



210021349127



中国认可
国际互认
检测
TESTING
CNAS L2073

Test Report

No 224/2024

Client Guangzhou Topmedi Co., Ltd.

Product Name Manual Wheelchair

Model/Type TAW951L (TAW Series)

Type of Test Entrusted Test

Rehabilitation Technical Aids Quality Supervision & Test Center
National Research Center for Rehabilitation Technical Aids



Notice

1. The report without the special report seal or the official seal of the testing agency is invalid.
2. The report without the written approval of the testing agency shall not be copied.
3. The copied report without a new special report seal or an official seal of the testing agency is invalid.
4. The report without the signature of the approver is invalid.
5. No alteration is allowed to put on the report.
6. Any objection to the report shall be submitted in writing within 15 days after receiving the report, overdue will not be accepted.
7. The report is only responsible for the tested samples.
8. The "Product Name", "Trade Mark", "Model/Type", "Manufacturer", "Production No. and Batch No." in the test report are all provided by the client, our test center is not responsible for the above informations.
9. The informations related to the product are all provided and held legally responsibility by the client.

Address: No.1 Ronghuazhong Road, BDA, Beijing, P.R.C

Tel: 0086-10-58122725

Fax: 0086-10-58122728

Post code: 100176



Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

1 of 32

Product Name	Manual Wheelchair		Sample No.	126/2024-1A
	Send sample (√)	Sampling ()		
Trade Mark	/		Model/Type	TAW951L
Client	Guangzhou Topmedi Co., Ltd.		Type of Test	Entrusted Test
Client Address	RM 1505-1507, Golden Sky Tower, No.83 Middle Huadi Road, Liwan District, Guangzhou, Guangdong, 510380, P.R. China		Production No. and Batch No.	SN24060001
Manufacturer	Guangzhou Topmedi Co., Ltd.		Sampling Bill No.	/
Inspected Entity	Guangzhou Topmedi Co., Ltd.		Date Of Production	7-Jun-2024
Sampling Unit	/		Sample Quantity	1
Sampling Location	/		Sampling Base	/
Sampling Date	/		Test Site	The test center lab
Receival Date	24-Jul-2024		Test Date	11-Jul-2024~ 29-Sep-2024
Load Level	125kg			
Test Items	All items			
Test Criteria	ISO 7176-1:2014, ISO 7176-3:2012, ISO 7176-5:2008, ISO 7176-7:1998, ISO 7176-8:2014, ISO 7176-11:2012, ISO 7176-13:1989, ISO 7176-15:1996, ISO 7176-22:2014, ISO 16840-10:2021			
Test Conclusion	<p>The inspected items of the samples are qualified with the requirements of ISO 7176-1:2014, ISO 7176-3:2012, ISO 7176-5:2008, ISO 7176-7:1998, ISO 7176-8:2014, ISO 7176-11:2012, ISO 7176-13:1989, ISO 7176-15:1996, ISO 7176-22:2014, ISO 16840-10:2021.</p> <p style="text-align: right;">(Inspection unit official seal) Issue date: 21-Oct-2024</p>			
Note	<p>1) test object does meet the requirement — Pass 2) test object does not meet the requirement — Fail 3) test case does not apply to the test object — N.A. 4) blank — /</p>			

Approved by: *Guo Huiru*

Examined by: *Yan Wei*

Tested by: *Zhang Weikang*

Li Jia Hui

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

2 of 32

ISO 7176-1:2014				
Wheelchair tipping angle (degrees)				
Stability direction		Least stable		Most stable
Forward	Front wheels locked		N.A.	N.A.
	Front wheels unlocked		19.4°	N.A.
Rearward	Rear wheels locked		14.8°	N.A.
	Rear wheels unlocked		19.6°	N.A.
Lateral orientation ¹	left		19.6°	N.A.
	right		19.6°	N.A.
Anti-tip device tipping angle				
Stability direction		Least effective	Most effective	Does device prevent tipping over
Anti-tip device ²	Rearward		21.2°	Yes
	Forward		N.A.	N.A.
¹ with lockable wheels locked				
² with the wheelchair in least stable configuration (see 11.2.2 and 11.2.3)				
Note specify whether any active-stability system was operational during any test and annotate the above table accordingly				

The settings of adjustable parts							
No	instruction						
1	Effective seat width: 465mm			Seat depth: 450mm			
2	The equipment and accessories installed: None						
3	Battery set	mass: /	size: /	Amp-hour capacity: /	type: /	manufacturer: /	model: /
4	tire	types: pneumatic tyre			sizes: 610mm		
5	Motor type: /			Controller type: /			

The details of the settings of adjustable parts				
Statement: the wheelchairs is unadjustable				
Table 1-Forward stability				
Adjustable wheelchair component	Least stable		Most stable	
Rear wheel position, fore-aft	Forward	N.A.	Back	N.A.

