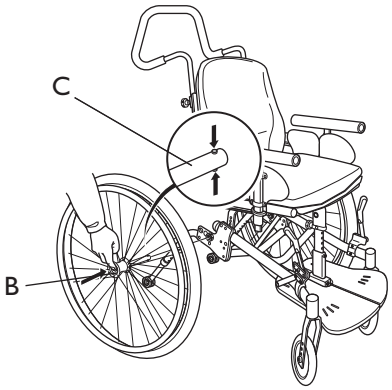
3.



3. Fit the armrests by first pressing in the lock button (A) and then pushing them down into the attachments on the sides of the wheelchair. Push down firmly until you feel that the armrests are properly secured.

Be careful not to trap your fingers.

4.



4. You fit the rear wheels by pressing the push button (B) in the middle of the hub and keeping it depressed whilst you insert the axle (C) into the rear wheel attachment of the positioning plate.

To check that the wheel has been properly secured, try to pull out the wheel after releasing the button. This should not be possible.

How to adjust your new Wheeler wheelchair

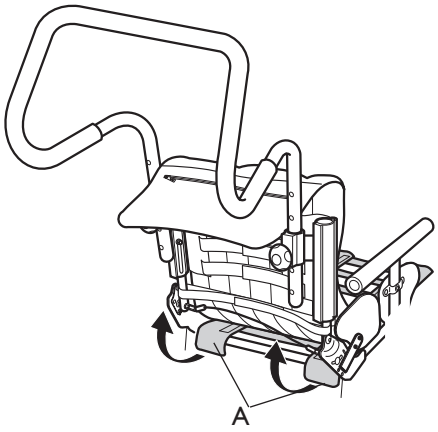
We suggest that you adjust Wheeler in the order below. The same numbered order is included in the list of contents, as well as in the descriptions of the different parts. The information below is to be seen as general guidelines and may differ considerably between different users, as everyone has different requirements for support and assistance.

Adjustment of	Reason
Seat	**Depth** This is to be adjusted to give the user sufficient seat depth to sit comfortably, as well as stability for the legs. If the seat depth is too short, it may be difficult for the user to keep his or her balance. **Form** The Velcro strips under the seat can be loosened if you want a fully or partially rounded form. If the user's knees are pressed together, the seat cover must be tightened. A completely flat seat is best, although slight rounding of the seat under the bottom may help for balance. **Width** The hip supports are to be adjusted to help keep the body in the centre of the Wheeler chair. They can be widened if body size changes or when the user wears thicker clothes.
Footrest	**Height** Correctly adjusted foot plate height is important for keeping balance in the whole body. When the height is correct, the thighs should rest relaxed against the seat. If the knee angle is 90°, this will give better seating stability. If the foot plate is too close to the castors, raise the seat (see below). If the child's legs are different lengths, you can adjust the foot plate to different heights, so that the child can sit straighter. **Depth** This is to be adjusted if the user's feet are to be further forward. **Angle** This is to be used if the ankle joint is stiff or if the foot cannot be level in relation to the seat for any other reason.
Backrest	**Height** This should not be adjusted higher than to the shoulder blades so that the arms are free to move and so that the user can use long strokes when propelling the chair. Sometimes the backrest must be raised further to help maintain balance in the upper body. **Form** The backrest upholstery can be rounded and formed to facilitate stability if necessary. A flat backrest is best with the option of slight curving by the lower back. The child should be able to hold his or her head upright. **Angle** For most children, the angle of the backrest is to be at 90° to the seating surface. If the child cannot hold up his or her head, the backrest can be angled backwards slightly. Another option is to angle the whole seat unit (see below).
Seat angle	The whole seating unit, including seat and backrest, can be angled to achieve a relaxed seating position. It can also be angled forwards for an active seating position, that facilitates getting in and out of the chair, for example. If the chair has mechanic seat angle adjustment, the seat can be set in a fixed position.
Armrest	**Height** Correctly adjusted armrest height gives the body support. **Width** To achieve a larger seating area and wider seat, the armrests can be moved sideways.
Seat height	To obtain the correct distance to the handrims, you can adjust the height. This enables the user to propel Wheeler with large strokes. If the wheels are too high, the child must move his or her shoulders upwards to a greater extent. If the wheels are too low, the child must work more with his or her upper body to propel Wheeler.
Propelling characteristics, balance	The whole seating unit can be moved backwards or forwards over the rear wheels, enabling the child to get nearer to the handrims. The further back the child sits, the more weight is applied to the drive wheels. This makes Wheeler easier to propel, but also increases the risk of the chair tipping. Fine adjustment is necessary. Use the anti-tip devices when testing to find the right balance setting. Always check that the child can easily cope with the new balance setting.

Settings
Seat
SEAT DEPTH

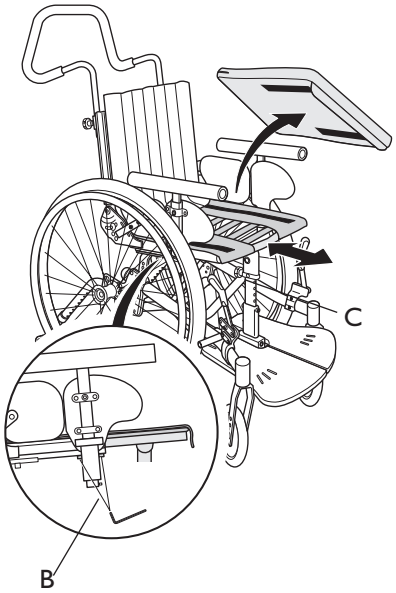
The depth of the seat can be adjusted by 12 cm. The distance between the hollow of the knee / calf and the seat pad is to be as short as possible, without the hollow of the knee/calf contacting the seat pad.

1.



1. If your Wheeler has adjustable upholstery, the upholstery tabs (A) are to be folded upwards first.

2.



2. Adjust the depth of the seat by removing the seat pad which is fastened with Velcro strips. The two screws (B) are then loosened on both sides of the armrest attachment on both sides of the chair. Take hold of the legrest tube (C) and pull the seat forwards or backwards, and then retighten the screws. Finally put the seat pad back into place.

When the seat is pulled forwards, the seat depth must not exceed 38 cm.

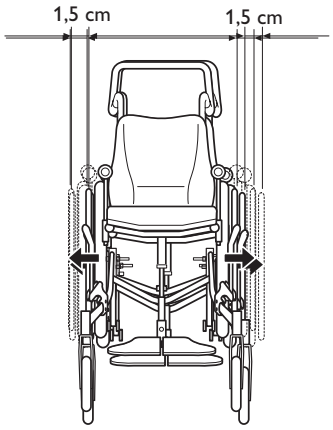
Be careful not to injure yourself on protruding components when you push the seat in as far as it will go.

SEAT SHAPE

The shape of the seat is adjusted using the Velcro strips. Loosen the Velcro strips to obtain a rounder shape. Tighten the Velcro strips to obtain a flatter seat. It is better that the seat is slightly too flat than far too rounded.

SEAT WIDTH

Wheeler is a wheelchair to grow in. The seat width can be adjusted by 3 cm, by moving the side supports and hip supports. It is important that the drive wheels are also moved outwards when you increase the seat width.



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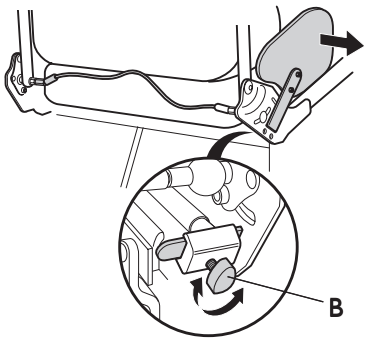

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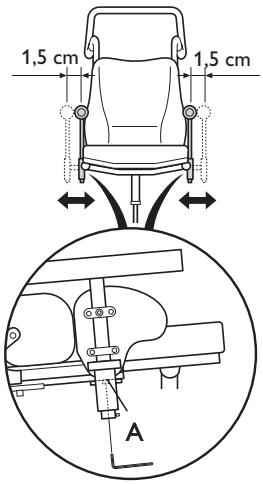
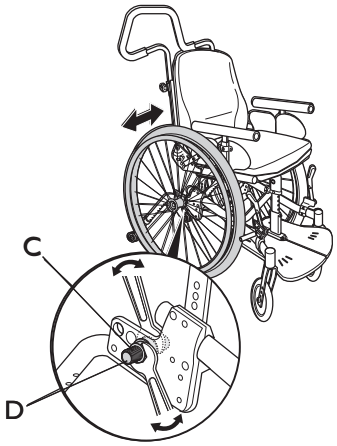


3.



