



POLISH CENTRE FOR TESTING AND CERTIFICATION

02-699 Warszawa, ul. Kłobucka 23A

Mechanical Laboratory

tel.: (+48 22) 46 45 594; fax: (+48 22) 46 45 563

e-mail: labmech@pcbc.gov.pl

FRL 15 – 03.09

Date 10. 11. 2010

TEST REPORT NO. BR –175/L-203/2010

Page 1 of 5

Subject of testing:	<i>Manually propelled wheelchair</i>	Classification according to PN-EN ISO 9999:2007 :	12 21 06
Type / Model:	<i>DOLPHIN</i>	Factory ref. no.:	<i>207851</i>
Manufacturer:	<i>MOBILEX A/S, Noerskovvej 1 DK - 8660 Skanderborg</i>	Number of specimens:	<i>1</i>
Applicant:	<i>A-Net s.c. 93-469 Łódź, ul. Łaskowice 174</i>		
Kind of testing	<i>Testing scope according to application of Client Mechanical testing for conformity with PN – ISO 7176 – 8:2002</i>		

Test started: 5.10.2010

Test finished: 10.11.2010

Performed by:

Szymański
Miroslaw Szymański

Checked by:

Ireneusz Czerwiński
Ireneusz Czerwiński

Approved by:

KIEROWNIK
LABORATORIUM MECHANICZNEGO
mgr inż. Andrzej Tkaczyk

Special comments / enclosures:

1) Annex 1: *Identyfication of wheelchair elements*

Copyright © 2005 by Polish Centre for Testing and Certification (applicable to report form)

Test results refer only to tested units.

Test results reported here are not applicable to the further modifications of the product affecting its structure, material or technology.

This test report shall be neither copied differently as in the whole nor be published without written consent of the Laboratory.



CHARACTERISTIC OF MANUALLY PROPELLED WHEELCHAIR

Name of wheelchair: <i>DOLPHIN</i>		Factory ref. no. 207851	
Maximum load capacity: <i>150kg</i>		Overall mass of wheelchair: <i>18,4kg</i>	
Description			Comments
Dimensions:	Length:	<i>1030/1050/1070mm</i>	
	Height (max./min.):	<i>990mm - 1080mm</i>	
	Width:	<i>723mm</i>	
Construction of frame:	Material:	<i>Aluminum alloy</i>	
	Method of fastening frame elements:	<i>Welding</i>	
	Folding/unfolding:	<i>Folding</i>	
Drive wheels	Ø external:	<i>534mm</i>	
	Ø pipe:	<i>19mm</i>	
	Material:	<i>Aluminum alloy</i>	
	Way of fastening to driven wheel:	<i>Bolts, nuts</i>	
	Number of fastening points to driven wheel:	<i>6</i>	
Driving wheels	Material of ring of a wheel:	<i>Aluminum alloy</i>	
	Dimension of tyre:	<i>24"x1 3/8" (37x540mm)</i>	
	Pressure:	<i>N/A</i>	
	Way of fastening wheel to construction:	<i>Quick connector</i>	
	Vertical adjustment (number of fixing positions)	<i>YES 6</i>	
	Horizontal adjustment (number of fixing positions):	<i>YES 3</i>	
	Inclination angle adjustment:	<i>NO</i>	
	Inclination angle:	<i>0,8°</i>	
Castor wheels	Ø of wheel:	<i>198mm</i>	
	Width:	<i>44mm</i>	
	Material of ring of a wheel:	<i>Plastic</i>	
	Material of fork:	<i>Aluminum alloy</i>	
	Vertical adjustment (number of fixing positions)	<i>YES 4</i>	
	Horizontal adjustment (number of fixing positions):	<i>NO</i>	
	Adjustment of axis inclination angle:	<i>YES</i>	
Backrest	Folding/unfolding:	<i>Unfolding</i>	
	Backrest inclination adjustment	stepless:	<i>NO</i>
		number of fixing positions	<i>NO</i>
Tilt levers	Two singular:	<i>YES</i>	
	One lateral:	<i>NO</i>	
Push handles	Kind:	<i>Two separate</i>	
Parking brake	Left:	<i>YES</i>	
	Right:	<i>YES</i>	
	Kind:	<i>Lever</i>	
	Material of lever:	<i>Steel, plastic</i>	
	Fastening to frame:	<i>bolt, nut</i>	
	Way of adjustment:	<i>With screws and clamp stabilizing position of break towards tyre</i>	
Upholstery	Material:	<i>Nylon</i>	
	Colour:	<i>Black</i>	
Wheel space in forward direction position:		<i>375/395/415mm</i>	
Wheel space in backward direction position:		<i>475/495/515mm</i>	