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

3 of 32

Front wheel position, fore-aft	Back	N.A.	Forward	N.A.
Seat position, fore-aft	Forward	N.A.	Back	N.A.
Seat position, vertical	High	N.A.	Low	N.A.
Back support position, fore-aft	Forward	N.A.	Back	N.A.
Back support, recline	Upright	N.A.	Reclined	N.A.
Body support system, tilt	Upright	N.A.	Tilted back	N.A.
Elevating leg support position	Up	N.A.	Down	N.A.
Table 2-Rearward stability				
Adjustable wheelchair component	Least stable		Most stable	
Rear wheel position, fore-aft	Forward	N.A.	Back	N.A.
Front wheel position, fore-aft	Back	N.A.	Forward	N.A.
Seat position, fore-aft	Back	N.A.	Forward	N.A.
Seat position, vertical	High	N.A.	Low	N.A.
Back support position, fore-aft	Back	N.A.	Forward	N.A.
Back support, recline	Reclined	N.A.	Upright	N.A.
Body support system, tilt	Tilted back	N.A.	Upright	N.A.
Elevating leg support position	Down	N.A.	Up	N.A.
Table 3-Lateral stability				
Adjustable wheelchair component	Least stable		Most stable	
Wheel tracks	Narrowest track	N.A.	Widest track	N.A.
Camber	Positive	N.A.	Negative	N.A.
Castor assembly attached to frame, inside-outside	Inside	N.A.	Outside	N.A.
Castor assembly attached to frame, fore-aft	Short wheelbase	N.A.	Long wheelbase	N.A.
Seat position, vertical	High	N.A.	Low	N.A.

Rehabilitation Technical Aids Quality Supervision & Test Center
National Research Center for Rehabilitation Technical Aids
Test Report

No 224/2024

4 of 32

Seat position, fore-aft	Toward axis with narrower track	N.A.	Toward axis with wider track	N.A.
Back support, recline	Upright	N.A.	Reclined	N.A.
Back support position, fore-aft	Toward axis with narrower track	N.A.	Toward axis with wider track	N.A.
Body support system, tilt	Upright	N.A.	Tilted	N.A.

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

5 of 32

ISO 7176-3:2012					
Test Items			Standard Clause	Test Results	Notes
Parking brakes	Facing downhill	Angle	7.2	14.8°	/
		The type of movement		tipping	/
	Facing uphill	Angle		14.8°	/
		The type of movement		Wheels sliding	/

Test plane inclination	Direction of travel	Maximum Speed	Normal operation	Reverse command	Emergency operation	Comments
		(m/s)	(m)	(m)	(m)	
Horizontal	Forwards	N.A.	N.A.	N.A.	N.A.	/
Horizontal	Reverse	N.A.	N.A.	N.A.	N.A.	/
3°	Forwards downhill	N.A.	N.A.	N.A.	N.A.	/
3°	Reverse downhill	N.A.	N.A.	N.A.	N.A.	/
6°	Forwards downhill	N.A.	N.A.	N.A.	N.A.	/
6°	Reverse downhill	N.A.	N.A.	N.A.	N.A.	/
10°	Forwards downhill	N.A.	N.A.	N.A.	N.A.	/
10°	Reverse downhill	N.A.	N.A.	N.A.	N.A.	/
Maximum slope specified by the manufacturer	Forwards downhill	N.A.	N.A.	N.A.	N.A.	/
Maximum slope specified by the manufacturer	Reverse downhill	N.A.	N.A.	N.A.	N.A.	/