Increase seat width

Hip supports

1. Loosen the knob (B) on the inside of the hip support attachment and move the hip support outwards an amount equal to the side guards.

Side guards

2. Loosen the screw (A) under the side guard on both sides. Move the side guard outwards. Tighten the screws.

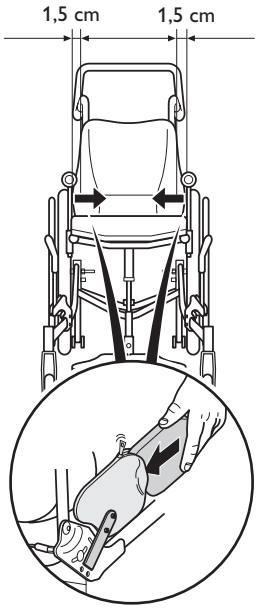
Drive wheels

3. Loosen the axle housing nut (C) using a spanner. Ensure that you tighten the axle housing nut securely when you have moved the drive wheels outwards an amount equal to the side guards and the hip supports.

3 mm of the casing (D) must protrude from the nut.

Check following when you are ready: There should not be risk of trapping fingers between rear wheels and fixed parts on the seat, for example, armrest. If there is a risk please adjust the distance, see "seat width"

1.



Reduce seat width

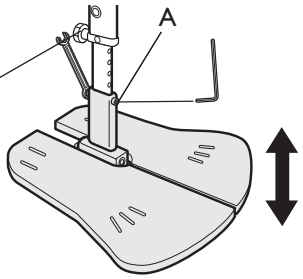
Hip supports

1. The hip support can be adjusted by adding a cushion to it. Open the zip of the hip support and insert the thicker cushion that is included in delivery.

Footrests

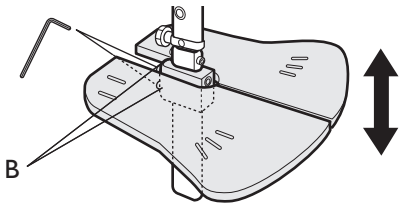
The height, depth and angle of the footrests can be adjusted.

1.



This knob is only used when the chair is to be collapsed. See page 25. Never move this knob when you adjust the footrests.

2.



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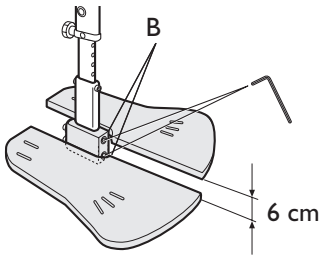

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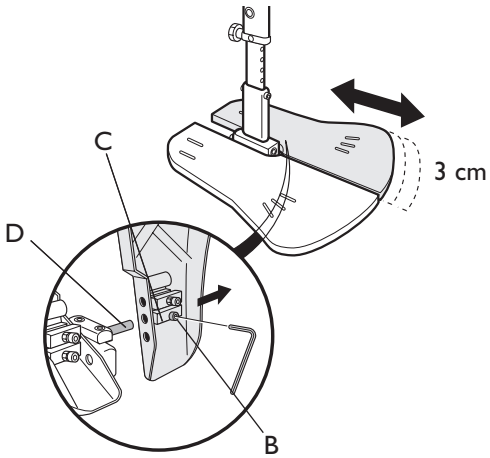

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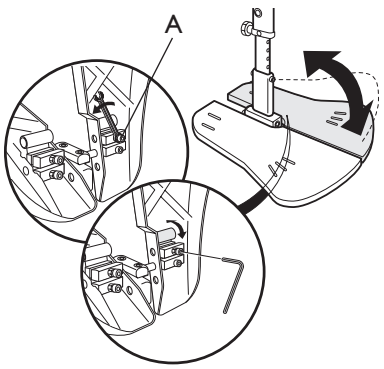


Height

1. When you adjust the height of the foot plates, the user is to sit in the chair with his or her thighs resting relaxed on the pad. Loosen and remove screw (A) whilst keeping the nut steady with a spanner. Move the attachment to the required height and tighten the screw.

Height - extra high foot plate

2. You can raise the foot plate additionally if the user has very short legs. First follow the procedure stated in point 1. Then loosened the screws (B) and adjust the whole attachment upwards to the required height. Tighten the screws. Note that this adjustment means that the foot plates cannot be folded upwards totally for transport.

Height - individual adjustment

3. Height is adjusted individually. Hold the foot plates, loosen the screw (B) and set the required height for each foot plate. Tighten the screws.

Depth

4. The depth of the foot plates can be adjusted to one of the three different positions. Remove the foot plate by loosening the screw (B) and pulling the foot plate straight outwards. Move the attachment (C). The attachment must be pressed against the footplate. Then fit the footplate into the new position. Axle (D) should be fitted, so two millimeters Then fit axle (D) in the new position and retighten the screw.

Tip! Angle the seat backwards, so that the foot plate is free of the lower frame tubes.

Angle

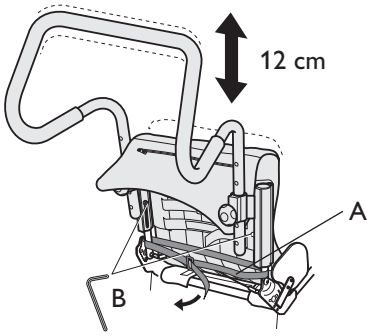
5. The angle of the foot plate can be adjusted 10 degrees upwards and 10 degrees downwards. Loosen the nut (A) and then alter the angle using an Allen key. Tighten.

If the foot glides away from the footplate, it could be possible that the foot got jammed between an obstacle and the wheelchair. Never load the foot plate when it is loose

Backrest

The height of the backrest can be altered with stepless adjustment. If your Wheeler has adjustable upholstery, the shape can also be adjusted.

1



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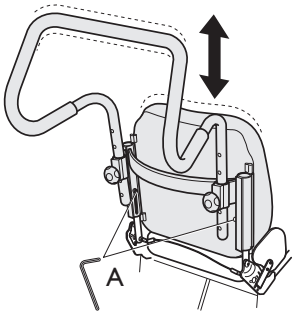

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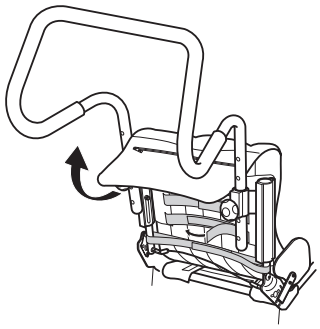


Height - Adjustable backrest

1. Lift up the backrest upholstery. Loosen the screws (B) that are hidden in the attachments on the backrest. Raise or lower the backrest to the required position. Loosen the Velcro strip (A) that is secured around the backrest tubing. If the backrest is to be lowered, this Velcro strip is no longer necessary and can be tucked away together with the lowest part of the upholstery. If the backrest is to be raised, the Velcro strip is secured higher up when the adjustment is complete. Tighten the screws.

Height - Comfort backrest

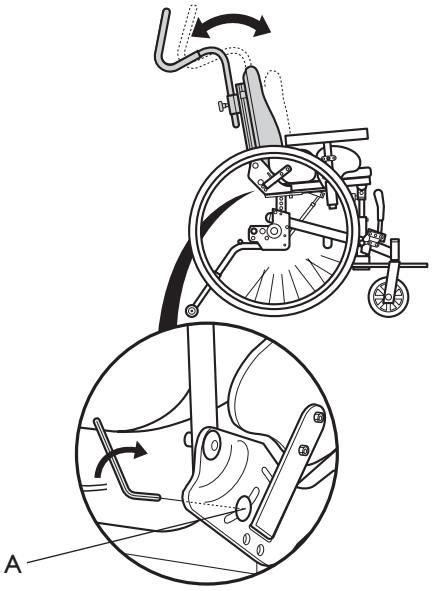
2. The height of the backrest is adjusted by loosening the two screws (A) that are hidden in the attachments on the backrest. Move the backrest to the required position and then tighten the screws.

