

# serval

English user manual



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Congratulations on choosing the Serval as your new pushchair. It is a high quality R82 product and we are convinced that it will fully live up to your expectations.

The Serval is a unique pushchair for disabled children up to aprox 5 years of age. The Serval offers many adjustment possibilities and is therefore able to meet the individual needs of practically any child.

The Serval has passed the test: ANSI/RESNAWC/Vol. 1 with the following result: Score: 13/20 - Rating: B (good).

This manual will enable you to take full advantage of the many possibilities of the Serval.





### SAFFTY



The Serval has erned the CE-mark. This certifies that it meets all relevant European safety requirements.

Further the Serval is approved according to ISO 7176/19-2001, EN 12812 and ANSI/RESNA WC/Vol. 1 - section 19.

The durability of this product is 5 years when it is used on a daily basis. Hereafter we recommend that the product should be renovated (by R82 personnel) to extend the lifetime.



Remove the CE-mark, when rebuilding the product or when using other than original R82 spare parts and fittings.



The push chair is constructed for one user only. Do not place more than one user in the push chair.



Never leave your child unattended in this product. Ensure permanent supervision by an adjult. Incorrect use of the Serval, may cause serious injury on the user. Take care that all the fixations and adjustments are placed and fitted correctly and check it on a regular basis.



Any load attached to the handle, for instance a full shopping net, affects the stability of the push chair.



The latest version of the manual is always available online: www.r82.com



### **GUARANTEE**

The Serval is for 12 months guaranteed. The guarantee is only valid when using original R82 spare parts and fittings. All special adjustments must be made by R82.



### **TOOLS**

In the rucksack mounted on the Serval, there is a small bag with an 4 mm Allen key. This tool is used to perform some of the adjustments described in this manual. In the rucksack there is also a pump for the tyres.



### **MAINTENANCE**



Oil the swing away parts occasionally



Do not use any cleaning materials containing chlorine or methylated spirit.



Use a dry cloth to wipe and remove dirt and debris from the wheels.



All nuts and bolts on a Serval has to be checked and tightened every 6 months to avoid unnecessary failures, especially the black Allen screws fastening the front wheels.



All other maintenance consists of replacement of major parts, which should be carried out by approved repairer.



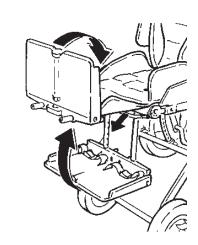
# GB SERVAL READY FOR USE

Serval is folded, when delivered, but is unfolded very easily:

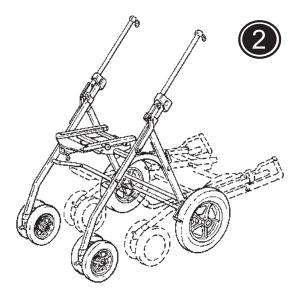
- 1) Pull out the black strap and tip the footsupport into horizontal position.
- 2) Unfold the frame the lock fittings "clicks" into place.
- 3) Mount the push brace and adjust the height.

Follow the instructions on the next pages, to position the back, seat and footplate.

Serval is now ready for use.

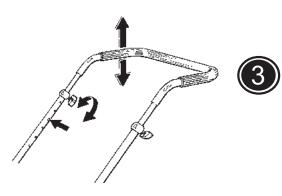








- \* Loosen the fingerscrew (A).
- \* Press the knob (B) in both sides, while pulling up the handle.
- \* Ensure that the knob (B) clicks into place in both sides and that the fingerscrew (A) is securely tightened.









# **GB** OUTDOOR FRAME

Normally we deliver the Serval pushchair on an outdoor frame. The outdoor frame is available with turnable or fixed front castor wheels and with large rear wheels. The Serval is available with either solid or air tires.

The Serval has good suspension, which make it easy to drive, even on broken ground.



