



**PIERCE MANUFACTURING, INC.**

AN OSHKOSH TRUCK CORPORATION COMPANY · ISO 9001 CERTIFIED

2600 AMERICAN DRIVE  
POST OFFICE BOX 2017  
APPLETON, WISCONSIN 54912-2017  
920-832-3000 · FAX 920-832-3208

RECEIVED

2009 APR 1 P 2:34

DEFECTS  
SECTION



March 27, 2009

09V-105  
(13 Pages)

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

Vehicle Recall **09V-xxx** Velocity/Impel Battery Box

Dear Mr. Person:

Pierce has determined that a defect exists in the battery box location used in certain Pierce Velocity and Impel 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:         | 2007 - 2008      |
| Model:               | Velocity / Impel |
| Mfg. Date Beginning: | 04/11/2007       |
| Mfg. Date Ending:    | 02/14/2008       |

**3. Number of Potentially Affected Vehicles: 167**

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

**5. Description of the defect or non-compliance:** A battery box is positioned on both sides of the chassis frame directly under the cab. If manufacturing tolerances stack up all to one

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direction, cab interference may occur with the positive battery post and the aluminum cab floor substructure. If metal-to-metal contact were to occur, an electrical arc, between the cab and battery, will result.

**6. Chronology of Principal Events:**

October 2007: Velocity battery box lowered 0.75 inch to provide increased clearance between cab floor substructure and batteries.

April 2008: Denver, Colorado Fire Department reported battery post-to-cab interference on four Pierce Velocity fire trucks. The cab substructure had worn through the positive battery post protective cap. The fire department noted all four Denver trucks showed arcing between the cab and the battery post.

February 2009: Field upgrade initiated to reposition the battery post farther away from the cab structure.

**7. Test Results or Data on which the Noncompliance was Determined:** Denver, Colorado Fire Department notification of arcing between the cab and battery post.

**8. Corrective Action:** Install a 0.75 inch spacer between the battery tray and the forward wall of the battery box. The spacer moves the battery tray rearward and away from potential battery post contact with the cab.

**9. Representative Notices:** Attached with this report.

Sincerely,  
Pierce Manufacturing, Inc



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



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TO: «CUST»  
FROM: Doug Shadick – Customer Service: Field Upgrades and Recalls  
DATE: April 2009  
SUBJECT: Recall Notice **09V-xxx Velocity/Impel Battery Box**  
Pierce job#: «Product\_\_Number»  
VIN: «VIN»

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This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Pierce Manufacturing has decided that a defect which relates to motor vehicle safety exists in the battery box location used in certain Pierce Velocity and Impel custom chassis.

A battery box is positioned on both sides of the Velocity/Impel chassis frame directly under the cab. Cab interference may occur with the positive battery post and the aluminum cab floor substructure. If metal-to-metal contact were to happen, an electrical arc, between the cab and battery, could occur.

The battery post interference may occur during normal vehicle driving operations. As the truck bounces over bumps and chuckholes, the truck cab may contact the positive battery post. Eventually the battery post protective cap may wear away and contact with the aluminum cab could occur.

The vehicle owner should inspect the positive battery posts to make sure the protective caps have not worn away. If contact with the cab has occurred, replace the battery post protective caps. Contact your Pierce dealer immediately for the remedy kit.

Remedy for this defect started in February 2009. We expect the time required to perform the remedy should not exceed two (2) hours, once the work has begun. This remedy will be completed without charge.

If you have not received communication about this potential defect, contact your dealer as soon as possible to schedule an appointment. Take this Owner Notification Letter with you at the time of your appointment and give it to your dealer.

Federal law requires that any vehicle lessor receiving this recall notice must forward a copy of this notice to the lessee within ten days

We regret any inconvenience that this action may cause you. However, we are concerned about your safety. If you have questions regarding this matter, please contact your Pierce dealer, or call Pierce Customer Service toll-free at 1-888 974-3723

If we fail or are unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to:

The Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue, SE., Washington, DC 20590; or call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY: 1-800-424-9153); or go to <http://www.safercar.gov>.

