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**Report No. T121439, Issue 2  
December 5, 2011**

**S U B J E C T**

**COMPRESSION TESTING OF A BUS PLATFORM**

**Purchase Order:  
Samples Received:  
Report Author:**

**C.C.  
November 21, 2011  
S. Jeuch  
Metallurgical Engineer**

## **I. Background**

Heavy Duty Ramps requested Exova to conduct compression testing of one bus platform. The purpose of this test was to determine the maximum load capacity of the bus platform. Test was performed on November 22<sup>nd</sup> 2011.

## **II. Test Procedure**

The compression testing was performed on our 400kip frame. This system is equipped with an Admet controller and a computer interface for test control. The load cell was calibrated on June 2011 and will require calibration on December 2011. The displacement module was calibrated on June 2011 and will require calibration on June 2012.

The bus platform was compressed with an aluminum plate (length: 20", width: 6", thickness: 1") provided by Heavy Duty Ramps (see Photographs 1-4 for test set-up). The load was applied on the marked area indicated by Heavy Duty Ramps (see Photograph 3). The test area has been marked at mid-distance from the extremity and the middle of the platform.

The test was performed under displacement control at a rate of 0.25 in/min.

After the maximum load was reached the test was stopped and the bus platform examined for damage.

## **III. Tests results**

The maximum load recorded was 112,700 lbf (see Figure 1).

Deformations of the lateral support beams were observed (see Photograph 5)

Sincerely,  
Exova

  
**Sebastien Jeuch**  
Metallurgical Engineer

This document replaces Issue 1 of the same number, which has been withdrawn. It has been modified at client request to present the data in a formal report which include pictures and chart.



**Photograph 1:** Compression test setup: Bus platform in test position

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Information regarding estimate of measurement uncertainty (where appropriate) available upon request.



**Photograph 2:** Compression test setup: Bus platform under the 400kip frame

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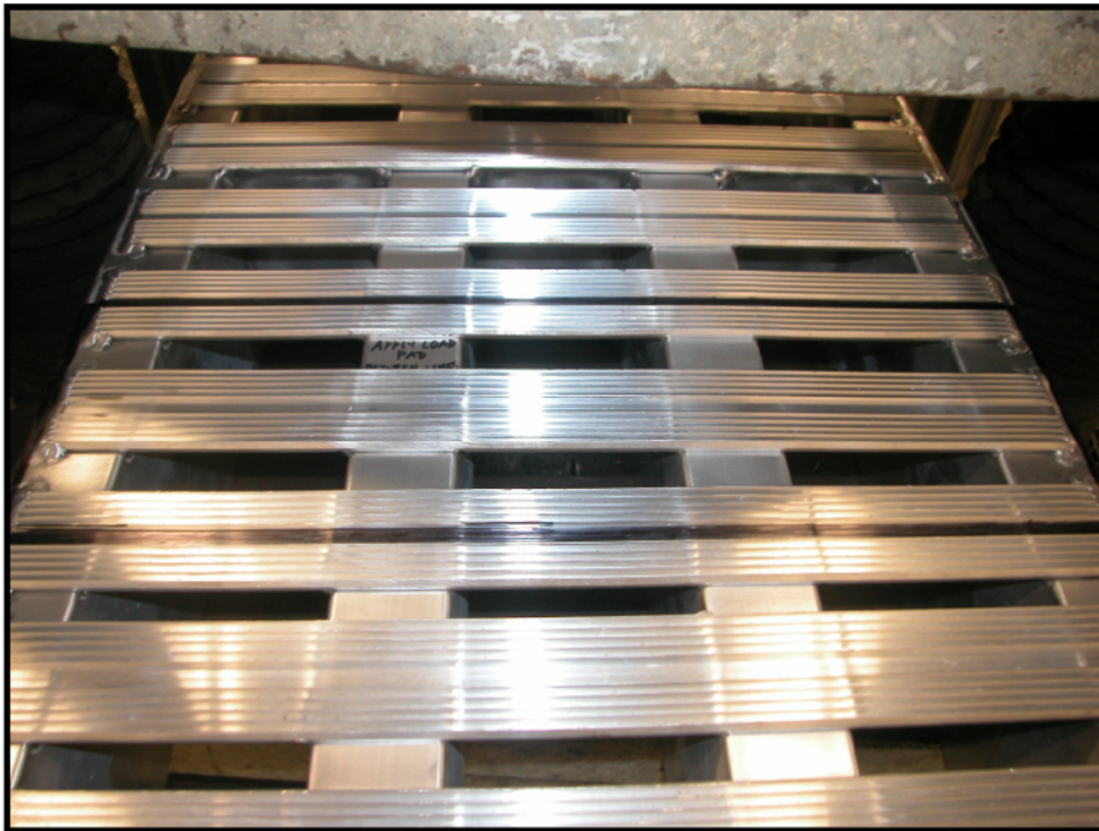
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**Photograph 3:** Compression test setup: Area marked by Heavy Duty Ramps (Black lines) for compression testing



