# WHEELCHAIRS "DOLPHIN" & "SHARK"

**User's Manual** 





Manufacturer: Mobilex A/S Noerskovvej 1 8660 Skanderborg, Denmark www.mobilex-care.com

## **INDEX**

- 1. General information
- 2. Wheelchair description
- 3. Operation of wheelchair elements
- 4. Moving on the wheelchair
- 5. Wheelchair transportation
- 6. Maintenance
- 7. Solving of common problems
- 8. Guarantee
- 9. Technical parameters

Issue: 2008-09

## 1 GENERAL INFORMATION

Please read this user's manual carefully, to correctly and safely use your wheelchair.

The wheelchair "DOLPHIN" has been designed for persons with limited motion abbilities, it enables them transportation and moving, can be used indoor as well as outdoor. Users can move with the wheelchair independently or with a help of attendant.

Wheelchair has been tested and fulfils all requirements imposed by the law. Materials used in the wheelchair fulfil strength requirements. Upon a correct usage of the wheelchair we foresee its failure-free work for years.

## Wheelchair provides:

A comfortable transportation and storage thanks to its crossed frame structure and wheels with a quick-release axel

Easiness of manoeuvring

Easy transfer to - and out of the wheelchair

The durability and the solidity of the structure.

## Proper use:

Wheelchair "Dolphin" is designed for transportation of of physically handicapped persons. Any other use is prohibited.

## 2 WHEELCHAIR DESCRIPTION

The wheelchair consists of the following elements (Fig. 1):

- 1. Push handles –height-adjustable, enabling the attendant manoeuvring the wheelchair.
- 2. Backrest made of smooth incombustible material, enabling also easy upholstery cleaning.
- 3. Armrest adjustable in height and elevable. It is used as a comfortable support of forearms. It also facilitates getting in and out of the wheelchair.
- 4. Main wheels Majority of the user's weight rests on these 24 inches pneumatic wheels. Wheels can be easily take off, which facilitates the transportation of the wheelchair.
- 5. Push rim Thanks to push rims fastened to main wheels self propelled drive of the wheelchair is possible.

# WARNING! Do not put fingers between the wheel and the handrim. It threatens the injury of the palm.

- 6. Front wheels 8 inches turning wheels are installed on rotating forks, which makes manoeuvring of the wheelchair possible.
- 7. Cross –thanks to it the wheelchair can be easily fold for transportation and storage.
- 8. Footplate User's feet rest on it. It is possible to lift up the footrest, which can ease getting in and out of the wheelchair.
- 9. Footrest The removable footrest is a safe and comfortable support for legs. The footrest is adjustable in length.
- 10. Seat Made in similar way to the backrest.
- 11. Brake Pushing of brake lever towards front causes their pulling and protects the wheelchair against unforeseen movement and the rolling down the slope.

WARNING! Always pull both brakes, if you do not move on the wheelchair.



Fig. 1

## **3 OPERATION DESCRIPTION OF WHEELCHAIR ELEMENTS**

## **Footrests**

Standard footrests can be disassembled or pushed away on side. (Fig.2)

To incline and disassemble the footrest it has to be unblock by pulling out the safety-lock (1) and to turn the footrest outside, then pull it upwards (2). The footrest assembling should be conducted in reverse order by inserting it in base of frame (3) and turning it towards (4). The safety-lock will block self - actively.

The wheelchair is equipped with height-adjustable footrests. To adjust their length one should slacken a screw (5), choose the height of the footrest and tight the screw. During using the wheelchair outside, the footrests must be placed on height of minimum 4-5cm from the base.







Fig. 2

In addition, the footrests posses the ability of moving the footplates upwards (6), which facilitates getting in and out of the wheelchair and also disassembling the footrests.

WARNING! You should never climb the footrests, it can cause falling over the wheelchair. You should never raise the wheelchair using the footrests.

## **Armrests**

The armrests are height-adjustable (Fig. 3). To change the position one should slacken a screw (1), choose the height of the armrest (2) and then tight the screw.