Sincerely,  
Pierce Manufacturing

Doug Shadick  
Customer Service: Field Upgrades and Recalls



## Reimbursement Notification

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TO: «CUST»  
FROM: Doug Shadick – Customer Service: Field Upgrades and Recalls  
DATE: April 2009  
SUBJECT: Recall Notice **09V-xxx Velocity/Impel Battery Box**  
Pierce job#: «Product\_\_Number»  
VIN: «VIN»

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Pierce Manufacturing has a program for reimbursing costs related to this recall campaign for repairs made before this campaign was initiated.

If you paid for repairs to remedy this problem between 04/11/2007 and 04/15/2009, you may be eligible for reimbursement subject to these exclusions:

- The remedy, repair or replacement was already covered by the original or extended warranty.
- The remedy, repair or replacement did not address the problem covered by this recall
- The remedy, repair or replacement was not reasonably necessary to correct the defect.

The pre-notification remedy, repair or replacement need not be identical to the remedy provided by this recall campaign.

To obtain reimbursement consideration you must complete the enclosed Pre-Notification Reimbursement form and send it along with a copy of the repair receipt to:

Pre-Notification Reimbursement  
Customer Service Department  
Pierce Manufacturing  
2600 American Drive  
Appleton, WI 54912-2017

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TO: «DEALER»  
FROM: Doug Shadick – Customer Service: Field Upgrades and Recalls  
DATE: April 2009  
SUBJECT: Recall Notice 09v-xxx Velocity/Impel battery Box

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## VEHICLE SAFETY DEALER NOTIFICATION - IMPORTANT

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle which is subject to a recall campaign of this type must be adequately repaired within a reasonable time after the owner has tendered it for repair. Failure to repair within sixty (60) days after tender of a vehicle is prima facie evidence of failure to repair within a reasonable time.

If the condition is not adequately repaired within a reasonable time, the owner may be entitled to an identical or reasonable equivalent vehicle at no charge or to a refund of the purchase price less a reasonable allowance for depreciation.

To avoid having to provide these burdensome solutions, every effort must be made to promptly schedule an appointment with each owner and to repair their vehicle as soon as possible. As you will see in reading the attached copy of the letter that is being sent to owners, the owners are being instructed to contact Pierce customer service if their dealer does not remedy the condition within three (3) days of the mutually agreed upon service date. If the condition is not remedied within a reasonable time, they are instructed on how to contact the National Highway Traffic Safety Administration.

### DEFECT INVOLVED

Pierce Manufacturing Inc. has decided that a defect, which relates to motor vehicle safety, exists in certain Pierce Velocity/Impel chassis. The vehicles involved were built between April 11, 2007 and February 14, 2008.

A battery box is positioned on both sides of the Velocity/Impel chassis frame directly under the cab. Cab interference may occur with the positive battery post and the aluminum cab floor substructure. If metal-to-metal contact were to occur, an electrical arc, between the cab and battery, could occur.

The battery post interference may occur during normal vehicle driving operations. As the truck bounces over bumps and chuckholes, the truck cab may contact the positive battery post. Eventually the battery post protective cap may wear away and contact with the aluminum cab could occur.

It is the dealer's responsibility to contact the fire departments on the attached list and to support service for this remedy.

### VEHICLES INVOLVED

Involved vehicles have been identified by Pierce job numbers and are listed on the attached report. Computer listings contain the complete job number, owner name and address data. Owner name and address data furnished will enable dealers to follow up with owners involved in this campaign.

### REMEDY SERVICE INSTRUCTIONS

Service instructions are included with this notification.

Sincerely,

A handwritten signature in black ink, appearing to read "Doug Shadick".

Doug Shadick  
Customer Service: Field Upgrades and Recalls

# Velocity/Impel Battery Box Upgrade



1

16 September 2008

## Background

The original Velocity/Impel battery box design placed the positive battery post directly under a cab substructure support. The cab substructure could contact the positive battery post cap. Eventually the cab substructure could wear through the plastic cap and cause an electrical short circuit.

The battery box has since been lowered to provide proper clearance. For the vehicles in the field an upgrade kit will be installed. A battery spacer will permanently locate the batteries away from the cab substructure support. In addition the foil backed cab insulation will be removed to eliminate any potential electrical conductivity.