The settings of adjustable parts

№	instruction


Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

6 of 32

1	loading	<input checked="" type="checkbox"/> test dummy: 125kg <input type="checkbox"/> person: driver :/
2	Wheelchair during test	
3	Description of the parking break	Method of operation: hand type: manual direction of force application: forward
4	Brake operating force	Means of operation: hand Operating force: 62N
5	The list of the equipment used for testing	1、 test planes, ID 20120907000S03 2、 pull and push dynamometer, ID 20180503000Y24
6	If a force was applied to prevent tipping	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

7 of 32

ISO 7176-5:2008			
Test Items	Standard Clause	Test Results	Notes
Full overall length	8.2	1070mm	/
Overall width	8.3	655mm	/
Handgrip height	8.4	910mm	/
Stowage length	8.5	N.A.	/
Stowage width	8.6	310mm	/
Stowage height	8.7	N.A.	/
Rising	8.8	140mm	/
Total mass	8.9	16kg	/
Mass of heaviest part	8.10	N.A.	/
Pivot width	8.11	N.A.	/
Reversing width	8.12	N.A.	/
Turning diameter	8.13	N.A.	/
Ground clearance	8.14	N.A.	/
Required width of angled corridor	8.15	780mm	/
Required doorway entry depth	8.16	1070mm	/
Required corridor width for side opening	8.17	810mm	/

Reference set-up values for wheelchairs with handrims	
Item	Reference set-up values
Differing terms used in ISO 7176-7 and ISO 7176-22 are given in [brackets].	Occupant mass group(125kg)
Seat plane angle (degrees)	2.0°
Effective seat depth (millimetres)	450mm

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

8 of 32

Effective seat width ^a (millimetres)	465mm
Seat surface height at front edge (millimetres)	485mm
Back support angle [backrest angle] (degrees)	7.0°
Back support height [backrest height] (millimetres)	405mm
Handgrip height (millimetres)	913mm
Back support width [backrest width] (millimetres)	450mm
Footrest to seat (millimetres)	405mm
BUT NO LESS THAN: Footrest clearance (millimetres)	95mm
Footrest length (millimetres)	115mm
Footrest to leg angle (degrees)	88.9°
Leg to seat surface angle (degrees)	104.6°
Armrest height (millimetres)	233mm
Front of armrest to back support [front of armrest to backrest] (millimetres)	315mm
Handrim diameter (millimetres)	530mm
Manoeuvring wheel diameter [propelling wheel diameter] (millimetres)	610mm
Wheelbase (millimetres)	420mm
Camber (degrees)	0°
Horizontal location of wheel axle (millimetres)	0mm
Vertical location of wheel axle (millimetres)	160mm
Castor wheel diameter (millimetres)	195mm
Castor trail (millimetres)	35mm
Track of drive wheel or manoeuvring wheels [drive wheel track width]	mid-position
Track of castor wheels or pivot wheels [castor wheel track width]	mid-position
Movable wheel, horizontal position [castor stem housing position, horizontal]	mid-position
Movable wheel, vertical position [castor stem housing position, vertical]	mid-position
Movable wheel, vertical axle position [castor wheel axle position, vertical]	mid-position
Castor rake [castor stem angle, fore-aft plane] (degrees)	vertical
Castor cant [castor stem angle, lateral plane] (degrees)	vertical

^a Since the nominal seat width (as measured in ISO 7176-7 as "seat width") is measured in various ways the results are not comparable. Therefore, the effective seat width is used as the reference

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

9 of 32

value since this dimension both provides reliable comparison between the values and meets the occupant's real needs.

^b These adjustments are used only when they do not conflict with any seating adjustments.

ISO 7176-7:1998			
dimension	Fixed or minimum value	Maximum value if relevant	number of increments
Dimension 1:Seat plane angle	2.0°	/	/
Dimension 2:Effective seat depth	450mm	/	/
Dimension 3:Seat width	440mm	/	/
Dimension 4:Effective seat width	465mm	/	/
Dimension 5:Seat surface height at front edge	485mm	/	/
Dimension 6:Backrest angle	7.0°	/	/
Dimension 7:Backrest height	405mm	/	/
Dimension 8:Backrest width	450mm	/	/
Dimension 9:Headrest in front of backrest	N.A.	/	/
Dimension 10:Headrest height above seat	N.A.	/	/
Dimension 11:Footrest to seat	405mm	/	/
Dimension 12:Footrest clearance	95mm	/	/
Dimension 13:Footrest length	115mm	/	/
Dimension 14:Footrest-to-leg angle	88.9°	/	/
Dimension 15: leg-to-seat-surface angle	104.6°	/	/
Dimension 16:Armrest height	233mm	/	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