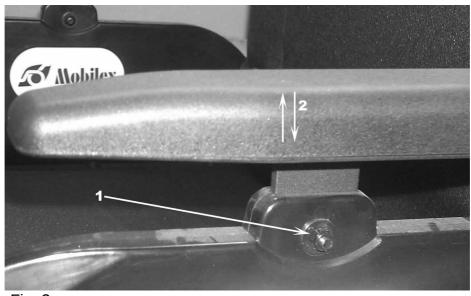


Fig. 3

The armrests can be also inclined upwards, which ease getting in and out of the chair (Fig.4). To unblock the safety-lock (1) one should press the lever (2) placed on the side of the armrest and then lift the side panel up (3).

After lowering the armrest and placing it on the guide bar, the safety-lock (1) block self - actively.

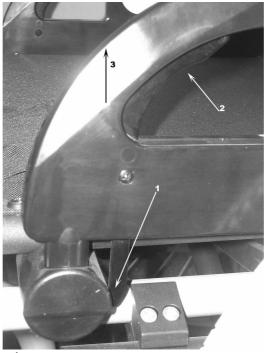


Fig. 4

## **Brakes**

To apply the brake push the lever forward (1). To release the brake pull the lever toward the wheel (2), (Fig. 5).

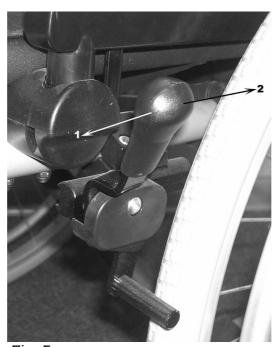


Fig. 5

## 24" rear wheels

The wheelchair is delivered with the standard aluminium push rims. The material and the distance between the push rim and the wheel can influence on the grip strength of the wheelchair's user.

One should be careful and not allow the fingers to get between spokes during driving in narrow passages. To avoid such risk it is recommended to use a spoke protection. One should regularly control the pressure in tyres, which ought to be in range of 2-2,2 atm depending on the weight of the user.

The wheels on "Dolphin" chair can additionally be easily removed and fitted in by pressing the quick-release button placed in the centre of the wheel (1), (Fig. 6)

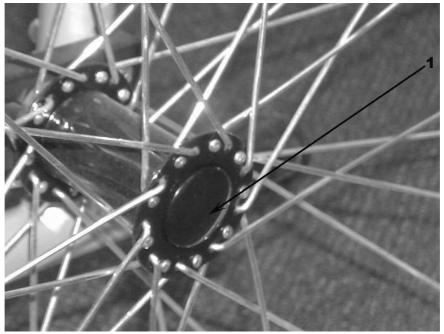


Fig. 6

The wheel balance on "Dolphin" chair can be additionally adjusted by moving the wheel axle. In his case it is necessary to adjust also the position of the turning wheels.

WARNING! We recommend such adjustment to be done by the qualified staff. An inappropriate adjustment can cause deterioration of the safety usage of the wheelchair and decrease its durability.

## Safety belts

There is possibility to attach the hip safety belts. They are not among the standard equipment.

## **Push handles**

The push handles are height-adjustable (Fig. 7).

To change the setting one should loosen the lever (1), choose the push handle height (2) and then tighten the lever.

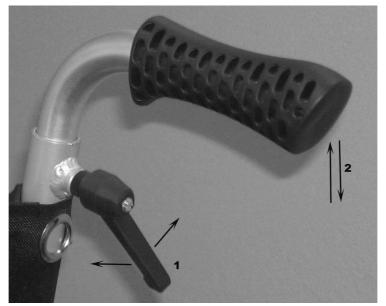


Fig. 7

## How to fold the wheelchair?

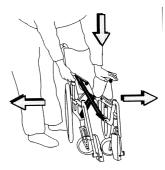
Lift the footplates up.

Lift the upholstery of the seat (in accordance with the instructions on the drawing).



## How to unfold the wheelchair?

Placing one hand on the seat upholstery press one of the tubes, which support the seat upholstery (in accordance with the instructions on the drawing). One should be careful and not put the hand between tubes and the wheelchair frame during unfolding it.



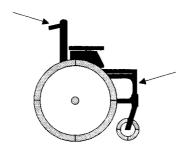
## How to lift the wheelchair up?

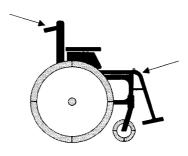
For wheelchairs without the block footrests:

One should lift the footrests up, then turn the footplates to place them completely under the wheelchair. It is also possible to remove the footplates.

Lift the wheelchair up using the push handles and the front part of the wheelchair frame, where the footrest is placed.

WARNING! It is not allowed to lift the wheelchair up by gripping the footrests or armrests!





