

# SWINGBO 2 & 2XL Service instructions

en

## SWINGBO 2 Service and maintenance instructions

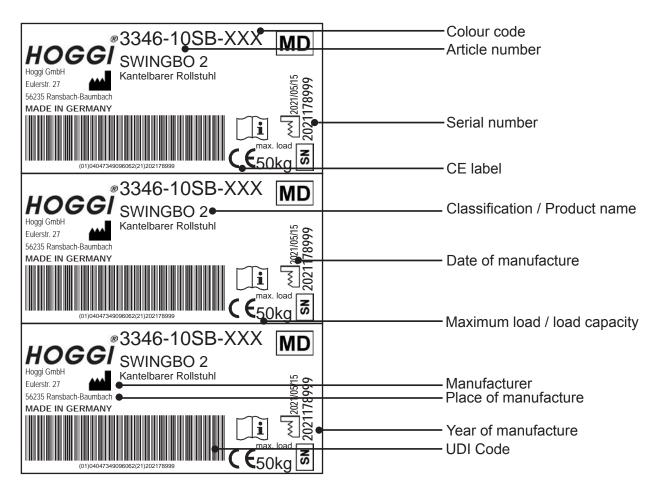
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### 1 Model identification

#### 1.1 Model identification (label)

(The label is attached to the axle tube)



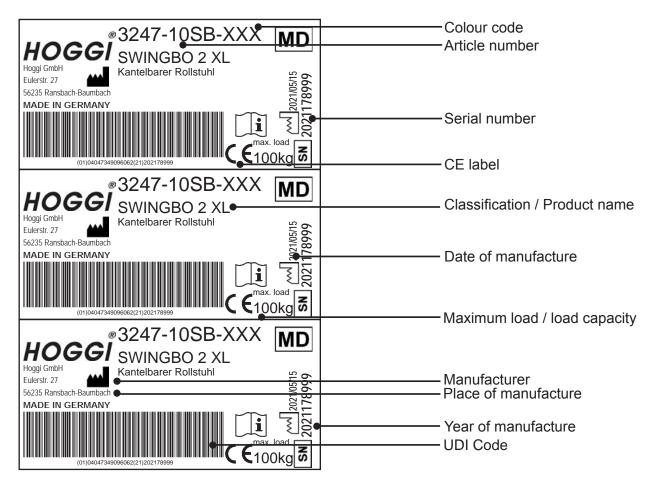
### 1.2 Basic configuration

- Aluminium rigid frame with centre of gravity tilt in space
- Wheel base adjustable
- Knee lever wheel lock
- Rear wheels incl. push rims (removable via quick release axle)
- Seat depth adjustable by apx. 8 cm
- Choice of seat widths 24 -36 cm
- Push-handle or push-bar included
- Adjustable front seat height: 36 cm up to 47cm
- Adjustable tilt in space: -5° up to +45°
- Back angle adjustable
- Camber 3°, 6° or 9°
- Load capacity: 50 kg

### 1 Model identification

#### 1.1 Model identification (label)

(The label is attached to the axle tube)



### **1.2 Basic configuration**

#### Mobility base:

- Aluminium rigid frame with centre of gravity tilt in space
- Wheel base adjustable
- Wheel lock integrated in side panel
- HOGGI light rear wheels incl. push rims (removable via quick release axle)

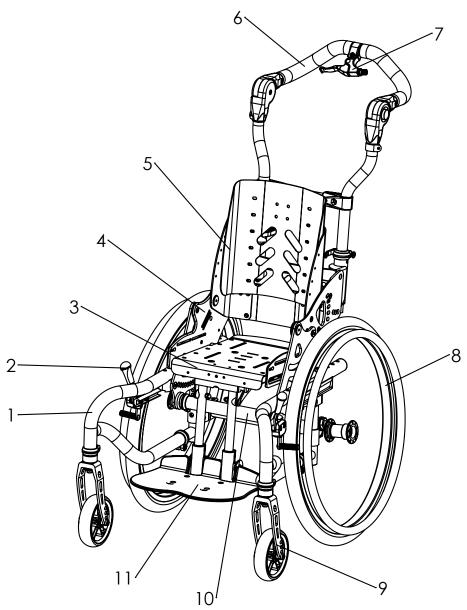
#### Seat system:

- Seat height adjustable
- Push-handle or push-bar included
- Adjustable tilt in space: -5° up to +45°

With low seat heights, a low degree of activity and low armrests, the tilt may be limited.

- Seat depth adjustable by apx. 8 cm
- hoice of seat widths 32 44 cm
- Load capacity: 100 kg

## 2 Overview SWINGBO 2 & 2XL



Pos	Artikel number	Artikel description
1	3246-110XE-000	Side frame
2	1207-000X	Hand brake push
3	3246-22SB-015	Seat frame
4	3248-151X-015	Seat adapter
5	3245-XSB	Back panel
6	3245-5XSB	Pushbar und Handlebar
7	3246-1900E	Tilt adjustment
8		Rear wheels and push rims
9		caster fork and front wheels

### **3 Common Information**

#### 3.1 Preface

Thank you for selecting the *SWINGBO 2 / 2XL* wheelchair. We have designed this high-quality product to make your life safer and easier, and we've included this manual to help you use and care for it. Please read the following instructions to make sure you use this product as recommended. If you have any further questions, or if you have any problems, please contact your healthcare provider.

We hope that SWINGBO 2 / 2XL meets your expectations.

We reserve technical modifications regarding the specified model in this manual. Before using the wheechair the first time, this manual has to be read and understood by patient and support personnel in oder to ensure a safe handling with the wheelchair.

Regular maintenance is important - it increases safety and prolongs the life of the product. Every rehab product should be checked and serviced once a year.

