



**TEST REPORT: LARGE BUS  
CONSTRUCTION**  
Directive 2001/85/EC  
Regulation 107.02 up to and including  
Supplement 5 ECE Regulation 107.03

Paragraph	Requirement	Complies (Yes, No, N/A)
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<b>REPORT/JOB NUMBER:</b>	<b>VSM245840</b>
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<b>TEST DETAILS</b>	
Location of Test	VCA Midland Centre, Watling Street, Nuneaton, CV10 OUA, United Kingdom
Date of Test	29 November 2011
VCA Representative(s)	Richard Pegg
Manufacturer's Representative(s)	Stuart Taylor
Reason for Test	Test report 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

<b>MANUFACTURER DETAILS</b>	
Manufacturer's Name	WSH Taylor Engineering T/A Stayco
Manufacturer's Address	Unit 36-39 Radway Industrial Park Radway Green, Crewe Cheshire CW2 5PR, United Kingdom
Model Type & description	Z "Frame type step"
Category	Separate Technical Unit

<b>CONCLUSION</b>	
The above mentioned STU was tested in accordance with Paragraph 7.6.10.9 of Directive 2001/85/EC and ECE Regulation 107.03 and was found to comply in all respects	
Signature:	
Name:	Richard Pegg
Position:	Type Approval Engineer
Date:	29 November 2011

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**TEST SPECIFICATION AND WORST CASE RATIONALE**

ZM900 Double Manual step Mounted as a separate Technical unit to a test rig by means of four M6 fastenings at the front of the step and two M8 fasteners to the rear of the step.

The test involved pressing the step via a calibrated load cell with a 100mm diameter disc at the centre of the extended step at a force of 272 kgs and measuring the deflection

Test 1: ZM900

Additional models this test will cover: ZE900 and ZM900I and ZE900I (the suffix is the letter I not number one)

Reasons:

All have the same tread width and construction as the ZM900. The ZE900 has slightly more metal area on the R/H side plate and the ZM900I and the ZE900I on both side plates. This will make them 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 worse case rationale

Yes

**FACILITY AND EQUIPMENT CHECKS**

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

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



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**TEST REQUIREMENTS**

Regulation	Directive	
<i>Ann 3 7.6.10</i>	<i>Ann I 7.6.10</i>	<b>TECHNICAL REQUIREMENTS FOR RETRACTABLE STEPS</b>

<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.	
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Results: 8.3 mm deflection noted at 272 kgs load

Photographs:



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