If you have any questions or concerns with this upgrade, contact Pierce Customer Service at 1-888-974-3723.



2

16 September 2008

# Parts and Tools



## Parts List

| <u>Part No.</u> | <u>Qty</u> | <u>Description</u>       |
|-----------------|------------|--------------------------|
| 1913369         | 1          | Battery Box Upgrade Kit  |
| Includes:       |            |                          |
| 1871652         | 4          | Hold down rod, battery   |
| 1886532         | 2          | Spacer, battery box tray |
| 82-2081-0075    | 6          | Bolt, 1/4-20 x .75       |
| 82-0200-0025    | 6          | Nut, 1/4-20, serrated    |
| 82-3029-002     | 4          | Nut, Nylok, 5/16-18      |
| 82-1032-0031    | 4          | Washer, flat, 5/16       |



### Setup Tools Required

|                           |  |
|---------------------------|--|
| <b>Safety Glasses</b>     | Approved Eye Protection Device                 |
| <b>Safety Shoes</b>       | Approved Toe Protection                        |
| <b>Battery Light</b>      | Suitable lighting to safely brighten work area |
| <b>Wheel Chocks</b>       | Block wheels to prevent truck from moving      |
| <b>"DO NOT START" TAG</b> | Attach to truck ignition switch                |



### Work Tools Required

Electrical tape  
Straight edge, 18 inch  
1/2" deep hex socket, 3/8" drive  
3/8" drive ratchet wrench  
Side cutter  
9/32" drill bit  
Drill  
7/16", 1/2" hex socket, 3/8" drive  
Combination wrench – 7/16", 1/2", 9/16"  
Utility knife  
Metal router  
Marking pen  
Tape measure  
Tie straps – medium  
Black spray paint



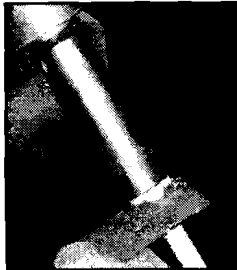
# Battery Spacer Installation



7

16 September 2008

## Remove battery cables



Carefully tilt cab and set stay arm in place.

Remove nuts and washers from battery hold down rods.

Disconnect positive battery cables. Tape off bare cable ends with electrical tape.

Disconnect negative battery cables.

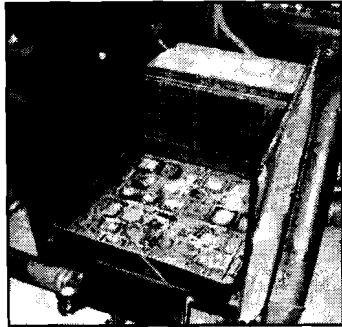
Temporarily lay cables and battery support angle on top of transmission.



8

16 September 2008

### Install spacer

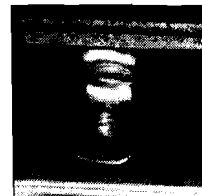
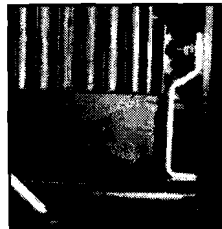


Remove batteries and battery tray.

Install spacer on **front** side of battery box.

Using spacer as template, drill three 9/32" dia. holes through front side of battery box. Be careful to clear discharge and front suction pipes.

Install three 1/4" bolts and serrated nuts to hold spacer in position. Place bolt head on outside of battery box. Tighten to 10-11 ft lb.



9

16 September 2008

### Battery box drain hole



Place battery tray in battery box.

Mark extra clearance needed for battery tray drain hole.

Enlarge drain hole for battery tray clearance.

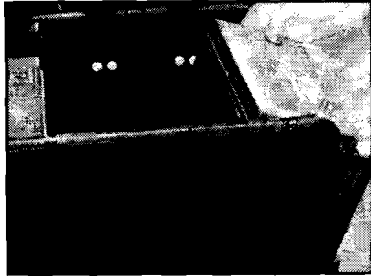
Paint bare metal to prevent corrosion.