However, it is recommended to check, readjust and, if necessary, service products with a high frequency of use, with users in growth or users with a changing clinical picture at 6-month intervals.

Only original spare parts should be used for all service and maintenance work.

The service and maintenance work described here should only be carried out by trained specialist personnel and not by the user of the aid.

These service and maintenance instructions refer to the respective spare parts catalogs and operating instructions of the products described. Please use all documents together.

Use the maintenance schedule (Chapter 5.2, Checklist to tick off) as a copy template.

Retain completed maintenance schedules and provide a copy to the customer.

SWINGBO 2	User manual	1910-0034-EN
SWINGBO 2	Spare parts catalog	1910-1003-EN
SWINGBO 2 XL	User manual	1910-0035-EN
SWINGBO 2 XL	Spare parts catalog	1910-1005-EN

### 3.2 Application

**SWINGBO 2 / 2XL** wheelchair is designed solely for individual indoor and outdoor use by childern and adolescents who are unable to walk or who have a walking impediment, and can be operated by the patient or by another person.

Assistance may be required due to:

- Paralysis (paraplegia / tetraplegia or tetraparesis)
- Loss of limbs (dysmelia/lower limb amputation)
- Infantile/spastic cerebral palsy
- Spina Bifida
- Muscle and nerve disorders
- Osteogenesis Imperfecta
- Poliomyeliti
- There are no known contraindications when used as directed.

**SWINGBO 2 / 2XL** wheelchair is able to be used for further service. For further service the product has to be cleaned and sanitised efficiently. Afterwards the product has to be checked concerning condition, wearout and damage by an authorised technician. All damaged and inapropptiate parts need to be changed. Some components can be used again, e.g. rear wheels, steering wheels or push handles. Please see also the service manual for detailled information.

#### 3.3 Declaration of Conformity

HOGGI GmbH as manufacturer declares under sole responsibility that the *SWINGBO* **2** /2XL system wheelchair meets the general safety and performance requirements to Annex I of the Regulation (EU) 2017/745 of the European Parliament and of the Council. Applicable harmonized standards have been applied. *SWINGBO 2* /2XL meets the requirements of ISO 7176-8, DIN EN ISO 12182 and DIN EN ISO 12183.

#### 3.4 Terms of Warranty

Warranty applies only when the product is used according to the specified conditions and for the intended purposes, following all manufacturer's recommendations. The manufacturer is not responsible for damages caused by components and spare parts not approved by the manufacturer. See also § 8 of terms and conditions on: *www.hoggi.de* 

#### 3.5 Customer service

Our customer service will be happy to answer any technical questions you may have. Please refer to the last page for contact addresses and telephone numbers.

#### 3.6 Service and repairs

Service and repairs on the *SWINGBO 2 / 2XL* wheelchair may only be carried out by your specialist dealer. In case of problems, contact your responsible specialist dealer. In case of repairs, you will only receive original spare parts there.

Spare parts and replacement units are available during the entire service life of the product, but only for a maximum of 2 years after the sale of the last product in this series. The wheelchair is custom made for the first time user. Therefore, no replacement wheelchair is available in the initial configuration. In order to ensure a correct spare parts delivery the serial no. of your wheelchair is required.

We are happy to help you find a dealer near you.

You can reach us at: info@hoggi.de

#### 3.7 Packing and shipping instructions

If **SWINGBO 2** / **2XL** has to be sent back to the manufacturer for repair or exchange the product must be thoroughly cleaned/disinfected beforehand and put in a hygienically safe condition.

Packaging is done by wrapping the product in a clean film, ideally with air cushions and the subsequent use of a sufficiently large cardboard box, so that no transport damage can occur.

### **4** Safety instructions

### 4.1 Meaning of symbols



Caution! Warning of possible danger of accident and injury. Warning of possible technical damage.



About use of product.

IInformation!



Information! For service-personnel.



Attention! Read manual before use!

### 4.2 Safety instructions

For all maintenance and repair work, you should generally observe a few points:



Attention!

Familiarize yourself with the functions of the product. If you are not familiar with the product, study the user manual before testing. If no user manuals are available, request them from us. You can also download documents from our homepage at: **www.hoggi.de** 



Attention! Study the service and maintenance instructions before starting work.



Attention! Use suitable tools (see page 4 ff.).



Attention! Wear suitable clothing and, if necessary, gloves and protective goggles.



Attention!

Secure the product from tipping over or falling down, e.g. from the workbench.



#### Attention!

Clean / disinfect the product before starting the test. If necessary, observe the instructions in the user manual and product-specific test instructions.



Screws and nuts with thread locking are used for a large number of screw connections. If you have to open such screw connections, replace the respective nut or screw with one with new thread locking. If new nuts or bolts with thread locking are not available, use liquid thread locking compound with medium strength (e.g. Loctite 241 or Euro Lock A24.20).

### **5** Required tools and maintenance schedule

#### 5.1 Required tools

The following list shows the tools and utilities required for service.