## 4 MOVING ON THE WHEELCHAIR

# Getting in and out of the wheelchair techniques

Teaching the techniques of transferring the passenger must be hold under the exact supervision of qualified staff. Below we present only our recommendations.



## Transferring the passenger from the wheelchair to the bed

The passenger should face the bed without regard on the fact if the other person helps or not.

- Drive the wheelchair as close to the bed as possible and ensure, that front wheels are facing towards
- Pull the brake, lift the armrests / side panels on his side of the wheelchair, on which the transfer to the bed will take place

## Transferring the passenger from the bed to the wheelchair

The passenger should face the bed without regard on the fact if the other person helps or not.

- Drive the wheelchair as close to the bed as possible and ensure, that front wheels are facing towards
- Pull the brake, lift the footrests

Do not climb the footrests, it can cause falling over the wheelchair.

The attendants should use mainly the strength of muscles of legs to draw the wheelchair on stairs avoiding the excessive bending down and impairing the muscles of backs.



## The wheelchair driving instruction

The correct weight distribution is a basic element of the proper wheelchair usage. The correct wheelchair operation depends not only on the weight but also on the body constitution, position of the person seating on the wheelchair and location of the rear wheels of the chair. The larger weight proportion of the passenger rests on the rear wheels of the chair the easier to drive it. The larger weight proportion of the passenger rests on the front wheels the harder to drive the wheelchair.

Attendants: They should ensure, that the brake is always applied, when they are going away from the wheelchair with the passenger seating on it.

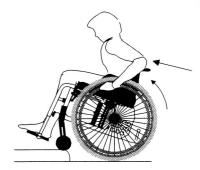
Parking: One ought to ensure, that the front turning wheels are always pointing forwards, when the wheelchair is not in movement, to enlarge their contact with the base.

#### How to enter the sidewalk?

## Passenger turned ahead to the obstacle

(We advise, to use the below mentioned technique only by the experienced wheelchair users)

- drive the wheelchair as close to the kerb as possible
- incline the wheelchair backwards balancing on the rear wheels and lift the front turning wheels to the height of the kerb. Push the rear wheels forwards and in the same time lean over transferring the weight to the front of the wheelchair.





## Attendant and passenger turned ahead to the obstacle

- the attendant inclines the wheelchair backwards with use of the bar for inclining, so that the front turning wheels appear on the sidewalk
- use the handles at the back of the wheelchair to enter the rear wheels on the sidewalk

## Passenger turned to the obstacle with back

(the below mentioned technique will give the results only in case of the very low obstacle and when the height of the footrests is sufficient to not make the obstacle)

- drive to the obstacle backwards so as the rear wheels will touch it
- push the rear wheels backwards leaning in the same time forwards

# Attendant and passenger turned to the obstacle with back

- drive to the obstacle backwards so as the rear wheels will touch it
- incline the wheelchair backwards with use of the bar inclining to come the front turning wheels off the base
- pull the wheelchair on the sidewalk with use of the handles, then turn it forwards ensuring, that the front wheels overcame the obstacle

#### How to drive out of the sidewalk?

## Passenger turned ahead to the obstacle's edge

(We advise, to use the below mentioned technique only by the experienced wheelchair users)

- drive the wheelchair as close as possible to the kerb being the edge of the sidewalk
- balance the wheelchair on the rear wheels allowing the front turning wheels to come off the base as much as it necessary
- drive out of the sidewalk very slowly and carefully lowering the front turning wheels on the base







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# Attendant and passenger turned ahead to the obstacle's edge

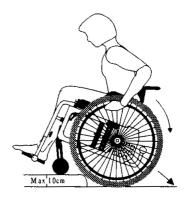
- incline the wheelchair backwards with use of the incline bar allowing the front turning wheels to come off the base as much as it is necessary
- drive the wheelchair slowly out of the sidewalk and carefully lower the front turning wheels on the base



## Passenger turned to the obstacle's edge with back

(We do not recommend to use this technique for driving out of the sidewalk higher then 10cm)

- drive the wheelchair as close as possible to the edge of the sidewalk
- drive out of the sidewalk very slowly leaning in the same time forwards



WARNING! This operation can be dangerous, it can cause tipping the wheelchair over.