10 of 32

Dimension 17:Front-of-armrest backrest	315mm	/	/
Dimension 18:Armrest length	330mm	/	/
Dimension 19:Armrest width	50mm	/	/
Dimension 20:Armrest angle	3.0°	/	/
Dimension 21:Distance between armrests	470mm	/	/
Dimension 22:Front location of armrest structure	315mm	/	/
Dimension 23:Handrim diameter	533mm	/	/
Dimension 24:Propelling wheel diameter	610mm	/	/
Dimension 25:Horizontal displacement of wheel axle	0mm	/	/
Dimension 26:Vertical displacement of wheel axle	160mm	/	/
Dimension 27:Castor wheel diameter	200mm	/	/

The settings of adjustable parts					
№	instruction				
1	RLG	<input type="checkbox"/> child <input checked="" type="checkbox"/> adult			
2	The special require of RLG	none			
3	a description of how the wheelchair was equipped				
b	Castor stem	N.A.	c	Body support system`s position relative to the frame	N.A.
d	Adjustable seats	N.A.	e	Adjustable backrests	N.A.

Rehabilitation Technical Aids Quality Supervision & Test Center National Research Center for Rehabilitation Technical Aids Test Report

No 224/2024

11 of 32

f	Adjustable foot supports	N.A.	g	Wheels with adjustable camber	N.A.
h	Range of camber	N.A.	i	Adjusted drive wheels to horizontally	N.A.
j	Adjusted drive wheels to vertically	N.A.	k	Adjusted castor to horizontally	N.A.
l	Adjusted castor to vertically	N.A.	m	Width between castor	N.A.
n	The position of any castor wheel for height within the castor fork	N.A.	o	Position the lowest part of the leg support/footrest	N.A.
p	Other option	N.A.			

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

13 of 32

Test Item	Standard Clause	Performance Indicators		Test Results	Notes
Static strength	8	Scooter steering handles: Resistance to forward forces	$450 \pm 14N$	N.A.	/
		Scooter steering handles: Resistance to rearward forces	$450 \pm 14N$	N.A.	/
		Scooter steering handles: Resistance to downward forces	$F_1 = \frac{M_d \times S \times g}{2 \times \cos 15^\circ}$	N.A.	/
		Scooter steering handles: Resistance to upward forces	$F_7 = \frac{(M_d + M_w) \times S \times g}{3}$	N.A.	/
Impact strength	9	Back support	The mass is touching the backrest at a point 30 mm below the top of the backrest. The pendulum is supported so that the rigid bar is at an angle of $30^\circ \pm 2^\circ$ to the vertical and then it falls freely and strikes the back support	Pass	/
		Handrim	Raise the pendulum so that its longitudinal axis is at $45^\circ \pm 2^\circ$ to the vertical and then release it so that it strikes the handrim	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

12 of 32

ISO 7176-8:2014					
Test Item	Standard Clause	Performance Indicators		Test Results	Notes
Static strength	8	Arm supports: Resistance to downward forces	$F_1 = \frac{M_d \times S \times g}{2 \times \cos 15^\circ}$	952N Pass	/
		Foot supports: Resistance to downward forces	$F_2 = M_d \times g$	1226N Pass	/
		Tipping levers	$F_3 = 1.33 \times (M_w + M_d) \times g$	1000N Pass	/
		Handgrips	$F_4 = 0.52 \times (M_w + M_d) \times g \times S$	750N Pass	/
		Arm supports: Resistance to upward forces	$F_5 = \frac{(M_d + M_w) \times S \times g}{2 \times \cos 10^\circ}$	866N Pass	/
		Foot supports: Resistance to upward forces	For wheelchairs with two separate foot supports $F_6 = \frac{(M_d + M_w) \times S \times g}{4}$, For one-piece foot support $F_6 = \frac{(M_d + M_w) \times S \times g}{2}$	427N Pass	/
		Push handles: Resistance to upward load	For manual wheelchairs with two push handles $F_7 = \frac{(M_d + M_w) \times S \times g}{3}$, For manual wheelchairs with transverse bar handles $F_8 = \frac{2 \times (M_d + M_w) \times S \times g}{3}$	1037N Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

