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DEFECTS INVESTIGATION  
RECALL MGMT DIV.

October 2, 2007

George Person (NVS-215)  
Chief of Recall Management  
National Highway Traffic Safety Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue  
Washington DC 20590

07V-470  
(2 Pages)

Vehicle Recall 07V-\_\_ Pitman Arm

Dear Mr. Person:

Pierce has decided that a defect exists in pitman arms used in certain Pierce custom chassis. We therefore furnish notification of a defect to the National Highway Traffic Safety Administration, in accordance with 49 CFR Part 573, Defect and Noncompliance Reports.

Manufacturer's Identification Code: 39-0139830

**1. Name of Manufacturer and Corporate contact:**

Pierce Manufacturing Inc.  
Roger Lackore, Director of Research and Development  
Phone: 920 832-3249  
FAX: 920 832-3092  
E-Mail: rlackore@piercemfg.com

**2. Identification of Vehicle Classification:**

Make:	Pierce
Model Years:	2001 - 2006
Model:	Custom chassis with independent front suspension
Mfg. Date Beginning:	12/20/01
Mfg. Date Ending:	12/31/06

**3. Number of Potentially Affected Vehicles:** 2604

**4. Estimated Percentage of Vehicles Containing the Defect or Noncompliance:** 100%

**5. Description of the defect or non-compliance:** A Pitman arm might fracture under severe load caused by three loading conditions: In all cases, the front axle must be turned full left or

right while (1) simultaneously backing up and braking hard or (2) driving one wheel over or against a curb or (3) steering the front axle full left or right when the vehicle is stationary with the service brake applied. These are all low or no-speed events.

#### **6. Chronology of Principal Events:**

November 2004: Report of a broken Pitman arm the day following an event where the vehicle made a hard strike against a curb. Indications were that the curb strike caused the failure. Curb strike testing was conducted to intentionally break the suspension, but was unable to duplicate the failure or break the Pitman arm.

October 2006 - February 2007: Four additional reports of broken Pitman arm failures were investigated. In three cases operators acknowledged the vehicles had significantly struck curbs or barriers. In the other cases, metallurgy analysis showed evidence of one or more substantial overload events.

January 2007: New higher strength Pitman arms incorporated into production of independent front suspensions.

March, 2007 – A report was received of a broken pitman arm where operator said the unit had never made a significant strike against a curb. Metallurgy analysis confirmed the report.

April 2007: Additional testing revealed certain low-speed vehicle maneuvers that can produce higher than expected stress in original Pitman arm components.

September 2007: Complete analysis of the data and decide to initiate a safety recall.

**7. Test Results or Data on which the Noncompliance was Determined:** Strain gauge testing that revealed certain low-speed maneuvers can overstress original pitman arm design.

**8. Corrective Action:** Replace the original pitman arms with pitman arms made of higher strength material.

**9. Representative Notices:** Will be sent when complete.

Sincerely,  
Pierce Manufacturing, Inc



Roger Lackore, P.E.  
Director of Research and Development