# **GB** REVERSIBLE SEAT

The Tiger seat is reversible 180°. The easiest way is as follows:

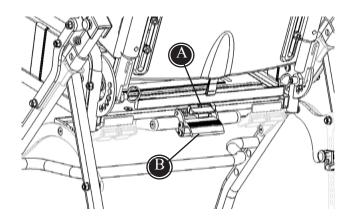


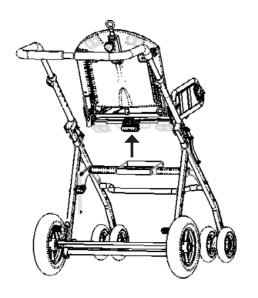
Remove the child before turning the seat around

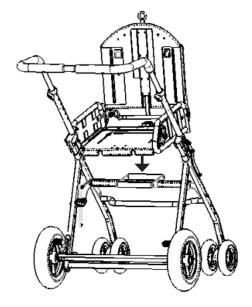
- \* Pull the handle (A) on the back, and the aluminium fitting (B) to release the seat from the frame.
- \* Lift and turn the seat 180°. Fit the seat in the slots of the adapter. The seat is reversed.
- \* Pull the handle (A) and click the seat into place.

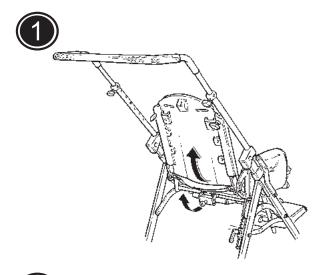


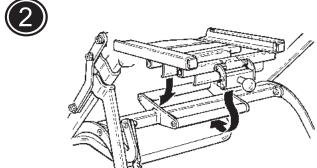
Make sure, that the seat is firmly mounted.













The Serval outdoorframe can be provided with a seat from the Panda Futura seating system.

- 1) Pull the handle on the back of the Serval seat, to release the seat from the frame.
- 2) Fit the Panda Futura adapter into the frame.
- 3) Fit the Panda Futura seat in the slots of the adapter.

Further, it is possible to mount the Serval seat on one of the frames from the Panda Futura system.

3





# GB BACK AND SEAT ANGLING

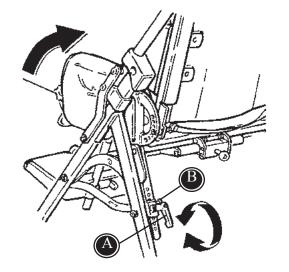
Turn the handle (A) and pull out the security nut (B) to angle the complete seat unit.

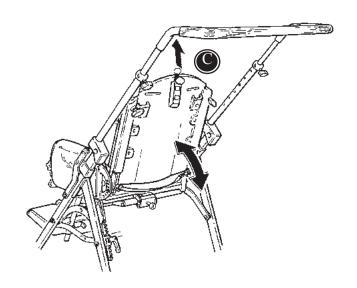
Fasten at the wanted position and make sure that the security nut "clicks" into place.

The back angles individually by pulling outwards on the strap on the back (C).

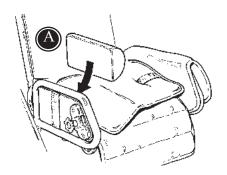


Hold onto the back to prevent it from suddenly erking when the strap is pulled.





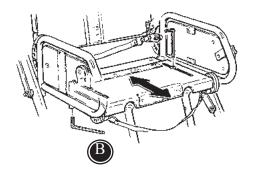






# BACK AND SEAT WIDTH

The seatwidth can be adjusted by placing an extra cushion at both sides below the seat cushion (A).





# **GB**) SEATDEPTH

To adjust the seatdepth loosen the Allen screws below the seat cushion (B).

Retighten (B) when the wanted seatdepth is reached.



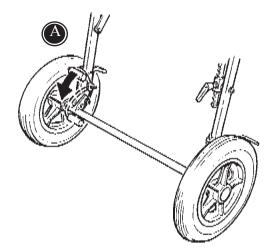
# BRAKES AND DIRECTIONAL STABILIZER

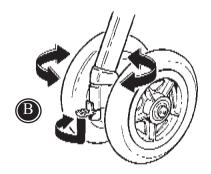
Activate the brakes on the Serval (A).

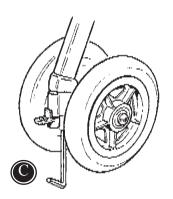
With the directional stabilizer the wheels can be locked in the driving position (B).