Reversible ratchet and sockets size 8-24



Hexagon wrench Gr. 3 - 6



Torque wrench Measuring ranges 5-50 Nm



Screwdriver Blade width 2.5 3.5 and 5.5



Wrench Size 6 - 24



Phillips screwdriver Size 2



Plastic hammer



Side cutter



Hammer approx. 300 g



Liquid thread locking "medium strength"



Carpet knife with sickle and standard blade



Riveting pliers for rivets up to 5 mm

	Maintenance schedule for regular inspection	SWINGBO 2 / 2XL System wheelchair		Customer:					
Pos.	Area	Check (Checklist to tick off ☑)							
	Serial number:	1.) Function / Setting (see instruction manual)		2.) none damage / defor- mation	3.) Screw connections				
1. Basi	ic product	·							
1.1	Frame	- Damages							
1.2	Base plates and Cross tube	- Active degree							
		- Seat height							
1.3	Rear axle	- Seat height							
1.4	Seat unit	- Tilt							
		- Seat depth							
1.5	Back system & push bar/ handle	- Height adjustment back							
	variant	- Angle adjustment back							
		- Height adjustment for push bar/							
		handles	_	_	_				
		- Angle adjustment for push bar							
		- Remove							
1.0		- Fold down							
1.6	Braking system	- Brakes							
1.7	Wheel fork holder	- Swivelling of the wheel forks							
1.8	Steering wheels	- Tires							
		- Air pressure							
		- Running behavior of the wheels							
1.9	Rear wheels	- Tires							
		- Air pressure							
		- Running behavior of the wheels							
		- Camber							
ļ		- Quick release							
1.10	Push rim	- Mounting position							
	Do the settings on the wheelchair meet the user's requirements?								
Notes:	1	L							

		1.) Function / Setting		2.) none damage / defor- mation	3.) Screw connections			
2. Acce	essories Fender	- Height adjustment						
2.2	Anti tip and tip assist	- Anti tip						
		- Swivel away						
2.3	Footrest hanger	- Angle adjustment - Angle adjustment						
2.4	Footrest bracket	- Lower leg length						
		- Folding away the footrest						
2.5	Footrests	- Footrest lock						
2.5		- Footrest angle						
2.6	Seat / back cushion	- Cushion						
2.7	Tie down kit	- Support of the anchorages						
2.8	Spoke guards	- Spoke guards						
2.9	Headrest standard with cushion	- Height adjustment						
		- Padding						
2.10	Headrest with occiput upholstery	- Height adjustment						
		- Angle adjustment						
		- Padding						
2.11	Thoracic support	- Height adjustment						
		- Width adjustment						
		- Depth adjustment						
		- Padding						
2.12	Chest-/ thoracic support	- Height adjustment						
		- Width adjustment						
		- Depth and angle adjustment						
		- Padding						
2.13	Hip support	- Width adjustment						
		- Depth adjustment						
		- Padding						
2.14	Abduction block	- Pivot						
		- Removing						
2.15	Armrests	- Padding - Height adjustment						
2.15		- Clamping unit						
	Therapy tray							
2.17	Belt fixings: Lap belt, 4-point lap belt, ankle hugger	- Closures						
	Do the settings of the accessoires meet the user's requirements?							
Notes								
The maintenance was performed by:								



### 6. Seat settings

#### 6.1 Seat height

SWINGBO 2 offers seat height adjustment from 36 - 47 cm.

SWINGBO 2XL 45 - 53 cm

The seat height can be adjusted by screwing the connectors with the bolting the connectors to the axle in different hole positions of the axle mount.



On SWINGBO 2, the rear axle mounting offers 7 hole positions. The The distances are 1 cm each, giving a total adjustment range of of 6 cm in total.

SWINGBO 2 XL offers 10 hole positions, giving a total adjustment range of 9 cm.



Steering wheel fork and hole position

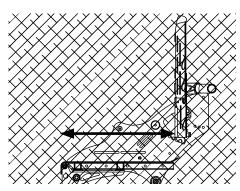
2 different fork types are available. Short or long. The short fork offers 3 hole positions, the long 4. Depending on how the rear seat height is adjusted, the hole position of the steering wheel in the fork must be adjusted. Front and rear seat height must always be identical for SWINGO 2 and 2XL so that the steering wheels have full have full contact with the ground. Depending on the wheel camber, steering wheels and drive wheels, the following guidelines result for SWINGBO 2:

Front castors	Whe	el diameter					Whe	eel diar	neter			Wheel diameter					
	10	0				125 mm				140 mm							
	100 mm				12	25 П	nm				14	to mm					
Rear wheels																	
		Camber	-	6*	9°				mber: 3*	6*	9°	_		Camber	: 3*	6*	9°
	Seat height	36		κ	κ		Seat height	36	0	κ	0		Seat height	36	0	•	•
	Seat height	37	κ	•	ĸ		Seat height	37	ĸ	•	ĸ		Seat height	37	•	ĸ	•
	Seat height	38	κ		κ		Seat height	38	ĸ	ĸ	κ		Seat height	38	κ	к	κ
20 x 1"	Seat height	39	κ	L	•		Seat height	39	ĸ	ĸ	0		Seat height	39	ĸ	0	ĸ
20 \ 1	Seat height	40	0	L	L		Seat height	40	•	L	•		Seat height	40	ĸ	•	к
	Seat height	41	L	•	L			41	L	L	L		Seat height	41	L	L	•
	Seat height	42	L	L	L			42	L	•	L		Seat height	42	0	L	L
	Seat height	43	L	0	0		Seat height	43	L	0	0		Seat height	43	L	0	0
		Camber	3°	6°	9°			Ca	mber: 3°	6°	9°			Camber	: 3°	6°	9°
	Seat height	38	o	κ	κ		Seat height	38	0	κ	κ		Seat height	38	•	κ	κ
	Seat height	39	o	L	L		Seat height	39	•	κ	κ		Seat height	39	κ	κ	•
	Seat height	40	L	•	L		Seat height	40	ĸ	0	L		Seat height	40	•	κ	κ
004"	Seat height	41	L	•	L		Seat height	41	L	L	L		Seat height	41	•	L	L
22 x 1"	Seat height	42	L	L	o		Seat height	42	L	L	0		Seat height	42	L	0	L
	Seat height	43	L+	L+	L+		Seat height	43	•	L	L		Seat height	43	L	L	L
	Seat height	44	o	L+	0		Seat height	44	•	L+	0		Seat height	44	L	L	0
	Seat height	45	L+	0	0		Seat height	45	L+	•	0		Seat height	45	•	•	•
		Camber	3°	6*	9°			Ca	mber: 3*	6*	9°			Camber	: 3*	6*	9°
	Seat height	40	0	•	L		Seat height	40	0	0	L		Seat height	40	0	•	κ
	Seat height	41	0	L	L		Seat height	41	0	L	0		Seat height	41	0	L	L
	Seat height	42	L	L	0		Seat height	42	L	L	L		Seat height	42	L	0	L
	Seat height	43	L+	L+	L+		Seat height	43	•	L	L		Seat height	43	L	L	L
	Seat height	44	o	L+	L+		Seat height	44	•	0	L+		Seat height	44	L	L	0
04 45	Seat height	45	L+	L+	L+		Seat height	45	L+	L+	L+		Seat height	45	0	L+	L+
24 x 1"	Seat height	46	L+	0	0		Seat height	46	L+	0	L+		Seat height	46	0	L+	L+
	Seat height	47	0	0	0		Seat height	47	L+	L+	0		Seat height	47	L+	L+	0
	o not available																
	K 1281-1001 S	hort wheel fo	rk w	ith sl	hort v	vhee	I fork attachme	ent 1	set incl.								
	K+ 1281-1004 S	nort wheel fo	rk w	ith Io	ng w	heel	fork attachme	nt 1	set incl.								
	L 1281-1002 L	ong wheel for	k wi	th sh	nort w	heel	fork attachme	nt 1	set incl.								
	L+ 1281-1003 Lo	ong wheel for	k wi	th lo	ng wł	neel	fork attachmen	nt 1	set incl.								