# Attendant and passenger turned to the obstacle's edge with back

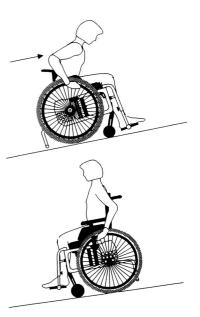
- drive the wheelchair backwards as close as possible to the edge of the sidewalk
- drive out of the sidewalk very slowly and pull the wheelchair on the rear wheels until the front turning wheels go out of the sidewalk and lower them on the base



## Overcoming the slopes

Please apply to the following instructions during overcoming the slopes:

- Avoid the direction changes during driving the slope
- Try to drive along the straight line during driving the slope
- If necessary do not hesitate to ask for help to avoid an unnecessary risk
- During driving up the slope lean forwards to transfer the centre of gravity to the front and to make the wheelchair more stable
- During driving down the slope lean backwards to transfer the centre of gravity to the back and to make the wheelchair more stable



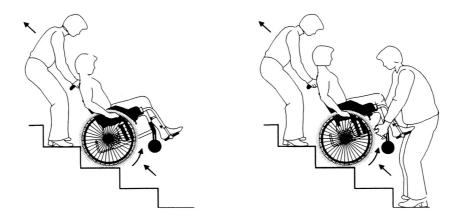
Control the speed using the rear wheels not applying the brake

## **Entering the stairs**

# WARNING! Always ask other persons for help. Do not drive the wheelchair on escalators nor on your own nor with the help of the other person

## Attendant and passenger turned to the stairs with back

- Push the wheelchair to the stairs close enough to touch the first step with the rear wheels.
- Use the bar to incline the wheelchair backwards
- Pull the wheelchair slowly up the stairs, step by step, balancing on the rear wheels
- After overcoming the last step pull the wheelchair until the front turning wheels will be situated entirely on the storey and lower them on the base



If there are two attendants, the second one can help pulling the wheelchair by carrying it with motionless footrests. If the footrests are not fitted motionlessly, they ought to be disassembled and the second attendant should carry the wheelchair holding it with the frame.

The attendants should use mainly the strength of muscles of legs to draw the wheelchair on stairs avoiding the excessive bending down and impairing the muscles of backs.

## Going down the stairs

WARNING! Always ask other persons for help. Do not drive the wheelchair on escalators nor on your own nor with the help of the other person

## Attendant and passenger turned ahead to the stairs

- Push the wheelchair to the stairs' edge as close as possible
- Use the bar to incline the wheelchair backwards
- Pull the wheelchair slowly down the stairs, step by step, on the rear wheels
- After overcoming the last step lower the wheelchair on the all wheels

If there are two attendants, the second one can help pulling the wheelchair by carrying it with motionless footrests. If the footrests are not fitted motionlessly, they ought to be disassembled and the second attendant should carry the wheelchair holding it with the frame.

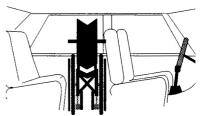


The attendants should use mainly the strength of muscles of legs to draw the wheelchair on stairs avoiding the excessive bending down and impairing the muscles of backs.

## **5 WHEELCHAIR TRANSPORTATION**

## Car transport

Place the wheelchair in the car boot. If, for some reason, it is not possible, put the folded wheelchair between the front and the rear seats inside the car ensuring that the wheelchair is in a sure and stable position. If it is not possible the wheelchair should be fasten with the safety belt.



WARNING! The wheelchair is not the car seat. During travelling by vehicles seating on the wheelchair is not allowed. The chair should be folded and safely immobilized.

## 6 MAINTENANCE

#### **Frame**

The frame ought to be cleaned with use of damp cloth alternatively with addition of a soft detergent. The frame should be regularly controlled, to find on time the damages of varnish, which my cause corrosion.

## **Upholstery**

The seat and the backrest are made of a very durable strengthened nylon. The seat upholstery can be easily removed by slackening the screws placed on the frame tubes. The backrest upholstery can be removed by slackening the screws placed on the backrest tubes. The seat and the backrest upholstery can be washed with use of sponge and gentle washing soap.