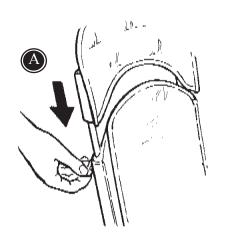
The black Allen screw (C) holding the frontwheel must be completely tightened, this has to be checked frequently.













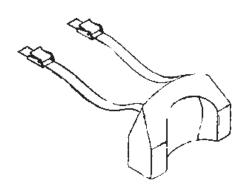
# **BACK EXTENSION**

The Serval can be equipped with a removable and height adjustable back extension (A).

Tighten the fingerscrews (A).



Make sure that the back extension is securely mounted.





## **HEADREST CUSHION**

To mount the headrest cushion:

Without back extension:

The straps are attached to the fixlocks at the top back.

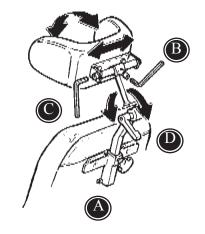
With back extension:

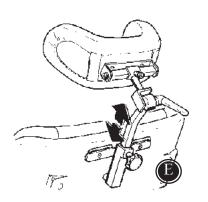
Lead the straps through the slots in the back and fasten in the buckle on the back.

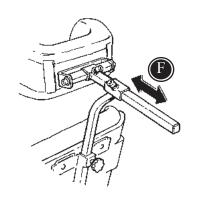


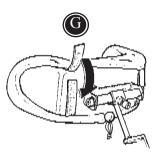
# **GB** HEAD REST

- A) The headsupport is mounted in a fitting on top the back. Tighten the fingerscrew.
- B) Lateral adjustment of the head support
- C) Angling the head support
- D) Angling the arm of the head support
- E) Height adjustment.
- B, C, D and E have to loose, to make correct headsupport adjustments. When the corrrect position is determined, tighten B, C, D and E.
- F) A head support with a "Swanneck" bar is available if the standard bar does not provide enough anterior support.
- G) Mount the cover on the head support.

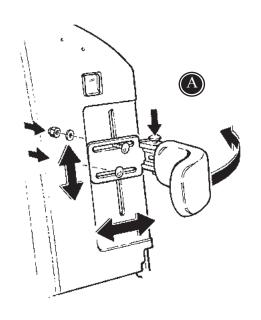














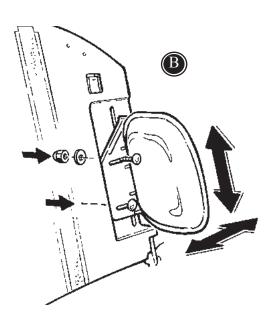
# SIDE SUPPORTS

Remove the back cushion and mount the side supports in the slots in the back.

- A) The swing away side supports can, when mounted be adjusted both in hight and width. To ease the placement of the child, swing the side supports away.
- B) The fixed side supports can, when mounted be adjusted both in hight and width.



We recommend to oil the swing away side supports occationally.





# **GB** FOLDING TOP

Dismount the back extention, if any.

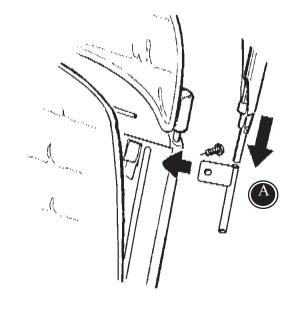
Place the fittings for the folding top in the back of the chair and tightened (A).

Push the folding top into the fittings.

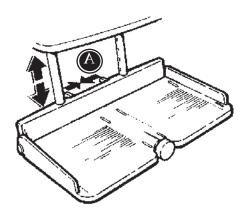
Now mount the back extention in the same fittings again.

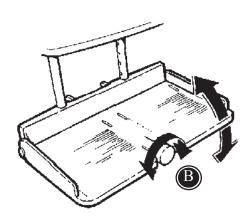


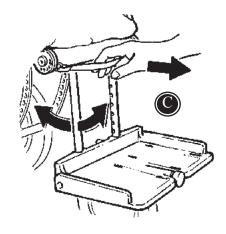
Do not grap hold of the folding top, when lifting the Serval.













# **FOOTREST**

The footrest should support the child and prevent the child from sliding out of the chair.