Legrests	Common for both legs:	<i>NO</i>	
	Separate for each leg:	<i>YES</i>	
	Stationary:	<i>NO</i>	
	Folding:	<i>YES</i>	
	Vertical adjustment (number of fixing positions)	<i>YES 5</i>	
	Horizontal adjustment (number of fixing positions):	<i>NO</i>	
	Angle adjustment (number of fixing positions):	<i>NO</i>	
	Material of legrest:	<i>Aluminum alloy Plastic</i>	
Accessories	Seat belt	<i>NO Possibility of fixing seat belt</i>	<i>Note in service manual</i>
	Service :	<i>YES</i>	

PHOTO OF WHEELCHAIR

TESTING

NORMATIVE REFERENCES

	Applied
PN-EN 12182:2005 Technical aids for disabled persons – General requirements and test methods	NO
EN 12183:2009 Manually propelled wheelchairs – Requirements and test methods	NO
PN-EN 12184:2005 Electrically powered wheelchairs, scooters and their chargers – Requirements and test method	NO
ISO 7176-1:1999 Wheelchairs – Determination of static stability	NO
PN-ISO 7176-2:1998 Wheelchairs – Determination of dynamic stability of electric wheelchairs	NO
PN-ISO 7176-3:1998 Wheelchairs – Determination of efficiency of brakes	NO
ISO 7176-4:1997 Wheelchairs – Energy consumption of electric wheelchairs and scooters and determination of theoretical distance	NO
PN-ISO 7176-5:2001 Wheelchairs – Determination of overall dimensions, mass and turning space	NO
PN-ISO 7176-6:1998 Wheelchairs – Determination of maximum speed, acceleration and retardation of electric wheelchairs	NO
PN-ISO 7176-7:2001 Wheelchairs – Measurement of seating and wheel dimensions	NO
PN-ISO 7176-8:2002 Wheelchairs – Requirements and test methods for static, impact and fatigue strengths	YES
ISO 7176-9:2001 Wheelchairs – Climatic test for electric wheelchairs	NO
PN-ISO 7176-10:1998 Wheelchairs – Determination of obstacle-climbing ability of electric wheelchairs	NO
PN-ISO 7176-14:2001 Wheelchairs – Power and control systems for electric wheelchairs – Requirements and test methods	NO (Electrotechnical Laboratory)
PN-ISO 7176-15: 2002 Wheelchairs – Requirements for informative disclosure, documentation and labelling	NO
PN-ISO 7176-16:2001 equivalent: PN-90/P-04823 Wheelchairs. Resistance to ignition of upholstered parts – Requirements and test methods	NO

Note: Wheelchair with adjustment elements regulated in a factory was performed

TEST RESULTS according to PN-ISO 7176-8

Requirements according to clause	Test method according to clause	Checked characteristics/assemblies/parameters	Real value	Test result	Comments
4.	8.4.	Armrest – resistance to forces acting downwards	Conf.	Pos.	loading 1140N
4.	8.5.	Footrests - resistance to forces acting upwards	Conf.	Pos.	loading 1500N
4.	8.6.	Anti-tip levers	Conf.	Pos.	loading 1500N
4.	8.7.	Grips	Conf.	Pos.	loading 1125N
4.	8.8.	Armrest – forces acting upwards	Conf.	Pos.	loading 1196N on each armrest (siderest)
4.	8.9.	Footrest – forces acting upwards	--	N/A	
4.	8.10.	Handle grips for pushing – load acting upwards	Conf.	Pos.	loading 1320N on each handle grip
4.	9.3.	Backrest – impact strength	Conf.	Pos.	25kg pendulum impact
4.	9.4.	Driving wheel – impact strength	Conf.	Pos.	10kg pendulum impact
4.	9.5.	Castor/front wheel – impact strength	Conf.	Pos.	10kg pendulum impact
4.	9.6.3.	Footrest – side impact	Conf.	Pos.	10kg pendulum impact
4.	9.6.4.	Footrest – in-line impact	Conf.	Pos.	10kg pendulum impact
4.	9.7.2.	Frontal part of wheelchair – directly impact	Conf.	Pos.	10kg pendulum impact
4.	9.7.3.	Frontal part of wheelchair – displaced impact	Conf.	Pos.	10kg pendulum impact
4.	10.4.2.	Testing of manually propelled wheelchair on two-drum machine	Conf.	Pos.	200 000 of cycles with full loading of wheelchair (150kg)
4.	10.4.3.	Measurement of initial current for electrically powered wheelchair	--	N/A	
4.	10.4.4.	Testing of electrically powered wheelchair on two-drum machine	--	N/A	
4.	10.5.	Drop testing	Conf.	Pos.	6666 drops of wheelchair with full loading (150kg) from height of 50mm