(Seat height measurements are approximate values, tolerance +/- 10mm)

Depending on the wheel camber, steering wheels and drive wheels, the following guidelines result for SWINGBO 2:

Front castors	Front castors Wheel diameter				Wheel diameter					Wheel diameter								
	125 mm				14	40 m	m			190 mm								
Rear wheels																		
			Cam	iber 3°	6°	9°			Cam	ber 3°	6"	9°			Carr	nber 3°	6"	9°
		Seat height	45	к	κ	κ		Seat height	45	•	κ	к		Seat height	45	•	•	0
00 11		Seat height	46	ĸ	κ	κ		Seat height	46	к	κ	к		Seat height	46	0	0	0
22 x 1"		Seat height	47	L	κ	L		Seat height	47	к	κ	κ		Seat height	47	•	•	0
		Seat height	48	L	L	L		Seat height	48	к	κ	L		Seat height	48	0	•	0
		Seat height	49	L	L	L		Seat height	49	L	L	L		Seat height	49	•	•	
		Seat height	50	L	o	0		Seat height	50	L	0	0		Seat height	50	LB		
	$\vdash$		Cam	ber 3°	6°	9°	$\vdash$		Cam	ber 3°	6°	9°			Carr	nber 3°	6°	9
		Seat height	45	к	к	κ		Seat height	45	0	0	0		Seat height	45	0	•	0
		Seat height	46	к	κ	κ		Seat height	46	к	κ	κ		Seat height	46	0	•	0
		Seat height	47	ĸ	κ	κ		Seat height	47	к	κ	κ		Seat height	47	0	•	0
o		Seat height	48	к	к	L		Seat height	48	к	κ	L		Seat height	48	0	•	0
24 x 1"		Seat height	49	L	L	L		Seat height	49	L	L	L		Seat height	49	0	LB	8 0
		Seat height	50	L	•	L		Seat height	50	L	L	L		Seat height	50	0	LB	зL
		Seat height	51	L	L	L		Seat height	51	L	L	L		Seat height	51	LB	LB	зL
		-						Seat height	52	L	L	0		Seat height	52	LB	LB	0
	0	not available												Seat height	53	LB	0	0
	ĸ	1281-1001 S	hort whee	el fork w	ith w	/heel	fork	attachment	1 s	et incl.								
	L	1281-1002 Lo	ong whee	fork wi	th w	heel f	fork a											
	LB	1281-1005 Lo	ong wide	wheel fo	ork w	ith w	heel	fork attachme	nt 1s	et incl.								



#### 6.2 Seat depth

SWINGBO 2 offers a seat depth adjustment range of 26 - 42cm.

SWINGBO 2 XL 30 - 50 cm.

#### The following adjustment ranges result for SWINGBO 2 according to the seat width:

Seat width (SW)	24	26	28	30	32	34	36
Mounting width between the seat adaptor plates	23,5	25,5	27,5	29,5	31,5	33,5	35,5
Seat depth	26 - 30	26 - 32	26 - 34	28 - 36	30 - 38	32 - 40	34 - 42

The following adjustment ranges result for SWINGBO 2 XL according to the seat width:

Seat width (SW)	32	36	40	44
Mounting width between the seat adaptor plates	31,5	35,5	39,5	43,5
Seat depth	30 - 42	34 - 46	38 - 50	38 - 50



To adjust the seat depth, a total of 4 screws must be loosened.

First, the chair is tilted to  $45^{\circ}$  to reach and loosen the front screw connections.



Then the rear screws on the right and left can be loosened. The seat panel can now be moved according to the specified information.



Aktivgrad

If the SWINGBO 2 is equipped with a wheel cover, this must be removed before to expose visibly the two rear screws.

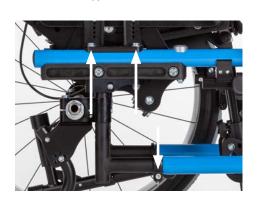
To do this, the marked screws must be completely removed. The wheel cover can then be pulled out upwards.

## 6.3 Active degree

The active degree describes the ratio of the position of the backrest relative to the drive wheel axis. The further the backrest is set behind the the drive wheel axle, the more active SWINGBO 2 and 2 XL can be driven.

