Van Guard

Sled Test Report

Roof Rack Frame (Maxrack)
Ladder Clamps
Pipe Carrier

A257I03

Test Engineers	C Walker / A Thompson
Quality review	S Ahmed

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Van Guard Sled Test

Contents

SUMMARY

Impact sled tests were performed on Van Guard roof accessories at TRL's Impact Sled Facility (ISF) on the 17th February 2011. The tests were undertaken according to the frontal impact deceleration pulse stipulated in ECE Regulation 17.

Customer	Van Guard
Test Facility	Impact Sled Facility
Test Numbers	A257I01
Test Date	17/02/2011
TRL Test Engineers	Chris Walker / Alex Thompson
Report Author	Alex Thompson

A257I03

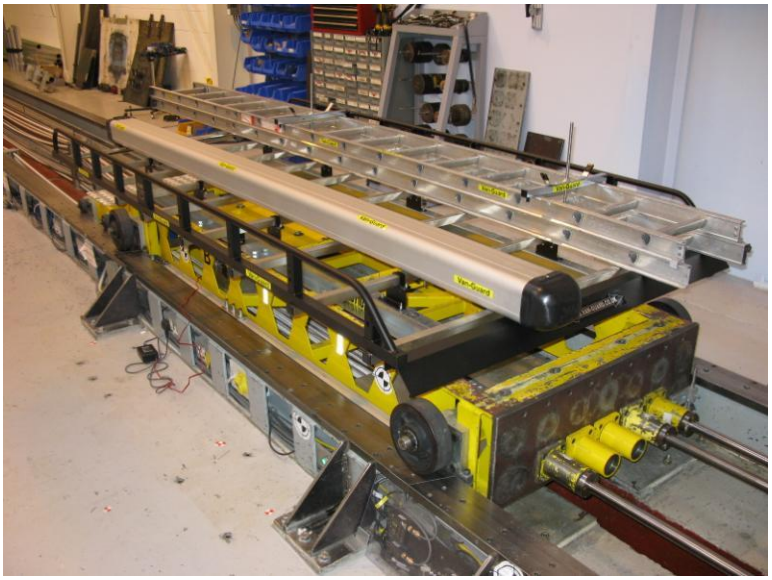
Test Details

Test Procedure	ECE Regulation 17 frontal impact deceleration pulse
Test Description	Roof rack with attached pipe tube and ladder
Impact Speed	49.14 km/h
Peak Deceleration	23.78 g

Test Setup

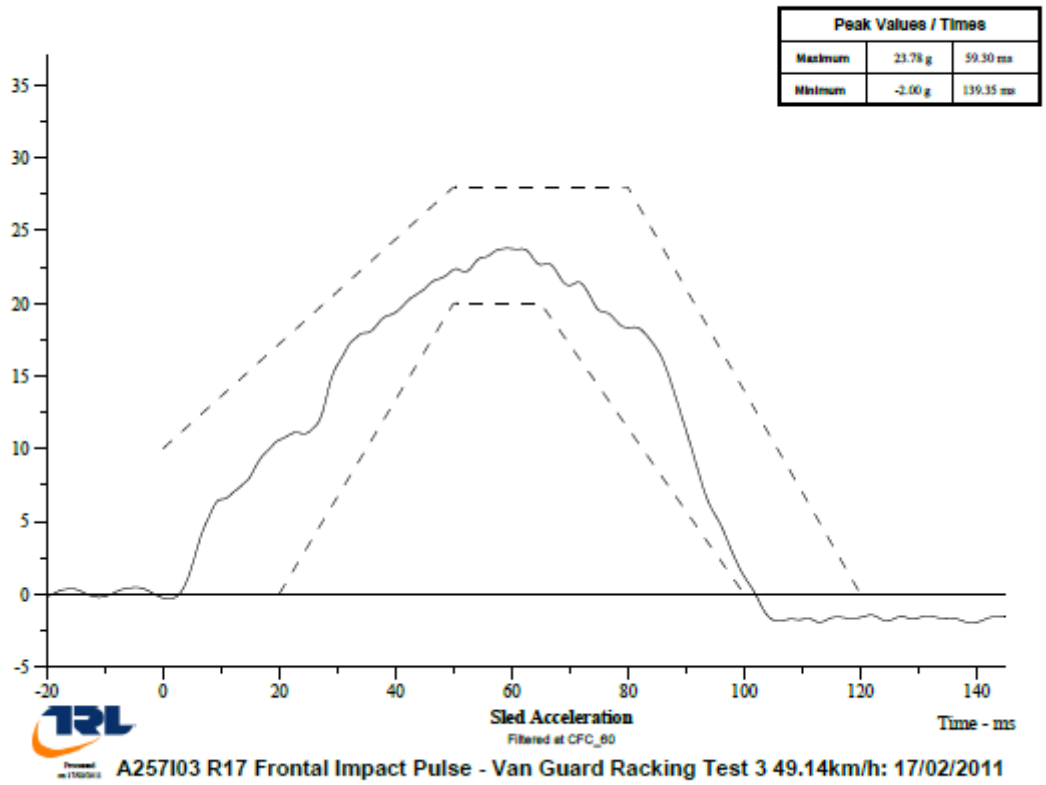
A set of van roof accessories were attached to the sled by Van Guard. These consisted of the following:

- Roof rack frame with associated brackets, attached to the sled at 4 mounting positions on either side
- One pipe tube containing 60 copper pipes attached to the roof rack frame in two places
- One ladder attached to the roof rack frame using two ladder clamps



Deceleration Pulse

The deceleration pulse for the test was within the corridors specified in ECE Regulation 17.



Test Observations

The following observations were made during the test:

- The roof rack frame withstood the impact and showed no obvious signs of deformation.
- The ladder displaced forward slightly during the impact but was restrained on the roof bars by the ladder clamps.
- The pipe tube withstood the impact and remained securely attached to the roof bars during the test. There was little forward displacement observed of the tube relative to the roof bars and no pipes came out of the tube during the impact.