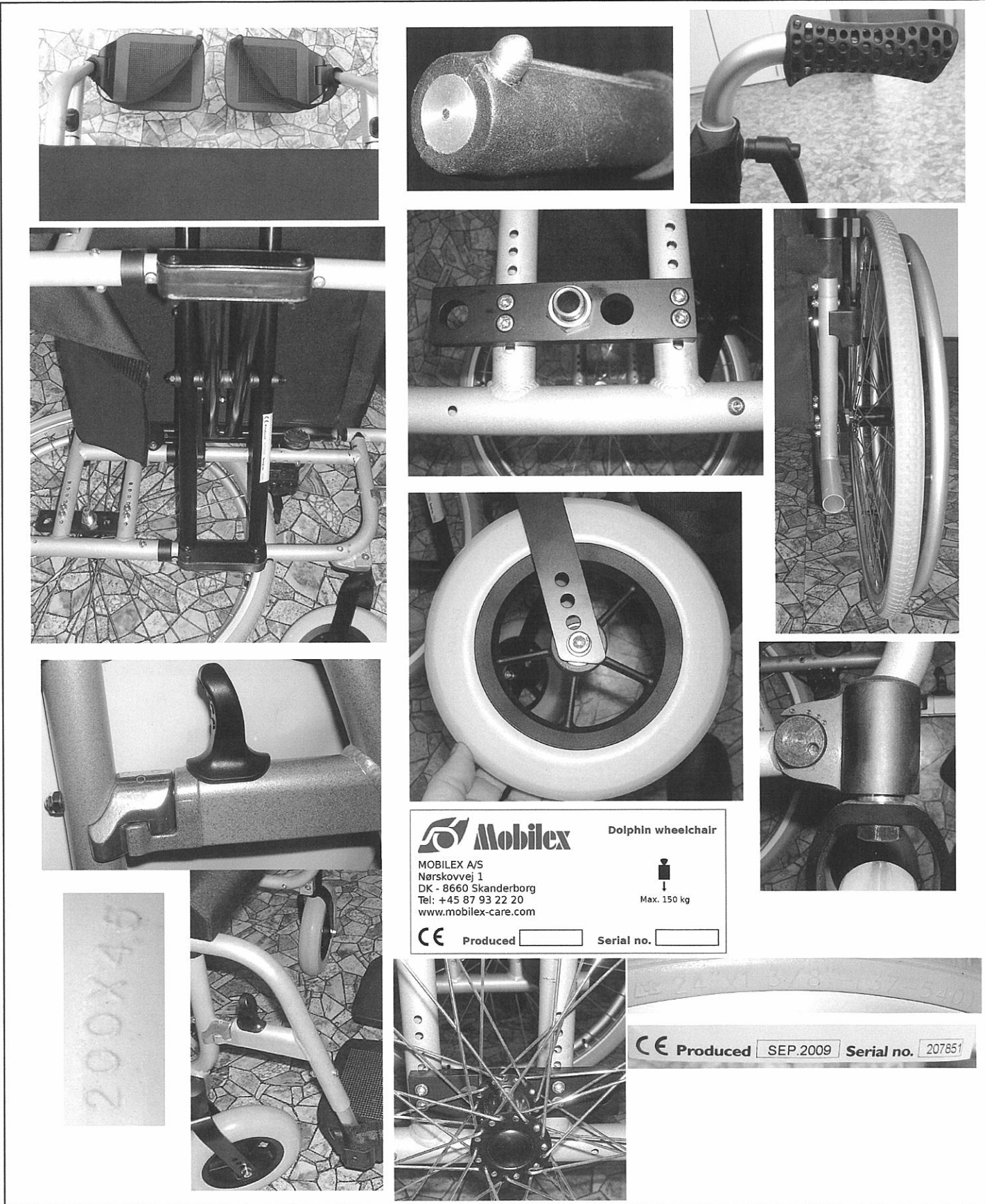
Pos. – positive; Neg – negative; N/T – not tested; N/A – not applicable; N/R – not required, N/O – not occurred, V/I.- visual inspection, Conf.- conformed.


Final assessment	
PN-EN 12182:2005	<i>N/T</i>
EN 12183:2009	<i>N/T</i>
PN-EN 12184:2005	<i>N/A</i>
ISO 7176-1:1999	<i>N/T</i>
PN-ISO 7176-2:1998	<i>N/A</i>
PN-ISO 7176-3:1998	<i>N/T</i>
ISO 7176-4:1997	<i>N/A</i>
PN-ISO 7176-5:2001	<i>N/T</i>
PN-ISO 7176-6:1998	<i>N/A</i>
PN-ISO 7176-7:2001	<i>N/T</i>
PN-ISO 7176-8:2002	<i>Pos.</i>
ISO 7176-9:2001	<i>N/A</i>
PN-ISO 7176-10:1998	<i>N/A</i>
PN-ISO 7176-14:2001	<i>N/A</i>
PN-ISO 7176-15: 2002	<i>N/T</i>
PN-ISO 7176-16:2001	<i>N/T</i>

Pos. – positive, N/T – not tested, N/A – not applicable

- END -

ANNEX 1 TO TEST REPORT No. BR – 175/L-203/2010
Identification of wheelchair elements



 **Mobilex** Dolphin wheelchair

MOBILEX A/S
 Nørskovvej 1
 DK - 8660 Skanderborg
 Tel: +45 87 93 22 20
 www.mobilex-care.com

 Max. 150 kg

CE Produced Serial no.

200X45

CE Produced SEP.2009 Serial no. 207851