14 of 32

Test Item	Standard Clause	Performance Indicators		Test Results	Notes
Impact strength	9	Castors	The castor is set up so that it is to be tested aligned at $45^\circ \pm 5^\circ$ to the longitudinal axis of the wheelchair. The angle of swing is calculated from following equation: $\cos \theta = 1 - (M_d + M_w) / 377$, Raise the pendulum so that its longitudinal axis is at $\theta_0 \pm 3^\circ$ to the vertical and then release it so that it strikes the castor wheel.	$\theta = 51^\circ$ Pass	/
			Lateral impact: Raise the pendulum so that its longitudinal axis is at $\theta_0 \pm 3^\circ$ to the vertical and then release it so that it strikes the foot supports.	$\theta = 51^\circ$ Pass	/
		Foot supports	Longitudinal impact: The footrest pendulum is suspended so that its centre of percussion touches that part of the footrest which is furthest forward and furthest from the wheelchair longitudinal centreline; its plane of swing is parallel to the wheelchair longitudinal centreline; the longitudinal axis of the pendulum is vertical.	$\theta = 51^\circ$ Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

15 of 32

Test Item	Standard Clause	Performance Indicators		Test Results	Notes	
Impact strength	9	Anti-tip devices	Upward impacts on anti-tip devices	Drive wheelchair off the curb .The height of the curb is $h_1 + 15\text{mm}$	Pass	/
			Forward or rearward impacts on anti-tip devices	The angle of swing is calculated from following equation: $\text{Cos } \theta = 1 - (M_d + M_w) / 377$ Raise the pendulum so that its longitudinal axis is at $\theta_0^{+3^\circ}$ to the vertical and then release it so that it strikes the anti-tip devices	Pass	/
			Lateral impacts on anti-tip devices: Anti-tip devices at front of the wheelchair	The anti-tip devices to be tested aligned at $45^\circ \pm 5^\circ$ to the impact pendulum, The angle of swing is calculated from following equation: $\text{Cos } \theta = 1 - (M_d + M_w) / 377$ Raise the pendulum so that its longitudinal axis is at $\theta_0^{+3^\circ}$ to the vertical and then release it so that it strikes the anti-tip devices	N.A.	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

16 of 32

Test Item	Standard Clause	Performance Indicators		Test Results	Notes	
Impact strength	9	Anti-tip devices	Lateral impacts on anti-tip devices: Anti-tip devices at rear of the wheelchair	The anti-tip devices to be tested aligned at $45^\circ \pm 5^\circ$ to the impact pendulum, The angle of swing is calculated from following equation: $\text{Cos } \theta = 1 - (M_d + M_w) / 892$ Raise the pendulum so that its longitudinal axis is at $\theta_0 \pm 3^\circ$ to the vertical and then release it so that it strikes the anti-tip devices	$\theta = 33^\circ$ Pass	/
Fatigue test	10	Multi-drum test		The reference drum surface shall run at $1.0 \text{ m/s} \pm 0,1 \text{ m/s}$. The test is finished, when the drum had run 200,000 revolutions or any higher figure claimed by the manufacturer.	Pass	/
		Drop-Test		The wheelchair is dropped freely from a height of $50 \text{ mm} \pm 5 \text{ mm}$. The test is finished, when the process had been repeated 6,666 time resp. if the manufacturer claims that the wheelchair exceeds the min. requirement, 1/30 times the number of cycles of the two-drum test.	Pass	/
		Manually operated parking brakes		Move the lever of the brake smoothly from non-braking position to braking position and back for 60000 cycles at a frequency of not more than 0.5Hz	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center National Research Center for Rehabilitation Technical Aids Test Report

No 224/2024

17 of 32

The settings of adjustable parts		
No	instruction	
1		
2	loading	<input checked="" type="checkbox"/> test dummy: 125kg <input type="checkbox"/> person: driver :90kg, weights:10kg

Rehabilitation Technical Aids Quality Supervision & Test Center
National Research Center for Rehabilitation Technical Aids
Test Report