SWINGBO 2 and 2 XL offer an active degree adjustment range of level 0/1/2/3/4, each 2.5 cm Total adjustment range is 10 cm

To adjust the active degree, remove the two screws fixing the wheel cover and loosen the screw of the saddle clamping ring.





Setting active degree 0

The axle mount is completely extended and the rear screw connection of the wheel cover is screwed into the rearmost hole of the frame.

This means passive driving.

Setting active degree 1

The axle mount is not completely extended and the rear screw connection of the wheel cover is screwed into the penultimate hole of the frame.

Setting active degree 2

The axle mount is extended relatively far and the rear wheel cover wheel cover is screwed into the third last hole of the frame.

Setting active degree 3

The axle mount is extended relatively short and the rear wheel cover is screwed into the fourth last hole of the frame. frame.

Setting active degree 4

The axle mount is only extended a short distance and the rear wheel cover is screwed into the fifth last hole of the frame.

This means active driving

## 6.4 Back height

First of all, a distinction must be made between a trough-shaped backrest and an angle-adjustable backrest.









	and SWIN	GBO 2XL:					
Seat width (SW)	24	26	28	30	32	34	36
Backrest height, back trough shaped	36 - 44	37 - 45	38 - 48	39 - 49	40 - 50	42 - 54	43 - 55
Seat width (SW)	32	36	40	44			
Backrest height, back trough shaped	40 - 50	43 - 55	45 - 57	48 - 60			

## The trough back offers the following adjustment ranges depending on the seat width for SWINGBO 2 and SWINGBO 2XL:



After loosening the indicated screw connections, the back can be pulled out or pushed in.

The angle-adjustable back offers	the following ranges:
----------------------------------	-----------------------

Seat width (SW)	24	26	28	30	32	34	36
Backrest height, panel angle adjustableped	33 - 42	35 - 44	37 - 46	39 - 48	41 - 50	43 - 52	45 - 54
Seat width (SW)	32	36	40	44			
Backrest height, panel angle adjustable	41 - 50	45 - 54	50 - 59	54 - 63			



After loosening the indicated screw connections, the back can be pulled out or pushed in.



#### 6.5 Seat angle

The tilt in space of SWINGBO 2 and 2XL an be adjusted between  $-5^{\circ}$  and  $+45^{\circ}$ . 13 positions of 4° each can be individually adjusted.



The tilt is triggered by a locking pin pull, which is controlled by a release lever on the push bar or push handle.





#### 6.6 Back angle adjustment

The back angle adjustment on the SWINGBO 2 and 2XL depends on the

selected push bar/push handle variant and the corresponding back. A distinction must be made here:

1. Push bar/handles removable with

angle adjustable back

2. Push bar/handles foldable with back in

trough shape

3. Angle-adjustable and foldable push

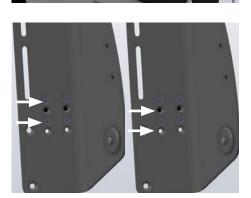
bar with trough-shaped backrest

#### Push bar/handles removable with back angle adjustable

The angle of the push handles themselves cannot be adjusted, but they can be removed for small transport dimensions via clamping levers and tripod springs.

The back sits here in front of the of the push handles or the push bar and remains unaffected by their function.

The back itself offers a total adjustment range of  $40^{\circ}$  and can be operated via the release strap on the back. In addition, the back can be folded forwards for small transport dimensions.



Depending on how the back panel is screwed to the base, the adjustment range is either 75°-115° or 80°-120°.

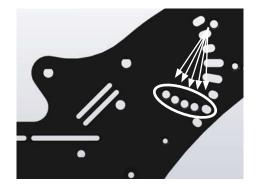
If the back plate is screwed in the positions shown on the left, the adjustment range is  $80^{\circ}$ - $120^{\circ}$ .

If the backrest panel is screwed into the positions shown on the right the adjustment range is  $75^{\circ}$ - $115^{\circ}$ .



#### Push bar/handles foldable with trough-shaped backrest

In contrast to the detachable push handles, the back is directly attached to the foldable push handles. In addition, the back is always used in the shape of a trough.



The back angle can be set to 5 different angles depending on how it is screwed to the seat mount.

Front hole: 105° Second hole: 100° Third hole: 95° Fourth hole: 90° Rear hole: 85°



In addition, the back can also be folded down with the push handles/bars to achieve a small transport size To do this, the releases on the left and right are pushed upwards and then the back is folded down.

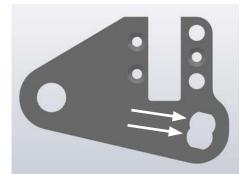


## Angle-adjustable and foldable push bar with trough-shaped backrest

As with the foldable push handles/ bar, only the moulded backrest can be used!

The back with the push handles/bars offers an adjustment range of of  $40^{\circ}$  and can be operated via the release strap on the back.





Depending on how the latch housing is screwed to the back base plate, there is an adjustment range of either  $75^{\circ}$ - $115^{\circ}$  or  $80^{\circ}$ - $120^{\circ}$ .

If the housing is screwed in the upper position shown, the adjustment range is  $80^\circ\mbox{-}120^\circ\mbox{.}$ 

If the housing is screwed in the lower position shown, the adjustment range is  $75^\circ\mbox{-}115^\circ\mbox{.}$ 



Bolting point of the latch housing with locking bolt on the back base plate.



### 6.7 Lower leg length

SWINGBO 2 und 2XL can basically be equipped with 3 different footrest hanger.

Shown here is the footrest hanger 90°. The footrest hanger can be swivelled up via the towing latches, but not fixed. SWINGBO 2 version for short LL (16-27 cm) or long LL (16-37 cm) 2XL version for short LL (20-36 cm) or long LL (20-41 cm)

Footrest hanger angle adjustable

Adjustable between 85° and 160° via clamping lever.