Shape

3. The user is to sit in the chair when the shape is adjusted. Remove the backrest cover. Using the Velcro strips, the shape can be adjusted to meet the user's needs for support and comfort. For example, the strips in the small of the back can be tightened to provide good support for the small of the back and a more upright seating position. When all adjustments have been made, the backrest upholstery is folded back into place and secured using the Velcro strips. Remember that the balance of the chair is altered when the backrest is adjusted.

BACKREST ANGLE

1.



1. Adjust the angle of the backrest by loosening the screw (A) on the backrest attachment from the inside of both sides of the chair. The angle of the backrest can be altered by stepless adjustment 4 degrees forwards and 30 degrees backwards. Tighten the screws.

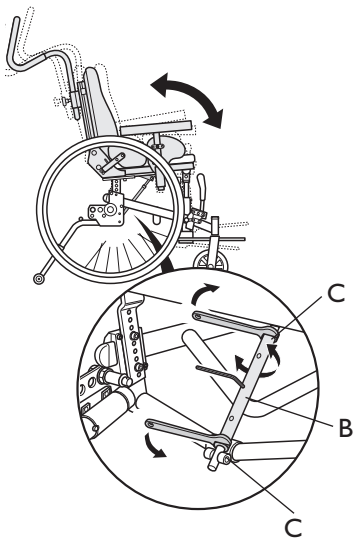
Angle adjustments of the backrest increases the risk of tipping over

Seat angle

The whole seat unit can be angled backwards to obtain a more relaxed position (resting position), or forwards to obtain a more active seating position for when the user is eating or moving. There are two different types of seat angle adjustment, mechanical and carer-operated.

MECHANICAL SEAT ANGLE ADJUSTMENT

The angle of the seat can be adjusted from -4 to +10 degrees.

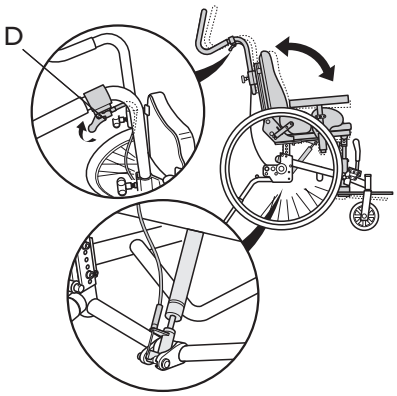


1. Insert the Allen key into the hole in the centre of the rod (B). Loosen the nuts (C) using a spanner. Rotate the Allen key to obtain the required seat angle. Tighten the nuts.

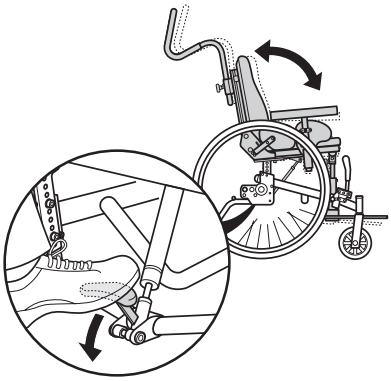
CARER-OPERATED ANGLE ADJUSTMENT

The angle of the seat can be adjusted from -4 to +30 degrees.

1.



2.



Hand-operated

1. Using a gas piston, you can adjust the angle of the whole seat unit by squeezing the left-hand lever (D) upwards, holding it pressed upwards and moving the backrest away from you or towards you until the required position is obtained. Then release the lever.

Foot-operated

2. Press the foot pedal and adjust the angle of the whole seat unit by taking hold of the push handles and moving the backrest towards or away from you until you obtain the required position. Then release the pedal.

Ensure that no one changes the angle of the chair by accident, e.g. when the child is playing.

If the seat is angled forwards and the backrest is angled backwards there is a risk that the user will slide out of the chair.

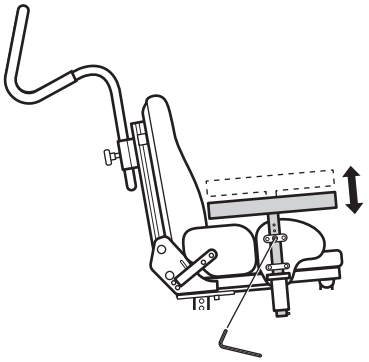
Risk of trapping between foot plate and castor when the seat is angled forward.

Armrest

ARMREST HEIGHT

The height of the armrests can be adjusted by 9 cm.

1

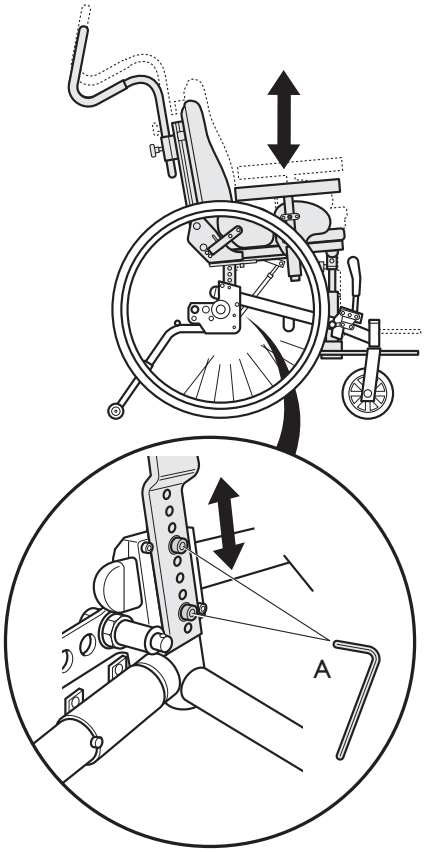


1. Loosen the screw on the middle of the armrest attachments on both sides of the chair and adjust to the required height. Tighten the screws.

Seat height

It is important that the seat height is adjusted so that the user can propel the chair easily. If the handrims are too low or too high, the chair will be more difficult to propel. The seat height can be adjusted by 8 cm.

1.

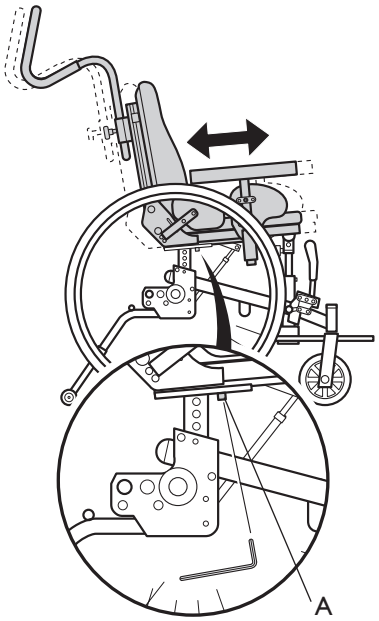


1. To change the seat height of Wheeler, the whole seat unit is moved. Loosen and remove the screws (A) from the lower seat attachment (behind the drive wheel plate) on both sides of the chair. Move the attachment to the new position and retighten the screws to secure it in place.

Tip! This adjustment will be simpler if the rear wheels are removed and the chair is laid on it back.

Driving characteristics

BALANCING



On Wheeler the whole seat can be moved to balance the chair. The depth of the seat can be moved by 5 cm. Loosen the screw (A) under the seat attachment on both sides of the chair.

Move the seat to the required position and tighten the screws. Use the anti-tip devices to assist you when you test to find the right balance position.