Do not use the footrest as treadle.

Squeeze the two handles (A) together and adjust the height.

Turn the handle (B) to angle the footplate.

To angle the footrest bar, pull out the black strap below the seat (C).



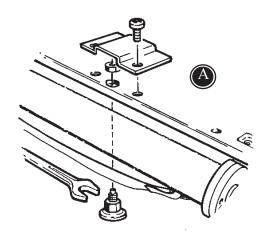
We recommend to oil the footrest regularly.

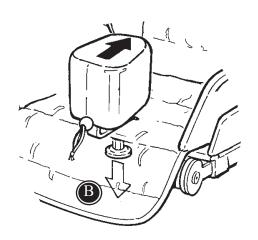


# GB POMMEL

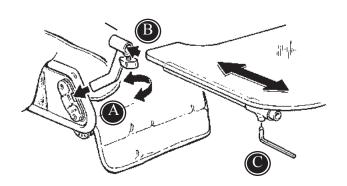
Mount the fittings to the seat under the seat cushion (A).

Pull downwards on the handle (B) and lead the abduction block through the hole in the cushion, into the fittings.











## **TRAY**

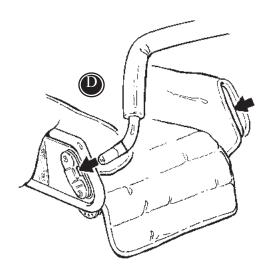
Mount the fittings on the sides and fasten with the finger screws (A).

Mount the tray afterwards (B).

Use the Allen key to loosen below the plate and the tray is depthadjustable (C).



Max. weight on the tray is 5 kg.





# **GB**) HAND BRACE

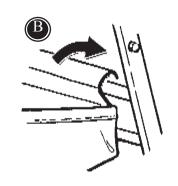
Place the hand brace in the fittings on both sides and fasten with the finger screws (D).

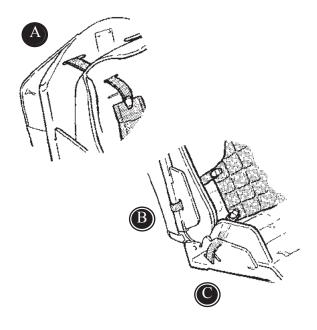


# **GB** SHOPPING BASKET

- A) Place the shopping on the frame under the seat.
- B) Attach the shopping basket to the frame by fastening with velcro around the crossbar.









### **VEST**

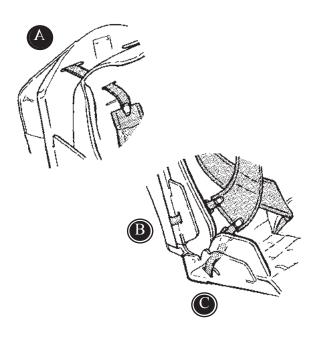
Lead the shoulder straps through the cushion and the holes in the back (A). Fasten in the buckles on the back.

Lead the side straps through the cushion and the holes in the sidesupports (B). Fasten in the buckle on the back.

Lead the lower straps through the cushion and the holes in the seat (C). Fasten in the buckles.



Take care that all the fixations and adjustments are placed and fitted correctly and check it on a regular basis.





## **CROSSVEST**

Lead the shoulder straps through the cushion and the holes in the back (A). Fasten in the buckles on the back.

Lead the side straps through the cushion and the holes in the sidesupports (B). Fasten in the buckle on the back.

Lead the lower straps through the cushion and the holes in the seat (C). Fasten in the buckles.



Take care that all the fixations and adjustments are placed and fitted correctly and check it on a regular basis.

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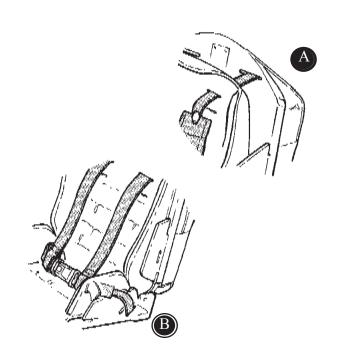
### H-BELT

Lead the shoulder straps through the cushion and the holes in the back (A) and fasten in the buckles.