10

16 September 2008

### Re-install batteries



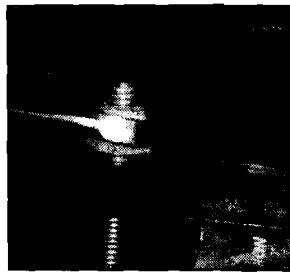
Install **new** battery hold down rods. Reinstall all batteries.

Position battery hold down angle over hold down rods and edge of batteries.

Install **new** flat washers and Nylok nuts on hold down rods.

Tighten nuts securely. **Do not over tighten or battery damage could occur.**

Re-install all battery cables. Tighten battery post fasteners securely.



11

16 September 2008

## Cab Insulation Removal



12

16 September 2008

### Remove cab insulation

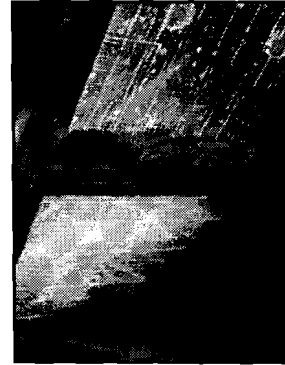
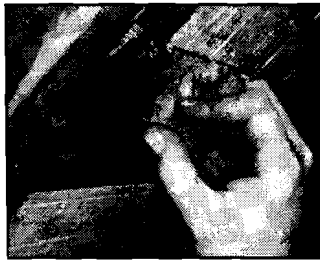
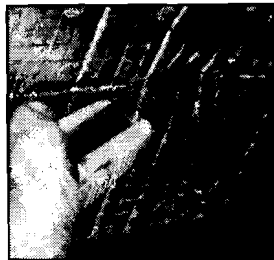


Locate first cab floor support angle rear of wheel well.

Mark a line 2.5 inches from front edge of insulation.

Using a straight edge cut along the marked line.

Carefully remove insulation keeping a neat appearance.



13

16 September 2008

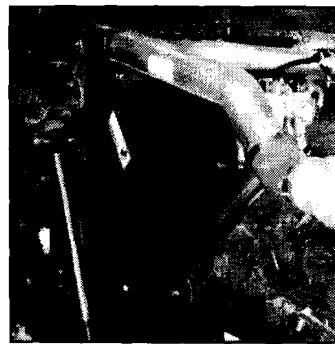
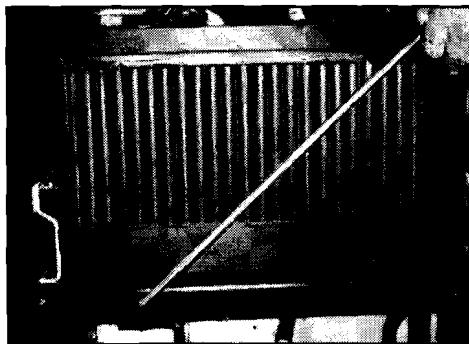
### Wrap up

Add battery tray spacer and remove cab insulation on other side of vehicle.

Check battery cable and battery hold down connections.

Carefully remove cab stay arm and lower cab.

Start truck. Make certain all vehicle starting and electrical functions operate properly.



14

16 September 2008

# Paperwork



## Warranty / Field Campaign Sign-Off Form - QSD911

After completing the upgrade, fill out and sign the warranty reimbursement form.

Give the fire chief a copy of the form.

Place the truck back in service.

The form is titled "Warranty / Field Campaign Sign-Off Form" and includes a Pierce logo. It contains the following sections:

- Field Campaign:** Number/Description, Customer Name, Job #, Repair Technician, Dealer, Date Repair Complete, Dealer Class #, Travel Hours, Labor Hours, SE, SW, NE, NW.
- Table:** A table with columns for Quantity, Cost, Material Cost, Parts Price, and Description. It has rows for Parts, Labor, Sublet, and Other Charges.
- Total Cost:** A line for Total Cost with a value of 20.00.
- Comments:** A section for additional notes.
- Contact Information:** Email for upgrade and service, and phone number for service (1-888-994-3722).
- Signature:** A line for the Warranty Claimant's signature.