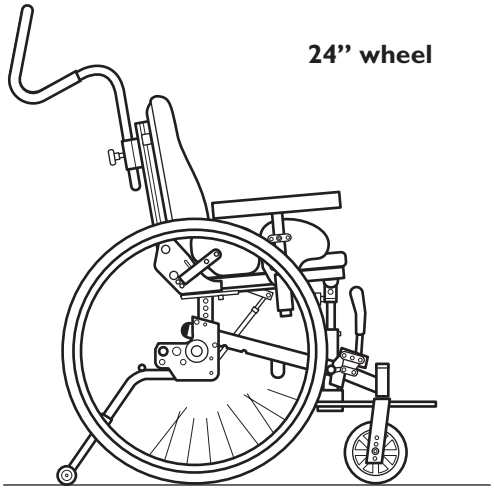
Check that the child can manage the new balance position. When the seat is moved forwards, the chair will be more stable, and when the seat is moved backwards, the chair will be easier to propel, but the risk of tipping will also be increased.

DRIVE WHEELS

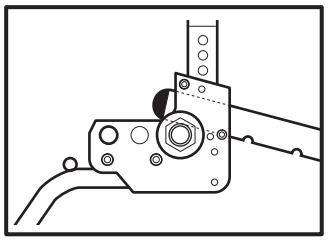
The rear wheel attachment can be moved either forwards or backwards. You have two positions to choose from for each size of rear wheel. If you fit the drive wheel in the frontal position, the wheelchair will be somewhat easier to propel but slightly more likely to tip. However, if you fit the rear wheel in the rear position, the chair will be more stable but slightly heavier to propel. Test to see what you think is best. If gas pistons are used for angle adjustment of the seat, the rear, stable position is to be used, as the balance is changed when the angle is adjusted. Note that the chair can also be balanced by moving the whole seat. See page 15.

Always adjust the anti-tip devices when you have altered the wheel position.

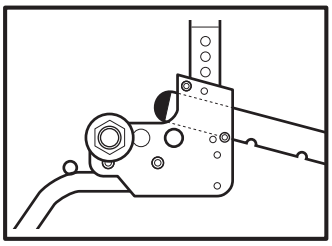
24" wheel



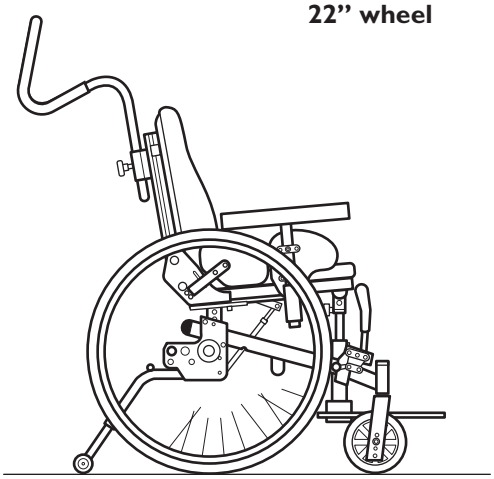
24" wheel, chair easy to propel, greater risk of tipping



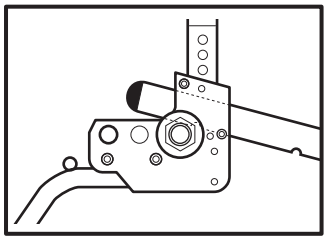
24" wheel, stable position



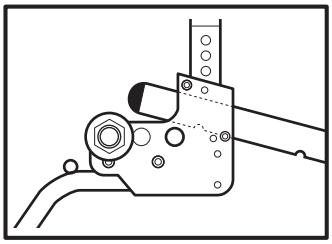
22" wheel



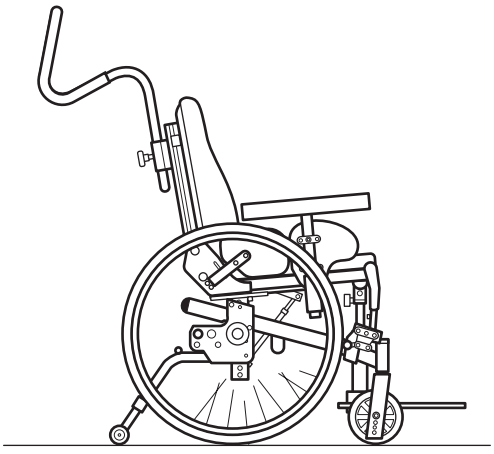
22" wheel, chair easy to propel, greater risk of tipping



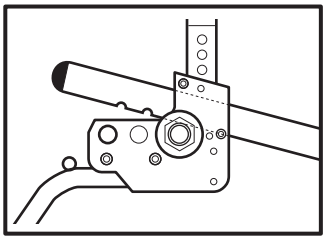
22" wheel, stable position



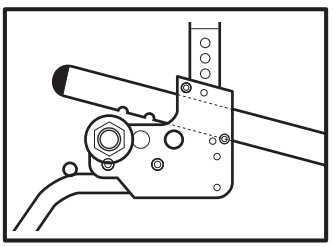
20" wheel



20" wheel, chair easy to propel, greater risk of tipping

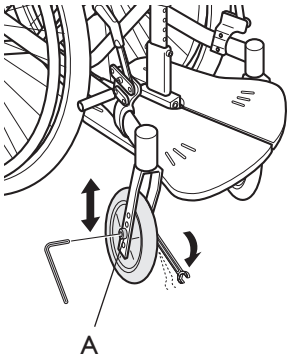


20" wheel, stable position

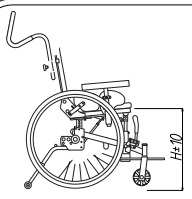
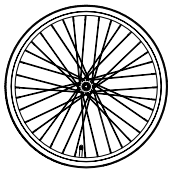
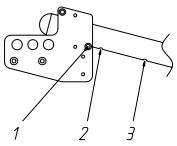
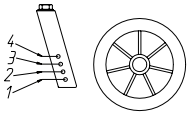


CASTORS

1.



1. **To move the castor, loosen the screw (A). Keep the nut steady** with a spanner. Move the wheel to the required position, fit the screw and tighten.

				
390	20"	3	1 2 3	100 120 150
403	20"	3	1 2 3	100 120 150
415	20"	3	1 2 3	100 120 150
428	20"	3	1 2 3	100 120 150
440	20"	3	1 2 3	100 120 150
453	20"	3	1 2 3	100 120 150
465	20"	3	1 2 3	100 120 150
413	22"	2	2 3	120 150
425	22"	2	2 3	120 150
438	22"	2	2 3	120 150
450	22"	2	2 3	120 150
463	22"	2	2 3	120 150
475	22"	2	2 3	120 150
488	22"	2	2 3	120 150
430	24"	1	1	120

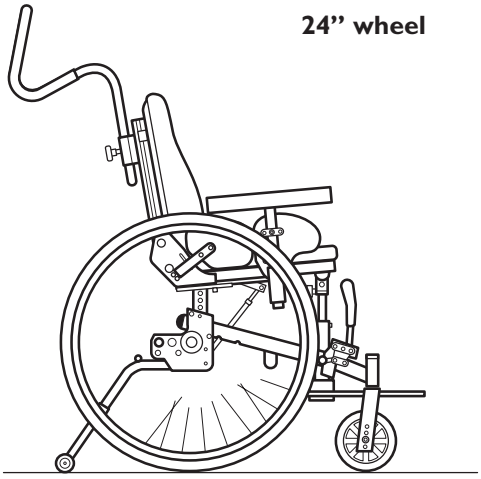
WHEN THE CHILD GROWS

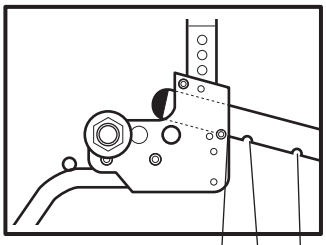
When the child grows, Wheeler grows too. The child in the wheelchair should be at the same height as his or her walking friends. The following adjustments have already been shown:

* Seat depth (page 8)
* Seat width (page 9)
* Backrest height (page 12)

As the child grows, you also replace the rear wheels with larger ones and change castor height, see page 17. The chassis tubing includes three notches for the rear wheel attachment. For 24" wheels, the rear wheel plate must always be fitted in the rear notch, for 22" wheels in the middle notch and for 20" wheels in the innermost notch. The only time that you need to move the rear wheel plate is when you change the size of rear wheels. The anti-tip devices must also be adjusted when you change wheel size, see page 21. Instructions on how to change rear wheels are included in the accessories manual.

