

Test Report



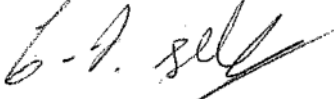
Customer Alu Rehab

Test Item Netti III HD Dynamic

Test ISO 7176-19:2008 as amended by
EN 12183:2014

Millbrook Report No. 18/0471

Millbrook Test No. S15329

Author:  C. Sells
Engineer

Approved:  N. Targett
Manager: Safety Test
Engineering

Date: 19th March 2018

This test report shall not be reproduced, except in full, without written approval of Millbrook

Distribution

Organisation	Recipient	Format	Qty
Alu Rehab AS, Bedriftsveien 23, 4353Klepp stasjon Norway	Oddvar Kverme	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	19 th March 2018	C. Sells	N. Targett	All

Contents

Section	Page Nos.
Distribution.....	2
Report Revision History	2
Contents	3
Appendices	3
Test Facility and Date	3
Test Items	4
Photographic.....	4
Disclaimers	4

Appendices

Graphical Results	Appendix A Transducer Calibration Report
Pre and Post Test Photographs	Appendix B
Test Results Summary	Appendix C
High Speed Digital Films	See "Films" directory on data media
Still Photography	See "Stills" directory on data media

Test Facility and Date

The test, number S15329, was performed on 8th March 2018 at the Sled facility at Millbrook Proving Ground Ltd.

Address: Millbrook Proving Ground Ltd
Millbrook
Bedford
MK45 2JQ
England

Contact: Catherine Sells
Telephone: 01525 408 465
Fax: 01525 408 203
Email: catherine.sells@millbrook.co.uk

Test Results Summary

Test No: S15329 Test Type ISO 7176-19:2008 as amended by EN12183:2014 Manufacturer Alu Rehab. WC Model: Netti III HD Dynamic Mass: 41.55kg Seat Rail Angle: 14.5° Seat Back Angle: 15° Head Restraint: Fitted Occupant: Hybrid II 50 th Percentile (75kg) Front Tie Downs: Unwin OF01 Rear Tie Downs: Unwin OR02 Occupant Restraint: MPG SORv1	RESULTS
5.1 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_{ss}) less than 200 mm. (± 5 mm)	Pass 37mm
Was the horizontal movement of the dummy Knee (X_{knee}) less than 375 mm. (± 5 mm)	Pass 216mm
Was the forward horizontal movement of the Dummy Head (X_{headF}) less than 650 mm. (± 5 mm)	Pass 395mm
Was the rearwards horizontal movement of the Dummy Head (X_{headR}) greater than -450 mm. (± 5 mm)	Pass -386mm
b) Was the ratio $X_{knee}/X_{ss} > 1.1:1$	Pass 5.8:1
c) Did the batteries of powered wheelchairs, or their surrogate parts:-	
I. move outside of the wheelchair footprint	N/A
II. move into the wheelchair user's space	N/A
5.2 Post Test	
a) Did the wheelchair remain upright on the test platform and did the ATD remain in a seated posture in the test wheelchair with a torso angle $> 45^\circ$	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 <1%
j) Did the wheelchair and its components cause partial or complete failure of the webbing or any of the WTORS assemblies	Pass
The Netti III HD wheelchair satisfied the dynamic test requirements of ISO 7176-19:2008 as amended by EN12183:2014	