No 224/2024

18 of 32

Test procedure in accordance to ISO 7176-11:2012			
Masses of segments			
Dummy mass range	m_{torso}	m_{thigh}	m_{leg}
$M_{dummy}=125kg$	61kg	56kg	8kg

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

19 of 32

Test procedure in accordance to ISO 7176-13:1989			
Test Item	Performance Indicators	Test Results	Notes
Calculate the coefficient of friction, μ F1=48N F2=48N $\mu=0.96$			
the coefficient of friction, μ	The test surface shall be considered to be acceptable if it has a coefficient of friction between 0.75 and 1 as measured in accordance with the test method specified in this part of ISO 7176 on each of the three representative surfaces	$\mu=0.96$ pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

20 of 32

ISO 7176-15:1996				
Test Item	Standard Clause	Performance Indicators	Test Results	Notes
General	7.1	a) The specification sheets (see clause 5); b) a statement as to which features and options are included in specific models of wheelchairs; c) a description of the intended use,(for example ,maximum mass of the user, or indoor/outdoor use); d) either i) details of the warranty or ii) if no warranty is provided ,a statement to that effect; e) information on how to get repairs service; f) information as to whether manual is available; g) a user manual.	Pass	/
User manual	7.2.1	At least one copy of the user manual shall be supplied with each wheelchair	Pass	/
User manual	7.2.2	When illustrations show components that are referred to in the next of the user manual, these components shall be numbered or named for positive identification. Illustration shall be numbered or named for positive identification.	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

21 of 32

Test Item	Standard Clause	Performance Indicators	Test Results	Notes
Content of the manual	7.3	<p>User manuals shall contain the following information:</p> <ul style="list-style-type: none"> a) Details of the warranty as specified in 7.1 d); b) General characteristics as follows: <ul style="list-style-type: none"> i) Description of the wheelchair type, accompanied by pictures or drawings of the wheelchair and a nontechnical description of how the wheelchair is intended to be used ii) Description of the intended user, including maximum occupant mass iii) The environment in which the wheelchair is intended to be used and any environmental conditions that might be harmful to the wheelchair, such as temperature and humidity iv) if pneumatic tyres are fitted, the recommended inflation pressure or pressure range, given in kilopascals c) if a wheelchair is marketed for user-assembly, the following information: <ul style="list-style-type: none"> i) a list of components ii) information about any tools or equipment needed to assemble the wheelchair iii) instructions on how to inspect for missing or damaged parts 	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center National Research Center for Rehabilitation Technical Aids Test Report

No 224/2024

22 of 32

Test Item	Standard Clause	Performance Indicators	Test Results	Notes
<p>Content of the manual</p>	<p>7.3</p>	<p>iv) instructions for assembling, installing and removing any parts supplied by the manufacturer needed to assemble the wheelchair</p> <p>v) instructions on how to prepare the wheelchair for storage, shipment or travel, for example, removal of any batteries</p> <p>d) instructions for operation of the wheelchair as follows:</p> <p>i) complete operating instructions for safe use including:</p> <ul style="list-style-type: none"> ---instructions for operating the wheelchair on surfaces likely to be encountered by the user ---instructions for transfer of the user to and from the wheelchair ---illustrations to clarify these instructions; NOTE-illustrations should be given for the following situations: ramps, steep terrain kerbs and steps, and transfer <p>e) maintenance instructions accompanied by annotated illustrations, and the following information</p> <p>i) details of any maintenance, including:</p> <ul style="list-style-type: none"> ---any service, maintenance and/or fault-finding for which the manufacturer intends the user to be responsible ---information about the type of tools or equipment needed to repair and service the wheelchair ---frequency of maintenance ---a list of materials necessary, including any part numbers and procurement information. 	<p>Pass</p>	<p>/</p>

Rehabilitation Technical Aids Quality Supervision & Test Center National Research Center for Rehabilitation Technical Aids Test Report