Lead the side straps through the cushion and the holes in the seat and fasten in the buckles (B).



Take care that all the fixations and adjustments are placed and fitted correctly and check it on a regular basis.





# GB) ABDUCTION BELT

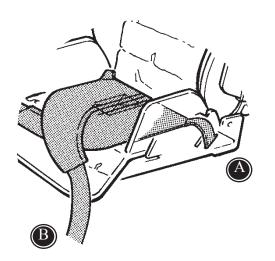
Place the abduction belt flat on the seat as shown. Lead the rear straps (A) past the cushion and through the holes in the seat. Fasten with the buckles under the seat.

Place the child and bring the straps (B) up between the childs thighs and around the back of the chair.

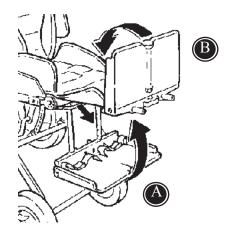
Fasten the straps in the buckles on the back.

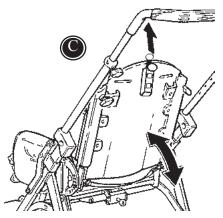


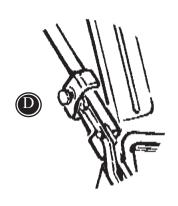
Take care that all the fixations and adjustments are placed and fitted correctly and check it on a regular basis.

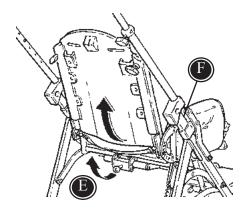














### ) FOLDING THE SERVAL

The Serval is folded/unfolded very easily and therefore easy to bring anywhere.

There are two ways to fold the Serval:

- 1) with the seat on the frame
- 2) the seat is dismounted before folding

### With the seat on the frame:

- A) Pull out the black strap and tip the footsupport into a horizontal position.
- B) Fold the footplate forwards to a horizontal position.
- C) Pull out the black strap on the backside and the back can be folded.
- D) Press the buttons at both sides of the handle and fold.

### With the seat dismounted:

To dismount the seat, use the handle on the back of the chair. Then follow step (D).



When folding the Serval, please be careful not to get fingers caught between the fitting and the frame (F).



To fold the Serval completely, remove folding top, tray, shopping basket and hand brace, if any.



# GB TRANSPORTATION IN MOTOR VEHICLES 1/3

The Serval is approved for transporting children in motor vehicles, when the wheelchair is placed in forward-facing position.

The Serval is not delivered with hip-belt needed to secure the user in the pushchair. The complete weight of the pushchair is 21,4 kg and it has a average lateral stability test result of 7 mm. The Serval has passed the test: ANSI/RESNA WC/Vol. 1 with the following result: Score: 13/20 - Rating: B (good).



The approval is not valid on special made chairs.



The child should transfer to the vehicle seat and use the vehicle-installed restraint system whenever it is feasible.



The wheelchair has been dynamically tested according to ANSI/RESNA WC/Vol. 1-1998, section 6.4.1, litra c.



Use an approved 3-point belt in the wheelchair. Restraints should not be held away from the body by wheelchair components such as armrests or wheels.



All accessories has to be removed from the wheelchair and secured separately in the vehicle. Accessories which can not be removed, has to be secured to the wheelchair but positioned away from the child with energy-absorbing padding placed between the accessories and the child.



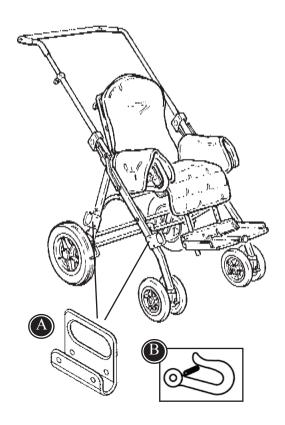
Alterations or substitutions should not be made to the wheelchair without consulting the dealer.

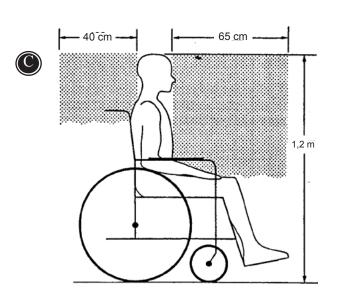


The wheelchair should be inspected by the dealer before reuse following involvement in any type of vehicle impact.