Parts, which should be regularly inspected

Part	Control type	Control frequency	
	Control type	Control frequency	
name			
Tyres	Tyre pressure, condition of tread and tyres. One should take care, to keep the pressure in both tyres on the same level. Harder tyres provide better manoeuvrability of the wheelchair and larger easiness of driving, but they reduce the comfort on uneven surface.	At least once a week	
Spokes	Loose spokes can cause deformation of the rear wheels. Contact your point of sale or local bicycle service to manage the problem of loose spokes.	If the problem occurs	
Wheel axles	Remove the hair or accumulated dirt	If necessary	
Push Rims	Excessively scratched push rims ought to be exchanged because they can wound the user's hands during driving the wheelchair	If necessary	
Brakes	The braking force depends on the tyre pressure. The efficiency of brake operation can be also affected with dirt accumulated on tyres. Keep the brakes clean wiping them with a damp cloth to remove dirt, and also lubricating the funnel of screws, on which the brake levers turn.	Control the correctness of brake operation at least once a month	
Frame	Maintain the wheelchair in the highest cleanness for better comfort of the user.	At least once a month	
Turning wheels	The area between the fork and the front wheel should be kept clean, because of dirt accumulating there,	The maintenance ought to be made once a month or often depending on	

	which can cause faster wear of turning wheel bearings. To do so, one should disassemble the front wheel by unscrewing it from the fork, remove all dirt, and then preserve the metal elements of the wheel (i.e. technical grease).	the soiling degree.	
Detachable	Check condition of detachable elements of the	In case of intensive exploitation of the wheelchair the inspection should be carry out once a month.	
elements	wheelchair, if screws are loosen they should be tighten.		
Quick- release axles of the rear wheels	One should clean and then lubricate lightly the quick-release axles of the rear wheels, with a damp cloth the slots of fixing the quick-release axles ought to be cleaned up from all dirt. The wheel should be laid on the base, resting on the push rim (never opposite way, because the quick-release axle can be soil, which can cause its seizing in the main axle opening. In case of solid particles occurring on the surface of the quick-release axle of the wheel, using is not allowed.	Lubricating should be carried out periodically.	

## 7 SOLVING OF COMMON PROBLEMS

If you notice any irregularities in the wheelchair working you cannot use it. You should contact the local point of sale or service department of the wheelchair supplier. The manufacturer does not guarantee correctness of the wheelchair operation, if the parts applied in it are not original.

The wheelchair	— inflate tyres			
seems to tilt on	<ul> <li>— check fastening of the front turning wheels</li> </ul>			
one side	— check displacement of the wheelchair mass			
	— one of the rear tyres might be inflated more then the other one			
The wheelchair is	— inflate tyres			
hard to push	— check fastening of the front turning wheels			
	— remove dirt or entangled hair from the front turning wheels			
	— to large load applied on the front turning wheels: move the			
	centre of gravity			
The wheelchair is	— inflate tyres			
hard to turn	— ensure, that screws fastening the front turning wheels are not			
	tightened to strong			
	<ul> <li>remove dirt or entangled hair from the front turning wheels</li> </ul>			
Brakes are not	— inflate tyres			
working correctly	<ul> <li>adjust the distance between the brake and tyres</li> </ul>			
It is hard to fold	— the upholstery fitted to tight			
and unfold the	— clean up or besmear the cross under the seat			
wheelchair	·			
The wheelchair is	— inflate tyres			
not stable	<ul> <li>ensure, that all screws and nuts are tightened</li> </ul>			
	<ul> <li>ensure, the wheelchair is properly adapted to the passenger</li> </ul>			

For realization of basic service actions the set of socket wrenches, or adjustable spanner, flat and cross screwdriver will be sufficient.

## Defects, which detection is the user's duty

- Bering slackness in the front and rear wheels, and also in the front forks
- The tension degree of spokes and alignment of the rear wheels

- Defects and the wear status of the tyres
- Defects of the turning wheels
- Mechanical defects and the wear status of the upholstery
- Defects of brakes
- Defects of the cross mechanism
- Defects of the footrests i armrests
- Defects of the push handles
- Defects of the quick-release axles of the rear wheels
- Defects of the anti-tipping protections

## List of elements provided for an independent easy service

 additional safety belt, armrests, footrests, turning wheels, the seat and backrest upholstery, rear wheels, brakes, push handles, quick-release axles of the rear wheels, anti-tipping protections.

#### List of authorized services

Contact the service centre, if you are not able to solve the problem on your own.