No 224/2024

23 of 32

Test Item	Standard Clause	Performance Indicators	Test Results	Notes
Content of the manual	7.3	<p>---identification of circumstances in which an operation should be undertaken by the manufacturer, distributor or service agent</p> <p>ii) instructions on methods of cleaning,</p> <p>iii) for parts that the manufacturer intends to be readily replaced, the following: ---ordering information ---instructions for access removal, ---replacement and testing, and ---annotated illustrations of the parts (including tyres and batteries) and their location</p> <p>iv) information on how to perform potentially hazardous maintenance operations, such as battery servicing and tyre inflation</p> <p>f) instructions for carrying out performance checks;</p> <p>g) description of wheelchair repair procedures as follows: i) identification of parts that are intended to be repaired by the user ii) identification of parts that have to be serviced by the manufacturer or an authorized service facility in order to maintain warranties and serviceability iii) identification of any parts that can be removed and sent to the manufacturer /distributor or other party for repair iv) identification of circumstances in which the manufacturer, distributor or service agent should undertake the repair v) a list of authorized service facilities</p>	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

24 of 32

Test Item	Standard Clause	Performance Indicators	Test Results	Notes
Content of the manual	7.3	vi) information on whether or not any replacement units are available vii) packing and shipping instructions when necessary	Pass	/
Permanent labelling	8.1	The following shall be marked in a permanent manner on each wheelchair; a) the name and address of the manufacturer of the wheelchair; b) the model designation and serial number of the wheelchair; c) the year of manufacture; d) any driving restrictions; e) recommended maximum mass of the user.	Pass	/
	8.2	Tyres shall be marked with the size of the tyre	Pass	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

No 224/2024

25 of 32

Test procedure in accordance to ISO 7176-22:2014		
Actual equipment		
equipment	Type of equipment (size, article number etc.)	Value/position/measure
Body support system	/	/
Seat	440mm	/
Back support	450mm	/
Head support	N.A.	N.A.
Cushion	N.A.	N.A.
Wheel suspensions	N.A.	N.A.
Tyres	pneumatic tyre	/
Braking system	/	/
Motor	N.A.	N.A.
Batteries	N.A.	N.A.
Storage unit (f.i. basket)	N.A.	N.A.
Backpack carrier or permission	N.A.	N.A.
Oxygen bottle carrier	N.A.	N.A.
Transfusion container carrier	N.A.	N.A.
Urine collection bag carrier	N.A.	N.A.
NOTE cite N.A. for items that are not adjustable or applicable		

Actual dimensions for seating and ergonomics		
Adjustable part	Type of equipment (size, article number etc.)	Value/position/measure
Seat plane angle	2.0°	/
Effective seat depth	450mm	/
Effective seat width	465mm	/
Seat surface height at front edge	485mm	/
Back support angle	7.0°	/
Back support height	405mm	/
Handgrip height	913mm	/
Back support width	450mm	/
EITHER Footrest to seat	405mm	/
OR Foot support clearance	95mm	/
Foot support length	115mm	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

26 of 32

Foot support to leg angle		88.9°	/
Leg to seat surface angle		104.6°	/
Arm support height		233mm	/
Front of arm support to back support		315mm	/
Wheelchair with handrims	Handrim diameter	530mm	/
	Manoeuvring wheels, diameter	610mm	/
	Wheelbase	420mm	/
	Camber	0°	/
	Manoeuvring wheels, horizontal position	0mm	/
	Manoeuvring wheels, vertical position	160mm	/
	Castor wheels, diameter	195mm	/
NOTE cite N.A. for items that are not adjustable or applicable			

Actual adjustments of the chassis			
Adjustable part		Type of equipment (size, article number etc.)	Value/position/measure
Wheelchair chair with handrims	Manoeuvring wheels, track	545mm	/
	Manoeuvring wheels, air pressure	/	/
	Castor wheels, track	485mm	/
	Castor stem housings, horizontal position	90°	/
	Castor stem housings, vertical	0	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

27 of 32

	position		
	Castor wheel axle, vertical position in fork	0	/
	Castor wheels, air pressure	N.A.	N.A.
Wheelchair chair without handrims	Fixed wheels, diameter	N.A.	N.A.
	Fixed wheels, horizontal position	N.A.	N.A.
	Fixed wheels, vertical position	N.A.	N.A.
	Fixed wheels, camber	N.A.	N.A.
	Fixed wheels, track	N.A.	N.A.
	Fixed wheels, air pressure	N.A.	N.A.
	Movable wheels, diameter	N.A.	N.A.
	Movable wheels, horizontal position	N.A.	N.A.
	Movable wheels, vertical position	N.A.	N.A.
	Movable wheels, track	N.A.	N.A.
	Movable wheels axles, vertical position in fork	N.A.	N.A.
	Movable wheels axles, air pressure	N.A.	N.A.
	Castor rake	0	/
	Castor cant	0	/
	Castor trail	35mm	/
	Anti-tip device	/	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

