



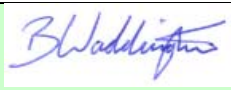
**TEST REPORT: LARGE BUS
CONSTRUCTION**
Directive 2001/85/EC
Regulation 107.02 up to and including
Supplement 5 ECE Regulation 107.04

Paragraph	Requirement	Complies (Yes, No, N/A)
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REPORT/JOB NUMBER: VSN255138

TEST DETAILS	
Location of Test	VCA Midland Centre Watling Street Nuneaton Warwickshire United Kingdom CV10 0UA
Date of Test	15 May 2012
VCA Representative(s)	Brent Waddington
Manufacturer's Representative(s)	Stuart Taylor
Reason for Test	Test report only to ensure compliance with Paragraph 7.6.10.9 of EC Directive 2001/85/EEC or 7.6.10.9 of Regulation 107.02 / 107.03

MANUFACTURER DETAILS	
Manufacturer's Name	W S H Taylor Engineering
Manufacturer's Address	Unit 36-39 Radway Industrial Park Radway Green Crewe Cheshire United Kingdom CW2 5PR
Model Type & description	DL600S Single Manual step
Category	Separate Technical Unit

CONCLUSION	
The above mentioned STU was tested in accordance with Paragraph 7.6.10.8 and 7.6.10.9 of Directive 2001/85/EC and ECE Regulation 107.04 and was found to comply in all respects	
Signature: 	
Name:	Brent Waddington
Position:	Type Approval Engineer
Date:	15 MAY 2012

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TEST SPECIFICATION AND WORST CASE RATIONALE

DL600S Single Manual step mounted as a Separate Technical Unit to a test rig and tested as worst case. The test involved loading the step via a calibrated load cell with a 100mm diameter disc at the centre of the extended step with a force of 136 kg and measuring the deflection.
Additional models covered by Test: DL500S, DL400S
Reason: All identical in construction to DL600S tested but less wide hence will be stiffer.
Additional Models covered by Test: DM600S, DM500S and DM400S
Reason: Have longer riser lengths but less outward overhang, generating less bending moment at the fulcrum point. Also have slightly longer length from the fulcrum point to the hook point hence generating less force and stress at the hook point. Narrower width models will be stiffer.

Tests required (if more than one is applicable)

- **Deflection test**

MANUFACTURER'S DOCUMENTATION

Manufacturer's documentation is complete and reflects the agreed specification for the component tested and covers all variants and versions agreed in the worst case rationale

Yes

FACILITY AND EQUIPMENT CHECKS

- | | | | | |
|---|-----------------------------------------------------------------------------|----------------------------------|-------------------------------|-----|
| 1 | Generic Risk assessment followed | <i>Insert RA identifier here</i> | <input type="text" value=""/> | Yes |
| | OR | | | |
| | Specific Risk assessment completed and stored in electronic job folder | | | No |
| 2 | Facilities and test equipment are appropriate | | | Yes |
| | Brief description of test equipment: | | | |
| 3 | Calibration certificates checked and valid, recorded in the following table | | | Yes |

<u>Equipment</u>	<u>Serial No.</u>	<u>Calibration data</u>
Load Cell/ Data reader	165096/1075184	19/10/2011
Measure		Confirmed zero at start

TEST REQUIREMENTS

Regulation	Directive
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Paragraph	Requirement	Complies (Yes, No, N/A)
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*Ann 3
7.6.10*

Ann I 7.6.10

**TECHNICAL REQUIREMENTS FOR
RETRACTABLE STEPS**

<i>Ann 3 7.6.10.8</i>	<i>Ann I 7.6.10.8</i>	The corners of retractable steps facing forwards or rearwards shall be rounded to a radius of not less than 5mm; the edges shall be rounded to a radius of not less than 2.5mm	Yes
<i>Ann 3 7.6.10.9</i>	<i>Ann I 7.6.10.9</i>	When the passenger door is open, the retractable step shall be securely held in the extended position. When a mass of 136 kg is placed in the centre of a single step or a mass of 272 kg is placed in the centre of a double step the deflection at any point on the step, measured relative to the body of vehicle, shall not exceed 10 mm.	Yes

Test Results:

Step model	Load (kg)	Deflection (mm)
DL600S	136.8	7.7



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Photographs of test set-up:

DL600S