## Service actions executed by the authorized producer's service

Warning: attempt of an independent repair of following elements can cause the loss of the guarantee

Exchange of bearings of the front and rear wheels, exchange and repair of parts of the cross mechanism, repair of component parts of main frame

## Parts, which can be easily disassembled and send to a producer's service

Footrests, turning wheels, seat and backrest upholstery, rear wheels, brakes, armrests, rubber pads of push handles, quick-release axles of the rear wheels, anti-tipping protections.

## The procedure of sending the wheelchair or its parts to the service

To accomplish the repair of the wheelchair on should contact directly the producer's service or the local seller. The wheelchair or its parts ought to be send in a package protecting against accidental transportation damages. The best solution is to keep the original packaging. The dispatch ought to be organized through the transporting company indicated by the manufacturer.

## **List of spare parts**

24 in main wheels, push rims, bearings of main and turning wheels, rubber pads of push handles, brakes: left and right, pads of armrests, footplates, structure of armrests, structure of footrests, seat and backrest upholstery, quick-release axles of the rear wheels, anti-tipping protections.

#### **8 GUARANTEE**

#### **Guarantee information**

The manufacturer cover the product by 24 month guarantee from the purchase date.

- During the period of guarantee all parts, which would result defectives for manufacturing or using of improper materials will be repaired or replaced free of charge.
- Damages of tyres, upholstery and spokes caused by wear in time of exploitation are not covered by the guarantee. The other parts of the wheelchair, which undergo the normal wear during the exploitation are not covered by the guarantee either.
- All mechanical defects and damages caused by improper use are not covered by the guarantee.
- Not authorized changes and modifications of the wheelchair will cause the loss of the guarantee.
- If any defects or damages occur, one should immediately inform the supplier about that fact.

## Range of responsibility

The guarantee does not cover the loss, which rise in consequence of impossibility of using of the product, when faults are being removed.

The manufacturer does not bear the responsibility for damages risen as the result of an inappropriate or incorrect understanding of the present instruction.

## Customer's contact with the service

All inquiries, observation or notification of repairs please refer to the shop, in which the wheelchair was bought or directly to the manufacturer.

## Wheelchairs with special features

This definition refers to any wheelchair, which was modified and differ from details given in this instruction. If the wheelchair was modified by the user it is not compliant with the requirements of CE sign and it is not covered by the guarantee.

If you have any questions or doubts in the matter of modification please contact the Manufacturer: Mobilex A/S

## Additionally installed elements

If additional elements, not supplied by the manufacturer, are fixed on the wheelchair CE sign and the guarantee will lose their validity. Contact the manufacturer to obtain detailed information.

## 9 TECHNICAL PARAMETERS

## **Available wheelchair dimensions (width)**

Dimension 14" - 36 cm

Dimension 16" - 40 cm

Dimension 18" - 45 cm

Dimension 20" - 50 cm

Available wheelchair colours: Silver metallic

Lp. Characteristics/parameters Dolphin S	ark
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1	Maximum mass of user	120kg	120kg
2	Overall length of wheelchair with legrest	1065mm	1095mm
	and footrest		
3	Overall width	713mm	714mm
4	Minimum length of folded wheelchair	774mm	810mm
5	Minimum overall width of folded wheel-	320mm	305mm
	chair		
6	Minimum height of folded wheelchair	963mm	952mm
7	Overall mass of wheelchair	16,75kg	19,45kg
8	Mass of the biggest component	8,85 kg	15,2 kg
9	Static stability of wheelchair positioned	21°	20°
	backwards up to the slope		
10	Static stability of wheelchair facing up to	10°	12°
	the slope (backwards)		
11	Static stability of wheelchair positioned	23°	20°
	sideward up to the slope		
12	Angle of seat plane	10,4°	10°
13	Effective depth of seat	440mm	465mm
14	Effective width of seat	530mm	540mm
15	Height of front edge of seat plane	500mm	510mm
16	Angle of backrest	12,5°	10°
17	Height of backrest	440mm	460mm
18	Distance of footrest from seat	480mm	480mm
19	Angle of legrest	107°	110°
20	Height of armrests	235-	225-
		310mm	300mm
21	Position of the front of armrests	355mm	360mm
22	Diameter of drive wheel	534mm	534mm
23	Diameter of driving wheel	596mm	596mm
24	Diameter of castor/front wheel	198mm	198mm
25	Displacement of wheel axis horizontally	65mm	50mm
26	Width of U-turn limited by spacing of	1250mm	1250mm
	walls		