28 of 32

Kerb climber	N.A.	N.A.
Tiller distance to back support	N.A.	N.A.
Other adjustable components	N.A.	N.A.
Distance between the brake blocks and their contact surfaces	10mm	/
NOTE cite N.A. for items that are not adjustable or applicable		

Actual electrical settings		
Adjustable part	Type of equipment (size, article number etc.)	Value/position/measure
Batteries	N.A.	N.A.
Position of the joystick	N.A.	N.A.
Electrical settings	N.A.	N.A.
Other electrical control devices	N.A.	N.A.
Other adjustable components	N.A.	N.A.
NOTE cite N.A. for items that are not adjustable or applicable		

Final adjustment		
Adjustable part	Type of equipment (size, article number etc.)	Value/position/measure
Castor rake, left castor wheel(see NOTE 1)	0	/
Castor rake, right castor wheel(see NOTE 1)	0	/
Difference between left and right(see NOTE 1)	0	/
Castor cant, left castor wheel(see NOTE 2)	0	/
Castor cant, right castor wheel(see NOTE 2)	0	/
Asymmetry between left and right(see NOTE 2)	0	/
Distance between the brake blocks and their contact surfaces	0	/

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

29 of 32

NOTE 1 The measurement method is in ISO 7176-5, A.18. See also NOTE 1 in Clause 7.
 NOTE 2 The measurement method is in ISO 7176-5, A.19. See also NOTE 2 in Clause 7.
 NOTE 3 cite N.A. for items that are not adjustable or applicable

Loading of the wheelchair		
Adjustable part	Type of equipment (size, article number etc.)	Value/position/measure
Rated load OR	/	125kg
Maximum occupant mass	/	125kg
Dummy size	125kg	125kg
Torso loading plate	61kg	61kg
Thighs loading plate	56kg	56kg
Calculated seat-to-back angle (see 8.2,a)	/	92°
Dummy`s actual seat-to-back angle	/	89°
Test dummy securement	/	Tape
Human test occupant, mass + supplemental mass	/	125kg
Accessory mass (see 8.5)	/	N.A.

Rehabilitation Technical Aids Quality Supervision & Test Center

National Research Center for Rehabilitation Technical Aids

Test Report

№ 224/2024

30 of 32

ISO 16840-10:2021			
The following test results relate only to the ignitability of the combination of materials under the particular conditions of the test. They are not intended as a means of assessing the full potential hazard of a complete wheelchair			
Sample location: postural support device			
Test Item	Standard Clause	Performance Indicators	Test results
Horizontal test	7.1	a) show no evidence of flaming in the interior and/or surface during or after the test, and;	Pass
Vertical test	7.2	b) show no evidence of progressive smouldering 20 s \pm 1 s after the end of the maximum temperature plateau of the temperature heating curve.	

Rehabilitation Technical Aids Quality Supervision & Test Center
National Research Center for Rehabilitation Technical Aids
Test Report

No 224/2024

31 of 32

Photo Page



front



back



lateral



perspective

Rehabilitation Technical Aids Quality Supervision & Test Center National Research Center for Rehabilitation Technical Aids Test Report

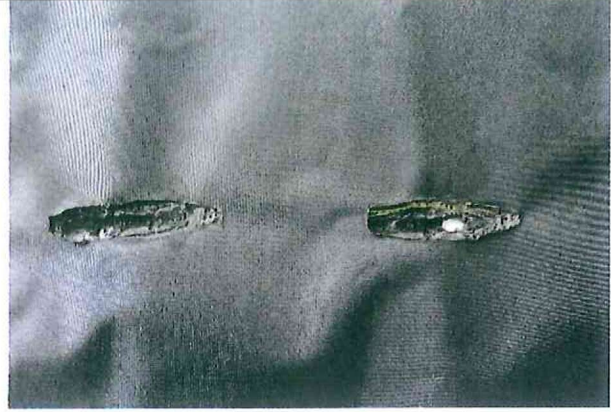
No 224/2024

32 of 32

Photo Page



postural support device
Vertical test



postural support device
Horizontal test

