



Rail Mechanical Factual Report

Midland, Texas

HWY-13-MH-003

(4 pages)

**NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF HIGHWAY SAFETY
WASHINGTON, D.C.**

**RAIL MECHANICAL FACTORS GROUP CHAIRMAN'S
FACTUAL REPORT**

A. ACCIDENT

Location: At the intersection of South Garfield Street and the Union Pacific Railroad (UPRR), Mile Post 554.65, DOT grade crossing inventory #796-331L, Midland, Midland County, Texas

Vehicle #1: 2006 Peterbilt truck-tractor in combination with a 2005 Transcraft Eagle Drop Flatbed Semitrailer

Operator #1: Smith Industries of Midland, Texas

Vehicle #2: Union Pacific Freight Train ZLCAI-14, consisting of 4 locomotives and 84 loaded cars

Operator #2: Union Pacific Railroad (UPRR)

Vehicle #3: 2008 Ford Crown Victoria Police Interceptor

Operator #3: Midland County Sheriff's Office

Date: November 15, 2012

Time: Approximately 4:35 p.m. CST

NTSB #: **HWY-13-MH-003**

B. MECHANICAL GROUP

David E. Watson

National Transportation Safety Board

1515 W. 190th Street, Suite 555

Gardena, CA 90248

S. D. Stokes

Federal Railroad Administration

4100 International Plaza

Ft. Worth, Texas 76109

C. ACCIDENT SUMMARY

For a summary of the accident, refer to the *Accident Summary* report in the docket for this investigation.

D. TRAIN CONSIST

Union Pacific Railroad (UP) freight train ZLCAI-14 consisted of four locomotive units and 84 cars loaded with containers. The train was 7,247 feet long. All the locomotive units were configured for multiple unit (MU) operation and were being controlled from the lead locomotive unit. Three locomotive units were on the front of the train. The fourth locomotive unit was on the rear of the train and was designated as a distributed power unit (DPU).

E. DERAILED EQUIPMENT

None of the cars or locomotive units derailed as a result of the accident.

F. PRE-ACCIDENT INSPECTIONS

ZLCAI-14 originated in Los Angeles, California on November 14, 2012. It passed an initial terminal mechanical and air brake inspection. No defects were discovered during the inspection and the UP inspector reported one (1) pound per square inch (psi) leakage from the brake pipe.¹ The train departed en route to Atlanta, Georgia.

The train arrived at El Paso, Texas at 7:15 a.m. November 15, 2012 and was given an extended haul inspection. No defects were discovered during the inspection and the air brake test revealed 1 ½ psi brake pipe leakage.

The air brake slip found in the control compartment of the lead locomotive unit after the accident matched the electronic record maintained by the UP.

G. POST-ACCIDENT INSPECTION

The air brake system was tested at the original point of rest after the accident. FRA and qualified UP personnel performed the test. During the initial brake pipe reduction six brake cylinder pistons failed to set; however, during the recharge and set all the pistons applied and remained applied. Leakage was measured at 1 psi.

¹Five psi is allowed under 49 CFR 233.205.

Brake cylinder piston travel was measured on each car and locomotive unit at its original point of rest. Every locomotive brake cylinder piston was within standard. The entire car borne brake cylinder pistons were within their respective standards except one brake cylinder (DTTX 724082) which had brake cylinder travel shorter than allowable.

H. DAMAGES

The lead locomotive unit, UP 7877, sustained damage to the right front; the end sheet was broken in two places, the step was displaced aft, in addition, the hand rail, uncoupling lever and plow were bent.

XX