Test Report

Modum A/S Linkøpingvej 8 Dk-4900 Nakskov Denmark

At.: Michael Rasmussen

File no m1471-264681 Date 2006-07-25 Page 1 of 1 Number of enclosures 2 ADK/JET

Testing of guardrail system for commercial vehicles

For testing of one type guardrail system for commercial vehicles, performed on July 25, 2006, at the client.

Description

The quardrail system consisted of a U-shaped aluminium section at the bottom and at the top (handrail), interconnected with 5 posts made of square hollow aluminium sections. The handrail and posts folded into the bottom section by pneumatic operation. The quardrail system was connected to an aluminium gangway.

Testing

The system was loaded horizontally at the handrail and perpendicular to the handrail at the second post from one end, as shown in photo in enclosure 1. A fork lift truck was used as counter weight.

Results

The results are stated in table below and in enclosure 2.

| Load in kN | Load in kg | Distance | Deflection |
|------------|------------|----------|--------------|
| 0 | 0 | 228 | 0 |
| 0,10 | 10,2 | 243 | 15 |
| 0,20 | 20,4 | 273 | 45 |
| 0,30 | 30,6 | 307 | 79 |
| 0,40 | 40,8 | 357 | 129 |
| 0,50 | 51,0 | 390 | 162 |
| 0,60 | 61,2 | 425 | 197 |
| 0,70 | 71,4 | 463 | 235 |
| 0,80 | 81,5 | 497 | 269 |
| 0,00 | 0,0 | 245 | 17 permanent |

Date of testing: 2006-07-25.

Test equipment: Force HBM RSM-2T, 20 kN load cell, No 144930A and HBM MVD 2555, measuring amplifier.

Summary

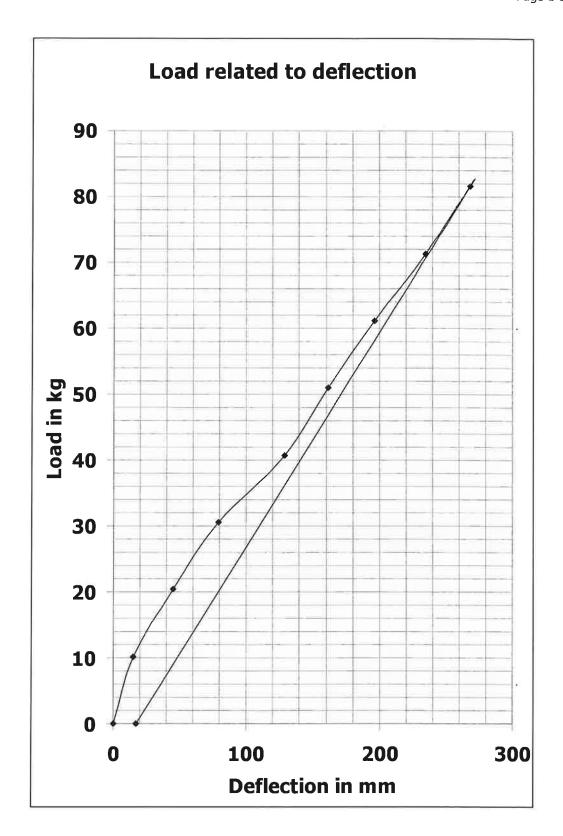
The guardrail system sustained minimum 80 kg of loading without permanent deformation. The measured permanent setting of 17 mm occurred in the flanges of the gangway. After the loading the system was able to fold and unfold.

FORCE Technology Materials and Product Testing

Anders Klingenberg Project Manager

Extracts from the test report may only be reproduced with a written permission from the FORCE The "General Conditions" on the reverse page are an integral part of our services. Technology. The test results relate only to the items tested.





Enclosure 1
File no m1471-264681
Date 2006-07-25
Page 1 of 1