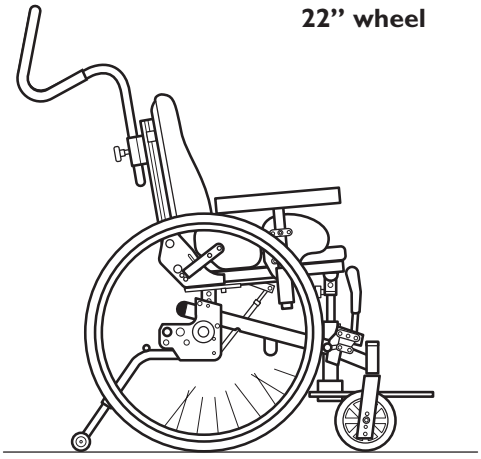
24" wheel





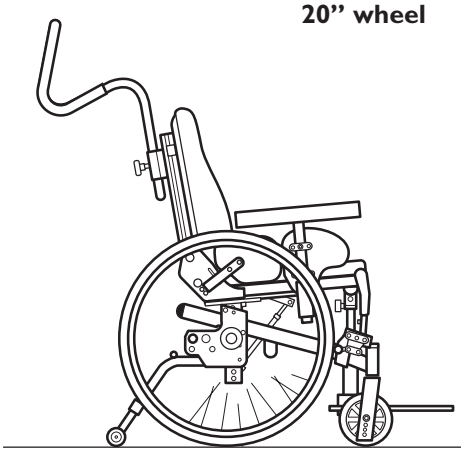
The drive wheel plate is placed in different positions for different sizes of drive wheel. 24" 22" 20"

22" wheel



Only for different rear wheel sizes. If the wheel is placed in a new position, without changing wheelsize, the chair will get defective driving characteristics.

20" wheel



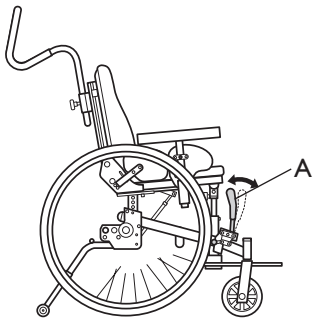
Other settings

BRAKES

Start by checking that the tyres have the correct air pressure (stated on the side of the tyre).

USER-OPERATED BRAKE

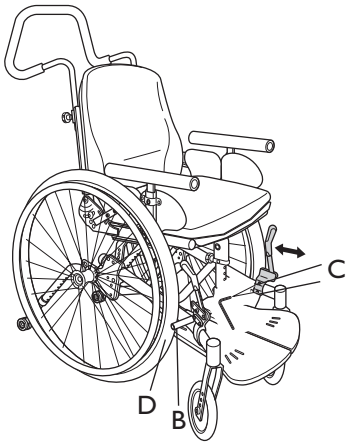
1.



1. The user-operated brake is a parking brake and is not intended for reducing speed when the chair is moving. To apply the brake to the chair, move the lever (A) forwards. To release the brake, move the lever backwards (towards you).

Be careful not to trap your fingers between brake pin and tyre.

2.

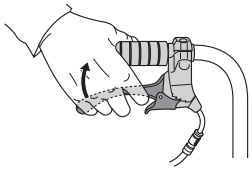


2. To obtain the correct braking effect, the brake pin (B) is to press into the tyre when you apply the brake. The depth of the brake may therefore need to be adjusted. Loosen the screws (C) and move the brake attachment to the required position. Retighten the screws (C). There is to be a distance of 3 mm between pin (B) and tyre (D).

Incorrect setting or use of the brake impairs the brake effect.

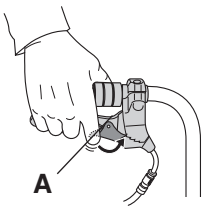
CARER-OPERATED BRAKE

1.



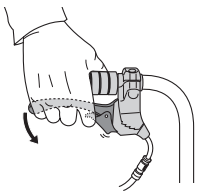
1. Apply the brake when pushing the chair: squeeze both brake handles upwards and the chair will be braked.

2.



2. Lock the brakes: squeeze the brake handle upwards and move the lock catch (A) upwards. Then release the handle.

3.

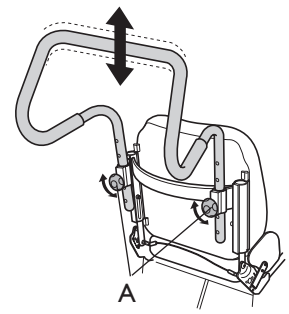


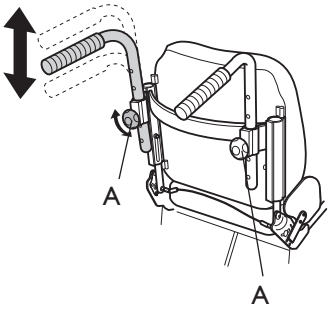
3. Release the brakes: squeeze the handle upwards and the lock catch will release automatically.

Incorrect setting or use of the brake impairs the brake effect.

PUSH BAR / PUSH HANDLES

1.





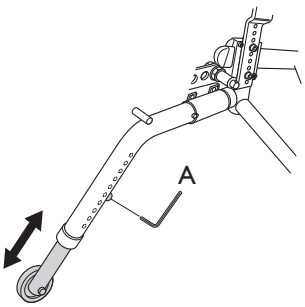
1. Adjust the height of the push bar / push handles by loosing the knobs (A) and then moving the push bar /push handles upwards or downwards until you obtain the required height. Tighten the knobs (A).

The push handles / push bar must not leave the notched part of the tubing. This is to ensure that the push bar /push handles are properly secured in the wheelchair.

ANTI-TIP DEVICES

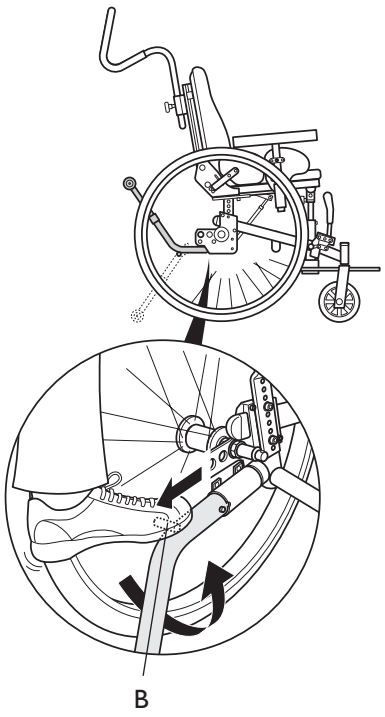
The anti-tip devices can be raised and lowered and are easy to adjust. The anti-tip devices must be adjusted when you have changed the wheel position.

1.



1. Loosen the screw (A) and adjust the anti-tip devices to the required position. Refit and retighten the screw (A).

2.

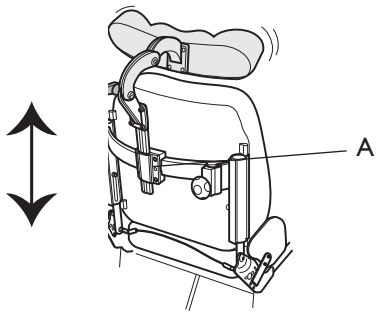


2. If you need to fold away the anti-tip devices, you can do this using your foot. Place your foot on the stem (B) and move the whole anti-tip device backwards so that the anti-tip device is angled inwards and upwards.

Always remember to fold down the anti-tip devices ready for use when you have had them folded out of the way. Pull out the stem (B) and fold down the anti-tip device.

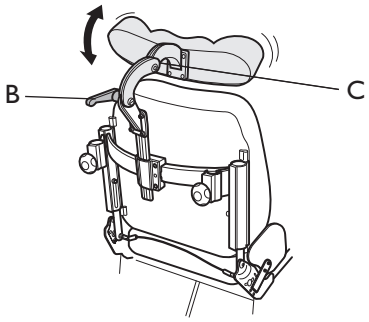
HEADREST

1.