SWINGBO 2 version for short LL (19-27 cm) or long LL (19-37 cm) 2XL version for short LL (20-36 cm) or long LL (20-41 cm)

Single foot rest hanger, for individual adjustment of both legs

Adjustable between 85° and 160° via clamping lever.

SWINGBO 2 version for short LL (19-27 cm) or long LL (19-37 cm) 2XL version for short LL (20-36 cm) or long LL (20-41 cm)



The height of the footrest is adjusted by loosening the wing nuts on the back.

The footrest mounted on the support can then be adjusted to the individual needs.



#### 6.8 Footrest angle

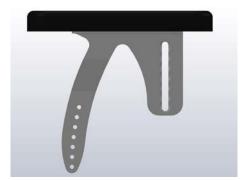
The footrest angle is preset to 90°. The adjustment range is +-  $10^{\circ}$  (80° -  $100^{\circ}$ ).



After loosening the four marked screw connections on the footrest holder the footrest can be adjusted in depth.

This changes the anchor point of the footrest and thus also the footrest angle. The further the footrest is pulled out to the front, the the greater the angle. If the procedure is reversed the angle decreases accordingly.





#### 6.9 Armrest height and angle

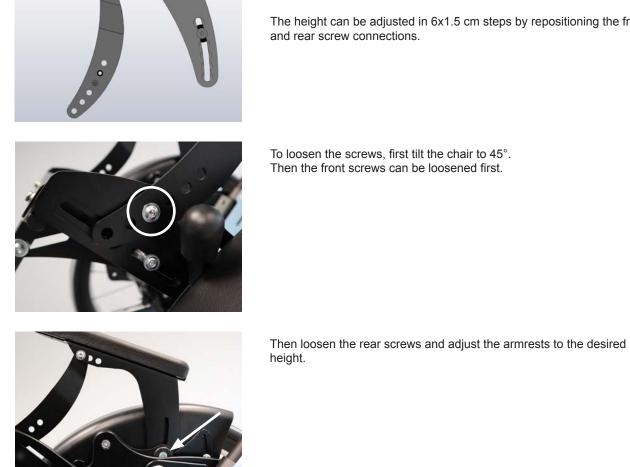
SWINGBO 2 and 2XL offers various adjustable armrest heights.

Standard:	Size 1: 14-21 cm
	Size 2: 19-26 cm

Tilt compensation: Size 1: 15-23 cm Size 2: 18-26 cm

The standard armrests always remain firmly in position and move analogously to the wheelchair movement during the tilting movement.

The height can be adjusted in steps of 7x1.25 cm by repositioning the front and rear screw connections.



The armrest with tilt compensation remains as horizontal as possible during the tilting movement and is therefore more suitable for use with a table.

The height can be adjusted in 6x1.5 cm steps by repositioning the front

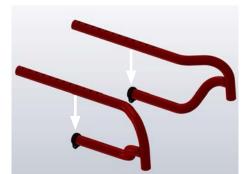
To loosen the screws, first tilt the chair to 45°. Then the front screws can be loosened first.



By using a different hole position, the general angle of inclination can also be adjusted.

If the front hole is used as shown here, the armrest is aligned more steeply.

If the rear hole is used, the flatter and more horizontal the armrest is in a tilted position.



#### 7. Maintenance schedule

#### 7.1 Frame

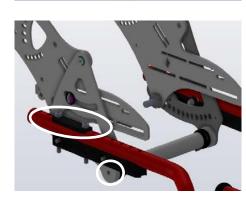
Functional test:

- Check for general damage or deformation to the frame structure
- Cracks in the construction
- Cross tube bolting

### 7.2 Base plates und cross tube

Functional test:

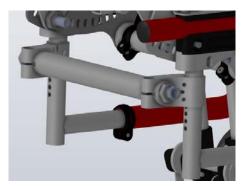
- Check for general damage



Check of the screw connections:

- Screw connections to the cross tube

- Connection of the side panels to the frame and to the internal adapter plates



### 7.3 Rear axle

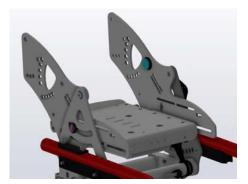
Functional test:

- Check for general damageg
- Height position of the axle correctly adjusted
- Wheel camber alignment



Check of the screw connections:

- Clamping screw of the connector
- Screwing the height position
- Screwing the connector to the axle mount



#### 7.4 Seat unit

Functional test:

- Check for general damage
- Correct seat depth
- Tilt via locking bolt tension

Check of the screw connections:

- Seat frame to the support brackets for the adjustment of the seat depth
- Seat plate on the seat frame
- Seat mounts to the tilt bearings



### 7.5 Back system & push bar/handle variant

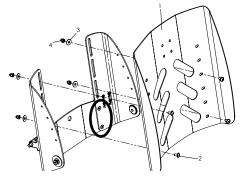
Functional test:

- Check for general damage
- Back panel height-adjustable and foldable
- Push handles or push bar removable or foldable
- Ratchet joint function for push handles
- Release of back angle adjustment
- Release of folding push bar/handles

Back panel angle and height adjustable with removable push handles or push bar

Check of the screw connections:

- Screw connection for back height adjustment
- Connection to the seat adapter



- Connecting the crossbar to the back base



- Clamping lever for height adjustment of the push bar or handles
  Tripod spring for removal
  Screw connection of the crossbar to the seat



- Backrest panel in trough shape
- Screw connection to the backrest height adjustment and to the clamps on the push handles
- Connection to the seat adapter



- Connection via support strut to seat adapterRelease of the folding mechanism



- Connection of the crossbar to the seat adaptert



- Push bar mounting to the back base panel





#### Knee lever brakes

Functional test:

- Brake closure
- Faultless operation
- Visible damage

#### Brake HOGGI light

Brake opened

Functional test:

- Brake closure
- Faultless operation
- Visible damage



#### Brake closed

Check of the screw connections:

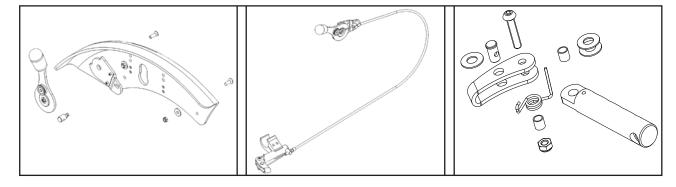
- Fixing the brake to the frame

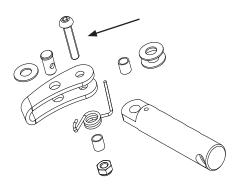


#### Integrated brake system

Consisting of:

- Fender with integrated brake system
- Brake cable
- Brake



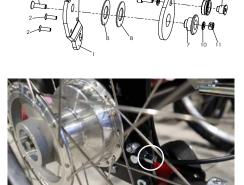


#### Functional test:

- Operability of the brake lever and smooth glide
- Good brake closure and contact pressure of the brake bracket
- Correct positioning of the brake lever in relation to the wheel.  $90^\circ$  angle and 3-5 mm wheel protrusion
- Check for general damage

Check of the screw connections:

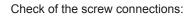
- Fastening the brake lever to the fender
- Fastening the brake bracket to the brake bracket holder
- Bowden cable correctly looped in the cable pulley



#### Drum brake

Functional test:

- Build-up of brake pressure (readjustment at adjusting screw)
- Checking the brake lever for general damage (locking lever, cracks)
- Checking the Bowden cable (kinks or cracks)
- Check the brake anchor and brake pads (contamination, wear)



- Connection brake anchor with adapter
- Connection of brake anchor adapter with side plate
- Bowden cable correctly hooked in
- Screw connection of the brake handle to the handle unit



#### 7.7 Wheel fork holder

Functional test:

- Swiveling of the wheel fork
- Smooth running or fluttering -> Checking the alignment
- Check for general damage to the forks



Check of the screw connections:

Screw connection of the wheel axleBolting the steering fork axle to the frame









#### 7.8 Steering wheels

Functional test:

- Check for general damage
- Check of the tread or profile (cracks, heavy wear)
- Wheel curvature too worn (tread max. up to 5mm to edge of wheel)
- Contamination in the area of the wheel bearing or the axle

#### 7.9 Rear wheels

Functional test:

- Check for general damage
- Checking the treads and air pressure
- Checking the locking
- Checking the running behaviour of the wheel, clearance, mechanics of the axle
- Checking of the correct alignment of the camber adapter and its bolting

Adjustment of the quick-release axle:

- The axle should be fitted with a minimum of clearance. If too much movement is possible, the front nut is closed slightly clockwise with a 19 mm open-ended spanner in a clockwise direction, while the rear axle is secured with an 11 mm open-ended spanner

- If the wheel is too tight, proceed in reverse order

#### 7.10 Push rim

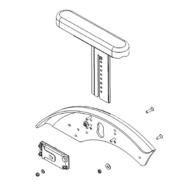
Functional test:

- Check for general damage
- Severe scratching and sharp edges

Checking the screw connections:

- Attachment of handrim to rim, also at correct distance







#### 7.11 Fender

Standard fender

Functional test:

- Check for general damage
- Screw connection to the base plate firmly tightened

Fender with integrated armrests

Functional test:

- Height adjustment and latching of the armrest
- Damage to the armrest cushion
- Damage to the release button
- Screw connection to base plate firmly tightened
- Armrest holder firmly screwed to wheel cover

Fender with integrated brake system and armrests

Functional test:

- Check for general damage
- Height adjustment and latching of the armrest
- Damage to the armrest cushion
- Damage to the release button
- Checking the brake unit (see 6.4 Brake system)
- Screw connection to base plate firmly tightened
- Armrest holder firmly screwed to wheel cover

### 7.12 Anti tip

Functional test:

- Check for general damage
- Correct positioning (beyond the wheel radius, 2-3 cm above the floor)
- Checking the swivel mechanism
- Checking the length adjustment

Check of the screw connections:

- Connecting screws of the bracket to the axle
- Screw conncetion of the angle adjustment













#### 7.13 Footrest hanger

Footrest hanger

Functional test:

- Check for general damage
- Distance to the seat plate
- Screw connection to the seat panel

Footrest hanger angle adjustable

Functional test:

- Check for general damage
- Swivel mechanism
- Clamping lever for angle adjustment
- Screw connection to the seat panel

Single foot rest hanger

Functional test::

- Check for general damage
- Swivel mechanism
- Clamping lever for angle adjustment
- Screw connection to the seat plate

#### 7.14 Footrest bracket

#### Standard

Functional test:

- Check for general damage
- Swivel mechanism of the screwed-on footrest
- Correct adjustment of the foot angle
- Sliding of the holder on the tubes

With locking

Functional test:

- Check for general damage
- Swivel mechanism of the screwed-on footrest
- Correct adjustment of the foot angle
- Sliding of the holder on the tubes
- Locking bolt pull with locking latches, tension of the cable



Check of the screw connections:

- Wing screws for lower leg length adjustment
- Screw connection of the swivel mechanism
- Screw connection to the footboard with correct angle adjustment



#### 7.15 Footrests

Footrest standard

Functional test:

- Check for general damage
- Screw connection to the footrest holder



Foot rest with heel stop

Functional test:

- Check for general damage
- Screw connection to the footrest holder



Aluminium footrest in frame colour

Functional test:

- Check for general damage
- Screw connection to the footrest holder



Single footplates in boat shape

Functional test:

- Check for general damage
- Screw connection to the footrest holder

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### 7.16 Seat- and back cushion

Standard seat cushion

- Check for general damage (Velcro fastening, seams, holes or
- strapped-through areas)
- Check for contamination



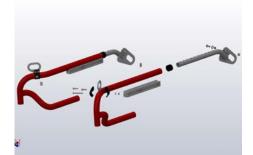
#### Seat cushion contoured

- Check for general damage (Velcro fastening, seams, holes or strapped-through areas)
- Check for contamination



#### Back cushion

- Check for general damage (Velcro fastening, seams, holes or strapped-through areas)
- Check for contamination





#### 7.17 Tie down kit (ISO 7176-19)

Functional test:

- Check for general damage (deformation, sharp edges)

Check of the screw connections:

- Connection of the front lashing eye to the frame
- Screw connection of the pipe arch lashing eyelet In the frame.

#### 7.18 Spoke guards

Functional test:

- Check for general damage (cracks)
- Fastening clips complete or defective
- Spoke guards suitable for wheel (drum brake or normal)



#### 7.19 Headrest standard

Functional test:

- Check for general damage
- Checking the screw connection to the back panel

### 7.20 Headrest with occiput upholstery

Headrest bracket

Functional test:

- Check for general damage
- Checking the clamping ability
- Checking the screw connection to the back panel

Headrest with upholstery

Functional test:

- Adjustment possibilities
- Check for general damage (wear, cracks, etc.)
- Clamping ability

Checking the screw connections:

- Attachment of pad to support

### 7.21Thoracic support

Functional test:

- Check for general damage
- Screw connection of the pad holder to the back plateh

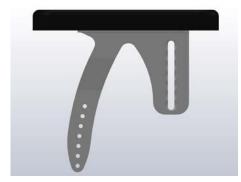
# 7.22 Chest-/ thoracic support

Functional test:

- Check for general damage
- Checking the belt buckle
- Screw connection of the pad holder to the back plate







#### 7.23 Hip supports

Functional test:

- Check for general damage
- Width adjustment
- Depth adjustment on the seat plate and the pad itself
- Screw connection of the pad support under the seat plate
- Screw connection of the pad on the support

#### 7.24 Abduction block

Functional test:

- Check for general damage
- Pivoting and latching mechanism
- Removal

Check of the screw connections:

- Bracket abduction block to the seat panel

#### 7.25 Armrests

#### Standard

Functional test:

- Check for general damage
- Screw connection of the upholstery to the armrest support

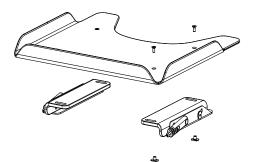
- Connection of the armrest support to the seat mounting and to the tilt bearing

#### Armrests with tilt compensation

Functional test:

- Check for general damage
- desired angle of inclination
- Screw connection of the cushion to the armrest support
- Connecting screw for tilt adjustment

- Connection of the armrest support to the seat support and to the tilt bearing



7.26 Therapy tray

Functional test:

- Attachability and fixation of the table on the armrests
- Check for general damage (deformation, sharp edges)

Check of the screw connections:

- Connection of the front and rear fuse to the base plate



### 7.27 Belt fixations

Lap belt

Functional test:

- Check for general damage
- Check of the fastener
- Check of the screw connection of the bracket

4-point lap belt

Functional test:

- Check for general damage
- Check of the fastener
- Check of the screw connection of the bracket



#### Ankle hugger

Functional test:

- Check for general damage
- Check of the fastener
- Check of the screw connection of the bracket to the footrest

#### 8 SWINGBO 2 / 2XL operating life:

The expected operating life of the **SWINGBO 2 und 2 XL** is 6 years, depending on the intensity of use, care as well as maintenance. We recommend an annual inspection by the authorized specialist dealer.

In case of malfunctions or defects of the wheelchair, it must be immediately handed over to the medical supply store or the specialist dealer.

Seat width	24	26	28	30	32	34	36
Seat depth	26-30 cm	26-32 cm	26-34 cm	28-36 cm	30-38 cm	32-40 cm	34-42 cm
Back height	33-42 cm	35-44 cm	37-46 cm	39-48 cm	42-51 cm	42-52 cm	43-54 cm
Seat angle	-5° up to +45°						
Backrest angle							
Back angle and height adjustable	75°-115° or from 80°-120° (in 10° steps)						
Foldable push bar, handles	85°-105° (in 5° steps)						
Lower leg length	16-37 cm						
Footrest angle	-10° up to +10°						
Seat height	36-47 cm						
Rear wheel diameter	20", 22", 24"						
Front wheel diameter	100 mm (4"),125 mm (5"), 140 mm (5,5")						
Camber	3°, 6°, 9°						
Maximum load	50 kg						
Weight	from 12 kg						

### **Speficications SWINGBO 2 XL**

CAUTION!

Seat width	32	36	40	44	
Seat depth	30-42 cm	34-46 cm	38-50 cm	38-50 cm	
Back height	40-50 cm	43-55 cm	50-59 cm	48-63 cm	
Seat angle	-5° up to +45°				
Backrest angle					
Back angle and height adjustable	75°-115° or from 80°-120° (in 10° steps)				
Foldable push bar, handles	85°-105° (in 10° steps)				
Lower leg length	20-41 cm				
Footrest angle	-10° up to +10°				
Seat height	41-51 cm				
Rear wheel diameter	22", 24"				
Front wheel diameter	125 mm (5"), 140 mm (5,5")				
Camber	3°, 6°, 9°				
Maximum load	100 kg				



Accessories and add-on parts reduce the remaining load capacity for the occupant.

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