

**Via Email: RMD.ODI@dot.gov**

To: Defects and Recall Information Analysis Division  
Associate Administrator for Safety Assurance  
National Highway Traffic Safety Administration  
400 7<sup>th</sup> Street, SW  
Washington DC 20590

**PART 573 Defect and Noncompliance Report**

Report Date: August 1, 2012

On July 31, 2012, Vermeer Manufacturing Company, d/b/a Vermeer Corporation, determined that there is a defect which relates to motor vehicle safety with respect to certain motor vehicles listed below, and is furnishing notification to the National Highway Traffic Safety Administration in accordance with 49 CFR Part 573 Defect and Noncompliance Reports.

**1. Fabricating Manufacturer:**

Vermeer Manufacturing Company, d/b/a Vermeer Corporation  
1210 Vermeer Road East  
Pella, IA 50219

**Telephone:** 641-628-3141                      **Fax:** 641-621-7739

**Contact Name and Title:** Lois Slings  
Product Liability Risk Manager

**Name and Title of Person Who Prepared Report:** Tom Haley  
Product Safety Engineering Manager

**Signed:**  **Date:** August 1, 2012

**I. Identify the Vehicle Models Involved in the Recall**

2. **Manufacturer's Identification Code:** IK00-1731

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**3. Vehicle Identification:**

<b>Make:</b>	Vermeer	<b>Model Years Involved:</b>	2009-2012	
<b>Units Involved (Estimated)</b>				
<b>Model</b>	<b>Production Dates</b>		<b>VIN Range</b>	
	<b>Beginning</b>	<b>Ending</b>	<b>Beginning</b>	<b>Ending</b>
BC1000XL	01/03/2011	07/30/2012	1VRY11199B1	1VRY1119XD1
BC1200XL	07/01/2009	07/23/2012	1VR7141Y191	1VR7141Y4C1
			1VR7141Y8C1	1VR7141Y0C1
BC1500	01/01/2011	07/30/2012	1VR2161V2B1	1VR2161V5C1
			1VR2161V1C1	1VR2161V2C1
BC1800XL	04/01/2012	07/30/2012	1VRY131Z4C1	1VRY131Z4C1
<b>Vehicle Type:</b>	Trailer – Single axle brush chipper			

**Description which characterizes/distinguishes the recalled vehicles from those model vehicles not included in the recall:** The VIN Range includes 3450 units.

**Identify the approximate percentage of the production of all the recalled models manufactured by your company between the inclusive dates of manufacture provided above, that the recalled model population represents. For example, if the recall involved Widgets equipped with certain items of equipment from January 1, 1996 through April 1, 1997, then what was the percentage of the recalled Widgets of all Widgets manufactured during that time period.**

100%

**II. Identify the Recall Population**

**4. Total Number of Vehicles Recalled Potentially containing the defect or noncompliance:**

<b>Model</b>	<b>Year</b>	<b>Number of Vehicles Potentially Involved</b>
BC1000XL	2011	1397
BC1000XL	2012	912
BC1200XL	2009	73
BC1200XL	2010	124
BC1200XL	2011	145
BC1200XL	2012	74
BC1500	2011	322
BC1500	2012	323

BC1800XL

2012

80

**Total Number Potentially Affected by the Recall:**

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3450

5. **Approximate percentage of Total Number of Vehicles Estimated to actually contact the defect or noncompliance:** 99.9% (less European units)

**Identify and describe how the recall population was determined, in particular how the recalled models were selected and the basis for the beginning and final dates of manufacture of the recalled vehicles:** Using various manufacturing documents and drawings, as well as personnel records, research was conducted to determine specific time periods for the four models involved when the mounting bolts, which secure the axle to the mainframe, may not have been properly torqued during the manufacturing process. Those specific time periods were cross-referenced to the build dates and serial number ranges of brush chippers built.

### **III. Describe the Defect or Noncompliance**

6. **Describe the defect or noncompliance. The description should address the nature and physical location of the defect or noncompliance. Illustrations should be provided as appropriate.**

Four mounting bolts and nuts are used to secure the axle assembly to the mainframe structure of the brush chippers. Manufacturing drawings require that the mounting bolts be torqued to a specific value, dependant upon Model of brush chipper. Due to changes in manufacturing personnel, impact wrenches were used to tighten the bolts rather than calibrated torque wrenches. As a result, some mounting hardware was under-torqued.

The following Exhibits are attached for reference:

- Exhibit A: BC1000XL
- Exhibit B: BC1200XL
- Exhibit C: BC1500
- Exhibit D: BC1800XL
- Exhibit E: BC1000XL Product Brochure
- Exhibit F: BC1200XL Product Brochure
- Exhibit G: BC1500 Product Brochure
- Exhibit H: BC1800XL Product Brochure

**Describe the cause(s) of the defect or noncompliance condition.**

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Manufacturing personnel used an impact wrench to tighten the mounting bolts/nuts which secure the axle assembly to the mainframe, instead of the required calibrated torque wrench.

### **Describe the consequence(s) of the defect or noncompliance condition.**

Axle mounting bolts could loosen resulting in damaged or missing hardware and axle separation from the brush chipper.

