Test Report

MILLBROOK

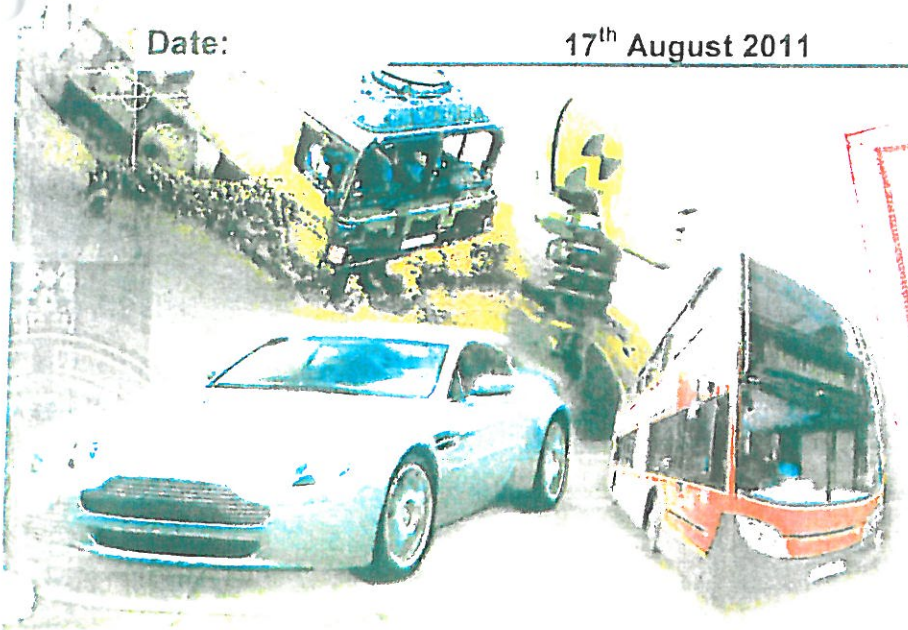
CLIENT CONFIDENTIAL

Client	Invacare Deutschland GmbH
Test Item	M41
Test	ISO 7176-19 Wheelchair Test
Millbrook Report No.	11/0585
Millbrook Project No.	CR0141-007-01
Millbrook Test No.	S11772

Author: _____ O. King Engineer

Approved: _____ A. Mulligan Engineer

Date: 17th August 2011



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Distribution

Organisation	Recipient	Format	Qty
INVACARE Deutschland GmbH Kleiststraße 49 D-32457 Porta Westfalica	D. Hoffmann	PDF	1
Millbrook Proving Ground Ltd Millbrook Bedford MK45 2JQ	Contract file	PDF	1

Report Revision History

Rev.	Revision Description	Date	Author	Approver	Pages
0	Initial release	17th August 2010	O. King	A. Mulligan	All

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Test Facility and Date

The test, number S11772, was performed on 16th August 2011 at the HyGE Sled facility at Millbrook Proving Ground Ltd.

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Test Results

ISO/NP 7176/19
16th August 2011
Section 5.2 - Dynamic Performance Requirements

Test No: S11772 Client: Invacare Deutschland GmbH Wheelchair: M41 Occupant: 50th%ile (75 kg)	RESULTS
5.2.1 During the Test	
a) Horizontal ATD and wheelchair excursion limits as per limits shown in Table 3:-	
Was the horizontal movement of the test wheelchair P- Point (X_{wc}) less than 200 mm (±5 mm)	PASS 128 mm
Was the horizontal movement of the dummy knee (X knee) less than 375 mm (±5 mm)	PASS 360 mm
Was the horizontal movement of the dummy head (X head) less than 650 mm (±5 mm)	PASS 537 mm
b) Was the ratio X_{knee} / X_{wc} >1.1:1	PASS 2.81 :1
c) Not Conducted	
Did the batteries of powered wheelchairs, or their surrogate parts:-	
i) move outside of the wheelchair footprint	PASS
ii) move into the wheelchair user's space	PASS
5.2.1 Post Test	
a) Did the wheelchair remain upright on the test platform Did the ATD remain in a seated posture in the test wheelchair with a torso angle less than 45°	PASS
b) Did the wheelchair securement points show visible signs of material failure	PASS
c) Did any components of a mass greater than 100g become detached from the wheelchair	PASS
d) Did any occupant contactable components fragment or separate with an edge of less than 2mm	PASS
e) Did any primary load carrying components of the wheelchair show any visible signs of failure	PASS
f) Did any 'tilt in space' locking mechanisms show signs of failure	PASS
g) Was the ATD released from the wheelchair without the use of tools	PASS
h) Was the wheelchair released from the restraint system without the use of tools	PASS
i) Was the average decrease of H-Point height relative to the wheelchair platform less than 20% of the pre-test height.	PASS
Has the wheelchair satisfied the Dynamic Test requirements of ISO/FDIS 7176/19 of 7th July 2008	PASS