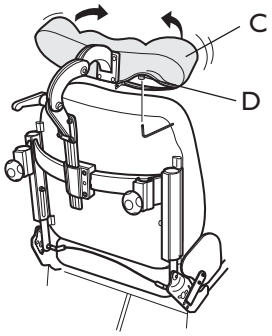
1. Height
Adjust the height by loosening the screw (A). Set the required height and retighten the screw.

2.



2. Adjust the angle of the whole headrest
Adjust the angle of the whole headrest by loosening the lever (B) or the screw (C). Then set the required angle and retighten.

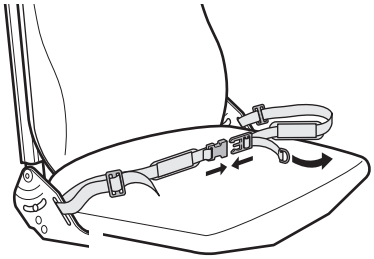
3.



3. Adjust the angle of the sides of the headrest
Adjust the angle of the ”wings” (C) of the headrest by unzipping the zip at the headrest attachment and loosening the screw (D). Set the required angle and close the zip.

PELVIC BELT

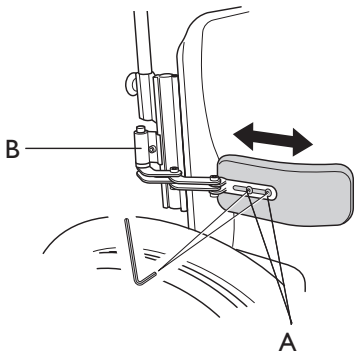
1.



1. Pelvic belt
The pelvis belt attachment is integrated into the backrest plate.

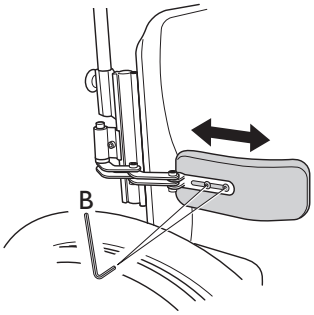
TRUNK SUPPORTS

1.



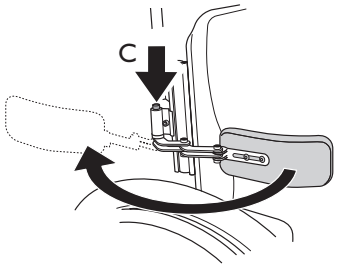
1. The height of the trunk supports is adjusted by first loosening the screw (A) and then moving the attachment (B) upwards or downwards until you obtain the required height. Tighten the screw. The height adjustment can be increased by placing the right-hand trunk support attachment + trunk support on the left-hand side and vice versa.

2.



2. The depth of the trunk supports can be adjusted by loosening the screws (B). Then move the support along its depth until you have found the required position. Tighten the screws. The hinges (C) are adjustable.

3.

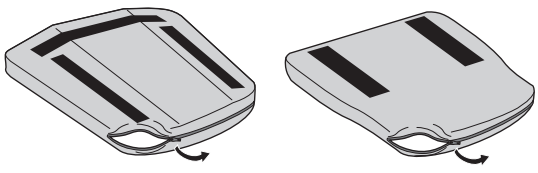


3. The trunk supports can be folded away so that they do not obstruct the user when he or she gets into or out of the chair. Press the button (C) and turn the trunk supports outwards and backwards.

Ensure that the user's arm does not get trapped during trunk support adjustment.

WASHING - UPHOLSTERY

1.

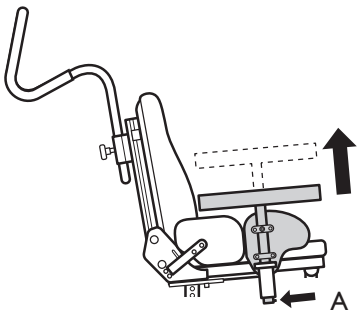


1. The backrest and seat covers are easy to remove and wash. Remove them by unzipping the zips and pulling the covers off the pads.

Transport

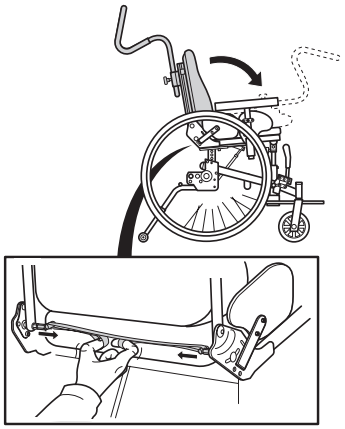
When you are to transport Wheeler, you can easily remove certain components to make the chair smaller and lighter. For transport by car, we recommend that the user is moved to a normal car seat, and does not remain seated in Wheeler.

1.



1. Remove the armrests. Press the button (A) and pull the armrest straight upwards.

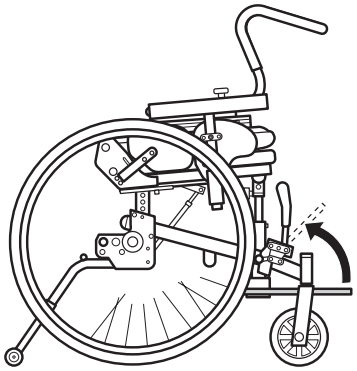
2.



2. Fold down the backrest as shown in the diagram whilst pushing the backrest forwards.

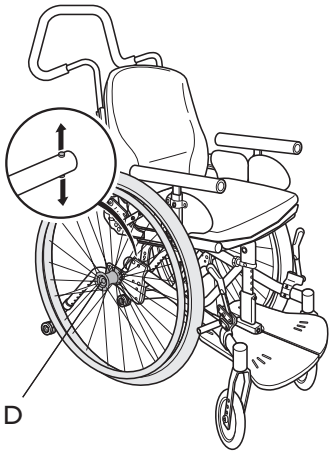
The straps must never be used as a handle when lifting the chair.

3.



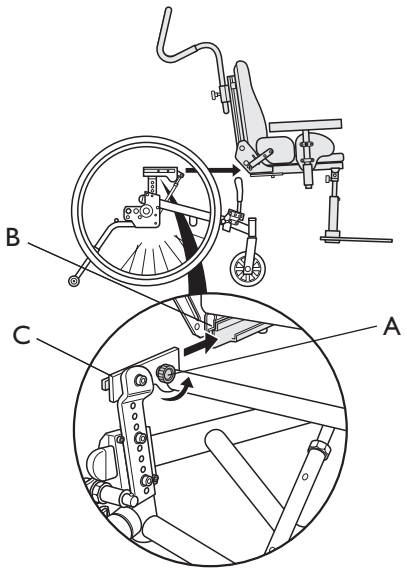
3. Fold up the foot plates.

4.



4. Remove the rear wheels by pressing the button in the middle of the hub (D) whilst pulling the wheel straight out. Fold away the anti-tip devices (see page 21)

5.



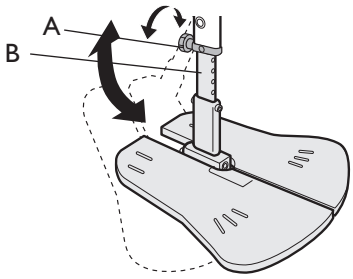
5. If required, the seat unit can be removed from the chassis by loosening the knob (A) by the seat attachment on both sides, and the seat can then be pulled straight forwards.

Be careful not to trap fingers, etc.

When the seat unit is to be refitted:
Feed the seat rail (B) into the guiding section (C) on both sides. Push in the seat as far as it will go. Then ensure that you tighten the knob securely.

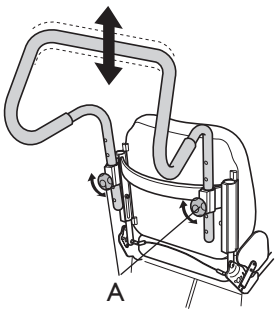
Check once a month that the knob is securely tightened.

6.



6. The foot plates can be folded away under the seat by loosening knob (A) and folding the bar upwards (B).

7.