### **Identify any warning which can (a) precede or (b) occur.**

- (a) Loose axle mounting bolts
- (b) Unstable wheel or axle assembly

### **If the defect or noncompliance is in a component or assembly purchased from a supplier, identify the supplier by corporate name and address.**

Not applicable.

### **Identify the name and title of the chief executive officer or knowledgeable representative of the supplier.**

Not applicable.

## **IV. Provide the Chronology in Determining the Defect/Noncompliance**

*If the recall is for a defect, complete item 6, otherwise item 7.*

7. **With respect to a defect, furnish a chronological summary (including dates) of all the principle events that were the basis for the determination of the defect. The summary should include, but not be limited to, the number of reports, accidents, injuries, fatalities, and warranty claims.**

- 30-JUL-2012: **First field notification.** Email received from Vermeer dealer in Fontana, California regarding separation of axle from BC1500 brush chipper, S/N 3143, while towing on public roadway. Incident occurred on July 30, 2012. No personal injuries incurred. Various phone calls between dealer and manufacturer occurred to compile further data. See Photo attached as Exhibit I.
- 30-JUL-2012: **Second field notification.** While speaking on telephone with Vermeer dealer in Fontana, California regarding the first field notification, dealer service personnel mentioned that Vermeer dealer in Fowler, California had mentioned an axle bolt issue previously on BC1500 brush chipper, S/N 3053. Vermeer Environmental service department contacted Vermeer dealer in Fowler, California to inquire regarding previous incident who reported the following: Incident occurred on June 17, 2012 while BC1500, S/N 3053 was being rented by a customer. Dealer assumed that the rental customer had damaged the axle assembly and no report of incident was made to Vermeer Corporation, the manufacturer. The axle assembly on BC1500, S/N 3053 did not completely separate from unit but bolts were loose. See Photo attached as Exhibit J.
- 30-JUL-2012: Environmental Service Department contacted Environmental Vermeer manufacturing managers to advise them of potential issue. Employees assigned to check completed machine inventory at factory. Several brush chippers were found to have hardware loose by one-quarter to one-full turn using torque wrench set at proper torque value.
- 30-JUL-2012: Stop shipment on listed brush chippers was issued late afternoon.
- 31-JUL-2012: Product Safety department met with Vermeer Environmental staff regarding issue. Product Safety department staff concluded that a manufacturing error had occurred and safety campaign will be issued. Tasks were assigned to put additional processes in place to ensure correct torque on future production units; to order replacement bolts/nuts from vendor for field campaign; and, to begin development of service bulletin and field kit instructions.
- 31-JUL-2012: Employees assigned to continue checking inventory at factory. All axle bolts/nuts were torqued properly. Stop shipment removed in late afternoon.

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**With respect to a noncompliance, identify and provide the test results or other data (in chronological order and including dates) on which the noncompliance was determined.**

Not applicable.

**Furnish a description of the manufacturer's remedy for the defect or noncompliance. Clearly describe the differences between the recall condition and the remedy.**

Replace 4 mounting bolts and 4 nuts and tighten to proper torque specification.

**Clearly describe the distinguishing characteristics of the remedy component/assembly versus the recalled component/assembly.**

Dealers will be instructed to remove one of the four mounting bolts/nuts, install replacement bolt/nut and torque to required torque specification, and repeat until all four mounting bolts/nuts have been replaced.

**Identify and describe how and when the recall condition was corrected in production. If the production remedy was identical to the recall remedy in the field, so state. If the product was discontinued, so state.**

Manufacturing personnel were advised on July 30, 2012, of the issue. Further training and instructions were provided to torque the mounting bolts/nuts to required specification with correct tools. Additional visual training documents will be produced and provided to manufacturing personnel.

### **VI. Identify the Recall Schedule**

**Furnish a schedule or agenda (with specific dates) for notification to other manufacturers, dealers/retailers, and purchasers. Please, identify any foreseeable problems with implementing the recall.**

- 09-AUG-2012: Complete development of field modification kit, including securing replacement parts and writing installation instructions.
- 15-AUG-2012: Parts (bots/nuts) for field repair estimated arrival date.
- 17-AUG-2012: Manufacturer will publish Service Bulletin and Kit Instructions to dealers introducing field modification kit via company-to-dealer website.
- 17-AUG-2012: Manufacturer will provide listing of affected units in the dealer's area via fax and/or email.
- 24-AUG-2012: Manufacturer will notify owners of mandatory field modification via certified/registered US mail.

#### **VII. Furnish Recall Communications**

**11. Furnish a final copy of all notices, bulletins, and other communications that relate directly to the defect or noncompliance and which are sent to more than one manufacturer, distributor, or purchaser. This includes all communications (including both original and follow-up) concerning this recall from the time your company determines the defect or noncompliance condition on, not just the initial notification. A *DRAFT copy of the notification documents should be submitted to this office by Fax (202-366-7882) or by E-Mail to [RMD.ODI@dot.gov](mailto:RMD.ODI@dot.gov) for review prior to mailing.* Note that these documents are to be submitted separately from those provided in accordance with Part 579.5 requirements.**