# TRANSPORTATION IN MOTOR VEHICLES 2/3

### Secure the Serval in the vehicle:

- Mount the 4-point strap-type tiedown system in the vehicle. (Follow the manufacture instructions)
- \* Mount the two fittings (A) with the symbol (B) on both sides of the pushchair.
- \* Secure the pushchair to the vehicle, using the 4-point strap-type tiedown system. Use either a hook or a strap in the fitting (A).



Use a 4-point strap-type tiedown system approved according to ISO 10542-2 and SAE J2249.

### **Transportation**:

- \* Remove all accessories from the pushchair before transportation.
- \* Place the child in forward-facing position.
- \* The pushchair is approved for transportation at max load 27,3 kg.



Be aware of the recommended safety zone (F) when moving children in vehicles.

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# GB TRANSPORTATION IN MOTOR VEHICLES 3/3

### Secure the child in the pushchair:

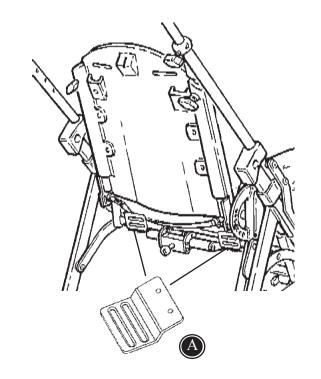
- \* Mount the two fittings (A), for the approved hip-belt, on the back of the pushchair.
- \* Mount the approved hip-belt in the fittings (A) and fasten the user in the puchchair. The angle on the hip-belt has to be according to drawing (B).
- \* Use the 3-point belt as shown on drawing (D) to secure the user. The belt restraints should be adjusted as tightly as possible, consistent with user comfort. Further the belt webbing should not be twisted when in use.
- \* We recommend to angle the seat 10° and back 21° to the back.

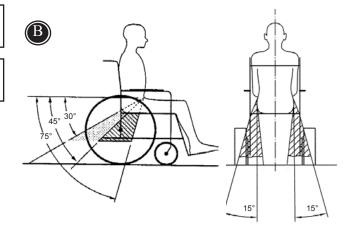


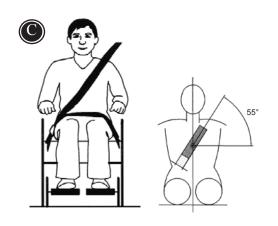
Do not angle the back more than 30° to the back, unless it is absolutely necessary.



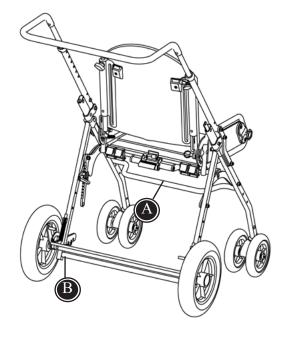
Use a hip-belt and a 3-point belt approved according to ISO 10542-1 or SAE J2249.













### A) Serial number

The label is placed in the mittle, on the througgoing bar, below the seat.

### B) Manufacturer

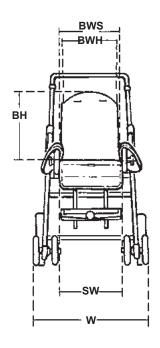
The label is placed to the left, on the througgoing bar on the frame.