7. Remove the push bar by loosening the knobs (D) and pull the bar straight upwards.

Transport of wheelchairs in vehicles

The Wheeler has been tested for safety in collisions according to ISO 7176-19:1999. The Wheeler can be used for transport in vehicles that have been specially adapted for this purpose. The wheelchair must be securely fastened in the vehicle according to the methods described on the following pages. **Remember that the best solution is always to move the user from the wheelchair into a normal car seat.**

TEST REPORT FROM DYNAMIC SAFETY RESTRAINT TEST (ISO 7176-19:1999)

Test no:	P201541	Customer: Invacare Rea AB
Date:	020318	
	Testing to be carried out	
Pulse specification	ISO/DIS 7176-19-1 (december 1999)	
Wheelchair	Manufacturer:	Invacare Rea AB
	Model:	Wheeler
	Weight:	17 kg
	Configuration:	Forward facing
Safety restraint device	Manufacturer:	Unwin Safety Systems
	Model:	4 Pt WWR/ATF/K/R
	Attachment device:	Unwin Low Profile Rail
User safety belt:	Manufacturer:	Unwin Safety Systems
	Model:	3-Pt
Test dummy	Hybrid III 5 %	
	Weight:	50 kg

Invacare® Rea® has chosen to work with Unwin, a well-known quality manufacturer of safety restraint devices for wheelchairs. The 4-point tie down belt is the most common and most suitable for its purpose on the market, and we have chosen Unwin's 4-point safety restraint for wheelchairs in combination with a 3-point double inertia reel harness. We cannot comment on other systems in a crash situation. For more information on how to use the belt, please see Unwin's handbook.

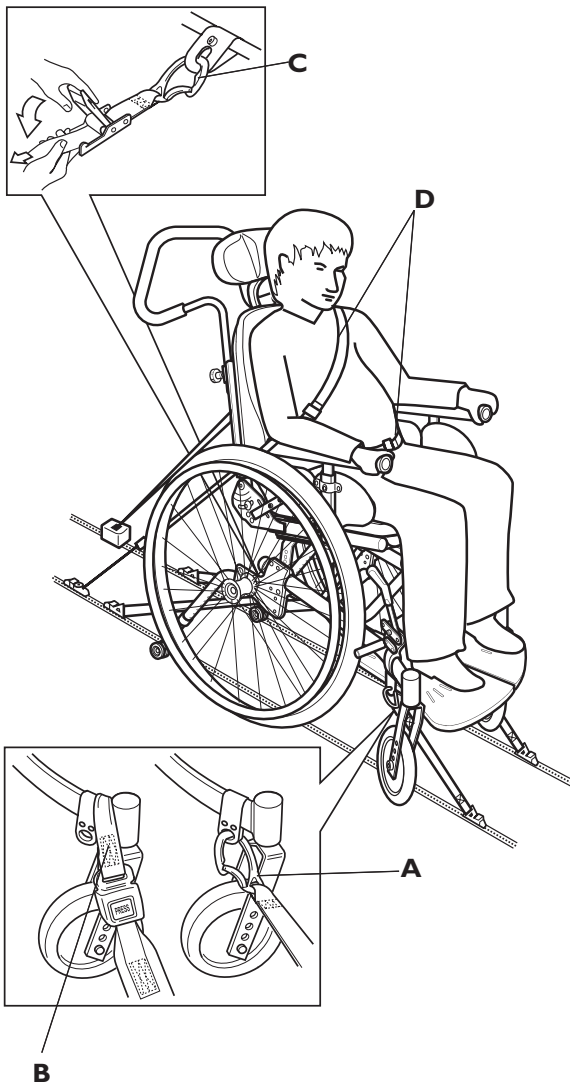
PLEASE NOTE!

- During transport Wheeler shall always be placed facing forward when the user sits in the wheelchair.

   **We recommend that the user always, when possible, sits in the vehicle's seat.**

- The user must be secured in the wheelchair with the wheelchair's seat belt and in the vehicle with the vehicle's inertia reel type harness system to prevent injury to the head and chest in case of collision or sudden braking.
- The backrest should be at an angle of 90 degrees.
- The anti-tip devices should be as close to the floor as possible.
- Headrest is recommended.
- The parking brakes of the chair must be applied when the wheelchair is secured and transported.
- To reduce the risk of loose objects becoming dislodged and injuring the passengers during transport, the tray and pommel must be removed and secured separately in the vehicle. Other extra equipment should be secured properly on the wheelchair, or removed from the chair and stored safely in the vehicle during transport.
- Please consult Invacare® Rea® if you have any questions on how the wheelchair is used for sitting in, in a vehicle.
- Changes or replacements should not be made to the safety details of the wheelchair, to the design, frame parts or components without first consulting the manufacturer.
- Wheeler must have transport attachments for restraint fastened on the rear frame when the wheelchair shall be transported in a vehicle. Transport attachments for the front frame are recommended but not necessary.

RESTRAINTS METHODS



A. Frontal restraints with snap hooks (on wheelchair with transport attachments on the front frame)

1. Attach the snap hooks on the frontal straps to the transport attachments on the front frame.
2. Release brakes and tension front straps by pulling the wheelchair backwards from the rear. Re-apply wheelchair brakes.

B. Frontal restraints with straps

1. Connect the frontal straps around the main frame of the wheelchair.
2. Release brakes and tension front straps by pulling the wheelchair backwards from the rear. Re-apply wheelchair brakes.

C. Rear restraints

1. Attach the snap hooks on the rear straps to the transport attachments on the rear frame.
3. Tighten the straps.

If rear transport attachments on the wheelchair are missing the user must be placed in the seat of the vehicle.

D. Fastening of pelvic belt and safety belt

1. Check that the pelvic belt on the wheelchair is correctly fastened.
2. Fasten the 3-point safety belt over the user.

If pelvic belt on the wheelchair is missing the user must be placed in the seat of the vehicle.

The safety belt should not be kept from the user's body by the parts of the wheelchair.

Safety instructions/propelling techniques

Wheeler must have been tested by the qualified person who has prescribed the wheelchair, after he or she has made the adjustments that the user requests, taking the build and needs of the user into account. You must also have received help in learning how best to use the wheelchair. Some simple tips are described below. Start by practising carefully until the user is familiar with the wheelchair's possibilities and limitations.

Move to/from the wheelchair

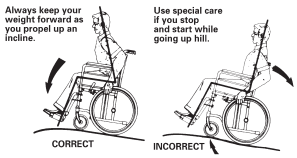
Propel the wheelchair as near as possible to the seat that you want to move to. Apply the brake. Remove the armrests. Wheeler's foot plates withstand a load of 60 kg, but the user's feet must be inside of the castors.

Note any protruding components, and make sure that the user does not injure himself or herself on them.

Stretching and bending

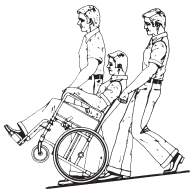
Propel the wheelchair as near as possible to the object. Do not apply the brake (it is better to roll backwards than to tip over).

Propelling up a slope



In order not to lose control of the steering and to avoid tipping backwards, you should always lean forwards whilst propelling up a slope. Propel the wheelchair forwards using short, quick strokes applied to the hand rims, in order to maintain speed and steering control.
Generally, help is needed on steep slopes.
If you have to stop on a slope, it is particularly important to ensure that you do not make any sudden or unexpected forward movements when you start moving the wheelchair forwards again. As the wheelchair is already leaning backwards, such a movement may cause the wheelchair to tip backwards.

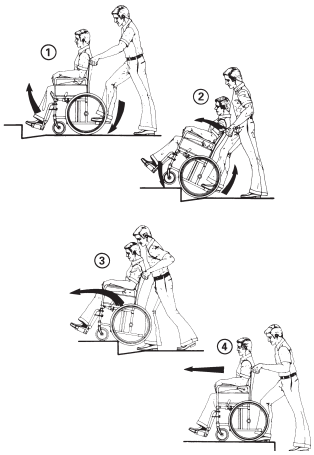
Propelling down a slope



We recommend that you obtain the help of one or more assistants when going down steep and wet slopes.

