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## Technical Report No. 71356445

Revision: 1

dated 2009-08-21

Client: Invacare Deutschland GmbH  
Kleiststrasse 49

D - 32457 Porta Westfalica

Manufacturing place: Invacare Deutschland GmbH  
Kleiststrasse 49

D - 32457 Porta Westfalica

Test object: Type / model: *Storm<sup>4</sup>*  
Classification acc. to. DIN EN ISO 9999: 2007 12 21 27  
Class of use: B  
Max. user weight: 150 kg

Test specifications: DIN EN 12184: 1999

Purpose of examination: 1. re-testing due to the points of non-compliances as listed in the Technical Report no. 71353180 according to the test specifications.

Test result: The test subject was found to be in compliance with the test specifications.

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## 1 Description of the test subject

The electrically driven wheelchair presented for testing is designed to operate in indoor and outdoor environment. The wheelchair can be rear wheel driven. The version presented for testing is electrically adjustable in the seat inclination, in the back rest and in the seat height. The max. load is 150 kg.



### 1.1 Technical Data

Test subject:	Electrically driven wheelchair
Model:	<i>Storm<sup>4</sup></i>
Class of use:	B
Total height:	1030 mm – 1310 mm
Total length:	1100 mm
Width of the chassis:	630 mm
Seat width:	380 mm – 530 mm
Obstacle height:	100 mm
Max. speed:	10 km/h
Max. load:	150 kg
Max. safe slope:	8° (15%, in the standard seat position as specified by the manufacturer)
Driving motor:	Invacare Deutschland GmbH, model no.: 1524521
Drive of the adjustment of the seat angle:	Reac, model: RE20/23
Telescopic lifting column:	Danaher Motion, model: movoact TC16
Drive of the adjustment of the back rest:	Nidec-Valeo, model: GMPG
Power electronics:	Dynamic Controls Ltd, type: DX-2
Batteries:	MK Battery, 2 × (12 V, 73 Ah (20hr)), model: 8G24FT



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Battery charger:

CTE Corporation, model: BAT-GCO812,  
24 VDC, 8 A

Shanghai Winsunny Electronics Tech. Co.,  
Ltd., model: WS230-1, 24 VDC, 8 A

## 2 Order

### 2.1 Date of Purchase Order

The testing of the electrically driven wheelchair has been carried out per purchase order of Invacare Deutschland GmbH dated at 2009-05-06.

### 2.2 Date of Receipt of Test Subject

The testing has been performed at TÜV SÜD Product Service, Masurenweg 1-3, D-30163 Hanover. The test subjects were delivered to the test laboratory as follows:

2009-05-07 (HAN-94707) Storm 4 version 1

2009-05-29 (HAN-95317) Storm 4 version 2

2009-07-13 (HAN-96352) seat carrier

2009-07-15 (HAN-96397) Storm 4 version 3

## 3 Result

The points of non-compliance as listed in the Technical Report No. 71353180 were removed at the test subject and documents presented for re-testing.

## 4 Remarks

Motorised wheelchairs are motor vehicles according to the traffic law (§1, chapter 2). Wheelchairs which shall be operated on public roads have to fulfil the requirements of the German Traffic Law (StVZO), of the Road Traffic Regulations (StVO) as well as of the FZV (Fahrzeugzulassungsverordnung). This also applies to motorized wheelchairs with a design-related maximum speed of 6 km/h (see also §18 StVZO, explanation 1).

## 5 Summary

The test subject was found to be in compliance with the test specifications.

TÜV SÜD Product Service GmbH

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