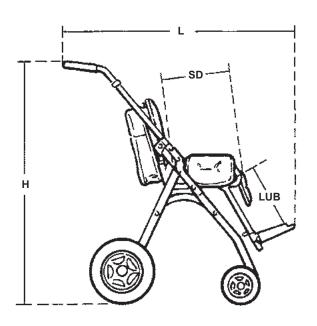












# GB MEASUREMENTS

		Size 1	Size 2
(W)	Width	53 cm	64 cm
(H)	Height	92 - 103 cm	92 - 103 cm
(L)	Length	104 - 114 cm	106 - 116 cm
(LUB)	Length, crus	10 - 29 cm	10 - 29 cm
(SW)	Seat width, max.	28 cm	33 cm
(SD)	Seat depth	20 - 32 cm	25 - 38 cm
(BWH)	Back width, at hips	20 - 26 cm	26 - 32 cm
(BWS)	Back width, at shoulders	30 cm	36 cm
(BH)	Back height	34 cm	40 cm
	Height, folded	41 cm	41 cm
	Length, folded	82 - 92 cm	82 - 92 cm
	Weight, frame	11 kg	11 kg
	Weight, seat	6,5 kg	7,5 kg
	Max load	35 kg	50 kg
	Max load in rucksack	15 kg	15 kg
	Max load in shopping basket	15 kg	15 kg
	Angles	Footrest bar	90°- 42°
		Back	23°- 65°
		Seat	-19°- 31°





### TECHNICAL DATA

Frame: Polyestercoated Steel 37, (push brace & frame)

Chromium-plated Steel 37 (seat adjustment fittings)

Plastic parts: PP polypropylene with 20% & 30% glass.

PA polyamide with 15% glass.

Cushion: Foam: Made of flame-retardant Alveolux, Pulyolefin foam

Cover: Made of flame-retardant Comfort material



### **TEST RESULT**

### **Purpose**

This test evaluates a wheelchair with regard to the ease of installation, occupant restraint fit and contact, and the provision of clear paths for vehicle-anchored occupant restraint system.

### Methods

The test procedures of Annex E of Section 19, ANSI/RESNA WC Vol.1 were used to secure the wheelchair to the test platform and position an ATD in the wheelchair. A surrogate three-point belt occupant restraint system was positioned on the ATD according to the specifications: Results:

WC/19 clause	Description of Chriteria	Rating	Score	Max. possible
E.1 E.2 E.3 E.4 E.5 E.6 E.7 E.8	Overall Ease of Belt Positioning Pelvic Belt Contact Shoulder Belt Contact Pelvic Belt Contact Locations Shoulder Belt Contact Locations Pelvic Belt Angles Pelvic Belt Clear Path Pelvic Belt Contact w/Sharp Edges	Difficult Excellent Contact Excellent Contact Poor Location Excellent Location Excellent Angle (45°) Good Poor	2 3 3 0 2 2 1 0	4 3 3 2 2 2 2 2 2
Overall		B = Good	13	20



**PRODUCER** 

R82 A/S Parallelvej 3 DK- 8751 Gedved

(GB)	DISTRIBUTOR	



### GB) STAIN REMOVAL GUIDE

The Serval cushion is removable and can be washed at max. 30°. It is important to keep the frame clean to maintain the validity of the chair.

#### BLOOD

Wasoff blood with cold water. If this fails to help, add a neutral kitchen detergent.

#### INK

Remove as much as possible with absorbent paper. Clean with 20% denatured alcohol and wash with water to which a neutral kitchen detergent has been added.

### CHOCOLATE AND CONFETIONARY

Dab with lukewarm water

### **GRASS AND VEGETABLES**

Dab with lukewarm water with or without a neutral kitchen detergent.

### COFFEE, TEA AND MILK

Remove as much as possible with absorbent paper. Dab with water containing a neutral kitchen detergent.

### **BALLPOINT PEN AND COSMETICS**

Clean with alcohol

#### NAIL POLISH

Dab with nail polish remover. Use acetone if this fails to help.

### OIL AND GREASE

First sprinkle talcum on the spot and leave. Then brush away. Finally, dab carefully with a cloth mostened with benzen or alcohol.

### SHOE POLISH

Dab carefully with a cloth moistened with benzene or alcohol.

### JAM, SYRUP, FRUIT AND JUICE

First remove as much as possible with a spoon. Then dab with lukewarm water.

### WINE AND SPIRITS

First remove as much as possible with absorbent paper. Then dab with water containing a neutral kitchen detergent. Finally, rinse with dilutet denatured alcohol.

### PAINT. OILBASED

First clean with turpentine. Then dab with water containing a neutral kitchen detergent. Seek expert advice if the spot is old.

### PAINT, WATERBASED

Dab with cold water containing a neutral kitchen detergent. Seek expert advice if the spot is old.