First check the slope to see if there are any particular risks, such as potholes, slippery sections, etc. Never use the user-operated brake to slow down. When you apply the brake on a downward slope, the wheels lock and the wheelchair can suddenly pull to one side, tip sideways or stop immediately, which may cause you to be thrown out of the chair. Always control the speed with the hand rims. Remember that the hand rims may become hot due to friction, and this may cause injury to your hands. Try to propel down the slope in a straight line as much as possible. Never change direction when propelling down a slope. Never propel up or down a slope crosswise.

Onto a kerb

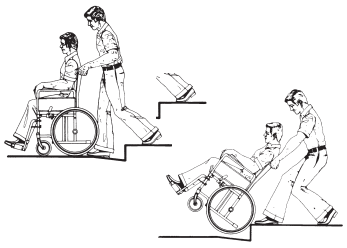


This method is for when the assistant is always behind the wheelchair and it creates the greatest safety for the user.
The following advice is for the assistant:
Illustration 1) Adjust the anti-tip devices upwards. Ensure that the user's feet rest securely on the footrests and cannot slide off. Then lean the wheelchair backwards and push it forwards against the kerb.
Illustration 2) Lower the frontal part of the wheelchair onto the pavement and place yourself as close to the chair as possible, before you lift up the whole wheelchair.
Illustration 3) Lean forward and lift/roll the wheelchair over the pavement edge.
Illustration 4) Lower the wheelchair onto the pavement so that the weight is divided on all four wheels. Ensure that the wheelchair does not roll backwards.

Off a kerb

Follow the procedure above, but in reverse order (step 4, 3, 2 and then 1) to move off a kerb. Don't forget to fold down the anti-tip devices.

Kerbs - alternative method



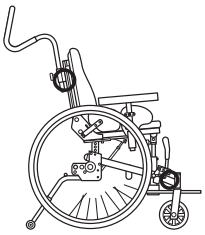
This method can be used when the kerb or step is low and only constitutes a minimal obstacle.

The assistant goes backwards onto the pavement and then pulls the wheelchair up onto the pavement. It is important for the assistant to use his or her body correctly to prevent injury. Tip the wheelchair backwards and roll the chair over the kerb onto the pavement. Take particular care if the kerb is wet or slippery.

Escalators

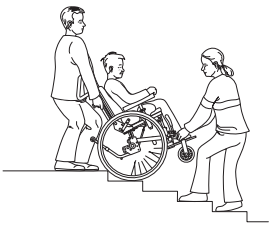
Do not use escalators when you are in the wheelchair. Find out whether there is a lift nearby.

Lifting



Always lift the wheelchair by its frame (according to the diagram). This applies irrespective if the lift is carried out with or without the user in the chair.
Never lift the wheelchair by the removable armrests or by the footrests. Ensure that the backrest and push bar are securely fastened.

Stairs



We advise you to avoid going up or down stairs in your wheelchair where possible, and to choose an alternative route instead.
We recommend that you receive help from two assistants to get up and down stairs. One assistant goes in front of the chair and holds the frame of the wheelchair, whilst the other assistant goes behind the chair and holds the push handle attachment. Check that the push handles/push bar are securely fixed in place before you start. Fold the anti-tip devices upwards. Balance the wheelchair on the drive wheels until the balance point is found. The wheelchair is then rolled down the stairs, step by step, by letting the drive wheels roll over the edge of each step. Assistants should remember to lift correctly, using their legs and keeping their backs as straight as possible.

Product description

Wheeler is largely made of aluminium. Backrest tubing and other components subjected to strain are made of high quality steel. Foot plates are made of plastic reinforced with glass fibre. Side supports, the seat plate and back plate are made of vacuum-formed ABS plastic. All metal and plastic parts can be recycled. Contact your local recycling agent. The transport packing is also possible to recycle.
Upholstery fabrics are available in dartex and plush. These fabrics are washable.
Wheeler is available in four seat widths. Each seat width can be made 3 cm wider or narrower. The drive wheels are quick release (QR) and are available in the sizes: 20", 22" and 24". You can also choose 16" transport wheels. The tyres are pneumatic or solid. The castors are fixed and are available in the sizes: 100 mm - 150 mm.

Areas of use

Wheeler is a manual wheelchair for children and teenagers. It is designed for users who actively use the wheelchair for a long period (several hours at a time) and for users who need the chair for shorter times and for transport. Wheeler is easy to propel and simple to handle, for users who propel the wheelchair and for assistants/carers. Wheeler has many adjustment options and accessories that give the user an ergonomically correct and variable seating position, which is necessary to enable the user to move the chair. As the child grows, the size of the seat can be adjusted. We also recommend that the drive wheels be replaced with larger ones when this becomes necessary. If the user propels Wheeler himself it is necessary to have the hands on the handrims and not on the tyre.
Wheeler can be used indoors and outdoors. If Wheeler is used extensively outdoors, we recommend large castors and that Wheeler is propelled on level surfaces (asphalt). When propelling the chair outdoors, the anti-tip devices must be folded down and activated. There is a risk of tipping when using the chair on sloping surfaces.

Guarantee

We supply a 3-year guarantee from the delivery date. The guarantee is valid from the day of delivery to the paying customer. Wear of parts is not included in the guarantee, for example upholstery, tyres, tubes, hand rims, castors etc.
Damages, caused by physical violence, carelessness or abnormal usage are excluded.
Damages, caused by heavier users than stated on the model plate, are excluded.

Maintenance instructions

Cleaning

Wipe metal parts and the upholstery regularly with a damp cloth. A mild detergent may be used. If necessary, the upholstery can be washed at 40°C. Normal washing powder/liquid may be used.

Touch-up paint

Touch-up paint is available if Wheeler becomes scratched and the paintwork needs to be improved.

Wheels and tyres

Wheel axles are to be wiped clean and lubricated with a drop of oil.
Pneumatic tyres have a car tyre valve and can be pumped up using the same type of pump that is used for cars. The air pressure is stated on the side of the tyre. The recommended air pressure for drive wheels:

Standard tyres:	3.5 bar 50 psi
Low profile tyres	7.0 bar 90 psi

Recommended air pressure for castors:

(200 mm)	8”	4.0 bar
(150 mm)	6”	2.5 bar

Technical servicing

Only original parts or those approved and fulfilling Invacare’s specifications may be used.

All technical servicing is to be carried out by an authorised wheelchair technician or by Invacare’s service department. The address and telephone number are on the back cover of the manual.

Examine all parts of the wheelchair once a week to check for cracks or other damage. If you discover damage, please contact Invacare immediately. The address and telephone number are on the back cover of this manual. A service manual is today not available
Screws and nuts are to be checked regularly and tightened securely (this applies to all loose parts).

Service life

We estimate that Wheeler has a normal service life span of five years. This life span may be considerably longer if the wheelchair is used to a limited extent, and if it is used with care, maintained and handled properly. The life span may be shorter if the wheelchair is subjected to extreme use.

Accidents/Near-accidents

Please inform Invacare immediately of any accidents or near-accidents that have been caused by this wheelchair and that have led to, or could have led to, personal injury.

Testing

Wheeler has been tested and approved by TÜV and is CE-marked according to the Medical Device Directive, EU Directive 93/42 EEC, EN 12183, EN 12182.
Upholstery and pads have been tested in accordance with ISO 7176-16.

This symbol means warning.

If the instruction is not followed, damage may be caused to the person and/or the product.

- Check the following before using the wheelchair:
  - that all parts are attached securely to the frame
  - that all levers and knobs are securely tightened
  - that all brakes and anti-tip devices work
- Always lift the wheelchair according to the instructions. See page 3.
- Always apply the brake to the wheelchair before the user gets into or out of the chair.
- Remember that the handrims may become hot as a result of friction and may cause damage to the user's hands.
- Angle adjustment of the seat increases the risk of tipping.
- Use the anti-tip devices are much as possible.
- Remember that the effectiveness of the brakes is reduced on wet and slippery surfaces or on downward slopes.
- Ensure that the drive wheels are securely attached. .
- The rear wheels must not be removed when the user is sitting in the chair.
- As regards adjustable backrest upholstery, the risk of the wheelchair tipping is increased the more that the Velcro strips on the backrest upholstery are slackened.
- Risk of tipping over when bags are hanged on the backrest.

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