**Photograph 4:** Compression test setup: Compressive aluminum plate

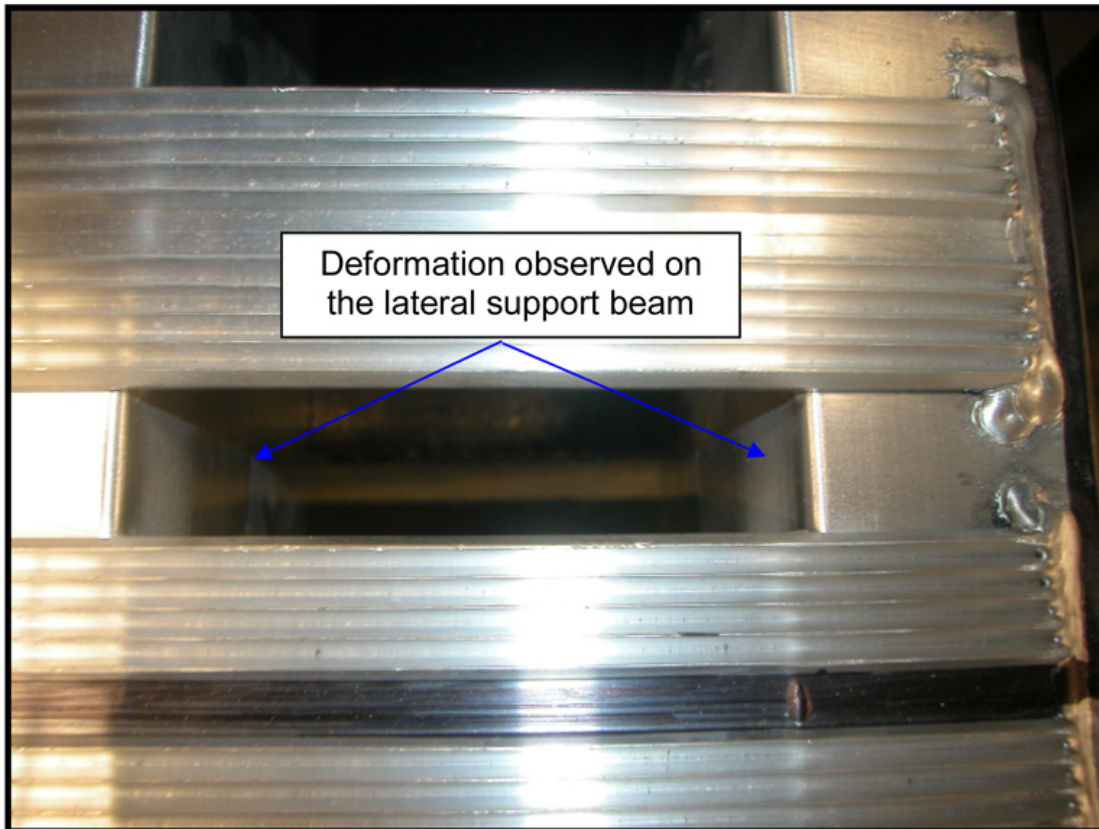
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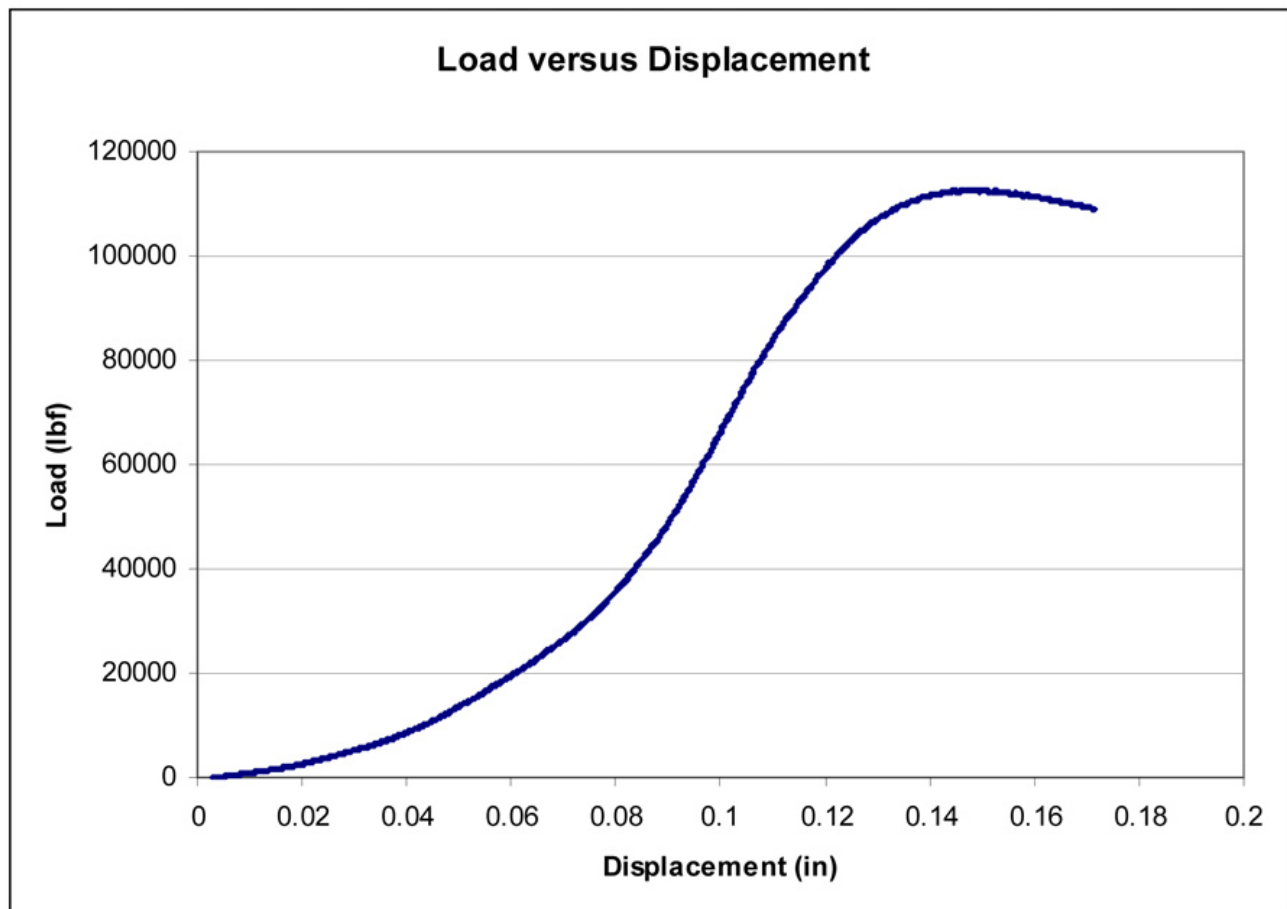
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**Photograph 5:** Deformation of the lateral support beams after testing





**Figure 1:** Bus platform: Load versus displacement curve