December 23, 2010

Mr. Claude Harris
Acting Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE
West Building, Fourth Floor
Washington, D.C. 20590

Dear Mr. Harris:
Attached is Chrysler Group LLC's ("Chrysler Group") Defect Information Report, complying with the requirements of 49 CFR Part 573, Defect and Noncompliance Reports, which contains details of a potential safety related defect in some 2008-2011 model year Dodge Ram (4500/5500) and Sterling vehicles.

Chrysler Group will conduct a voluntary safety recall to replace the left outer tie rod assembly on all affected vehicles.


David D. Dillon

Enclosure: Defect Information Report for Chrysler Recall K28
cc: Richard Boyd, NHTSA

## DEFECT INFORMATION REPORT FOR CHRYSLER GROUP LLC Page 1

Submission date: December 23, 2010

Identifying classification of vehicles potentially affected:

| Make(s) | Model(s) | Model <br> Year(s) | Inclusive Dates of <br> Manufacture | Volume | Assembly <br> Plant(s) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Dodge | Ram | $2008-$ | August 2007- |  |  |
| Sterling |  | 2011 | 22,274 <br> September 2010 <br> (estimated) | Saltillo Truck <br> Assembly Plant |  |

Estimated percentage containing defect: unknown

## Description of defect:

Certain 2008 to 2011 MY Dodge Ram 4500/5500 vehicles may experience a weakening and fracture of the left ball stud on the tie rod resulting in the potential loss of directional stability.

The name, address and telephone number of the supplier who manufactured the subject components:

> Powers \& Sons LLC
> 1613 Magda Dr.
> Montpelier, OH 43543-2020
> (419) 485-3151

The following chronology of principal events led to the determination of a defect:

- From its introduction in the 2008 MY, Dodge Ram 4500 and 5500 vehicles were designed with a higher steer angle to achieve a greater turning radius, which increases the fore/aft ball stud articulation. The steering system consists of a steering gear with a link to the right front wheel and cross-car linkage from the right front wheel to the left wheel.
- The cross-car steering linkage consists of two connected tie rods with ball studs at each end that must be aligned for proper articulation during steering events and road inputs. The steering linkage was designed to include a reverse pin ball joint on the right tie rod to minimize vertical movement on rough road conditions, because such movement could over time lead to degradation in steering and handling characteristics as well as ball stud fatigue.
- From August 2007 to December 2010, there were approximately 86 customer complaints of left tie rod replacements due to a fracture of the ball stud. The majority of these reports occurred outside of the warranty period and, until recently, it was unknown whether these heavy-duty vehicles were experiencing customer usage patterns that exceeded the intended durability duty cycle.


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- Investigation revealed that the reverse pin ball stud and the higher steer angle required that all of the necessary fore/aft articulation occur at the left ball stud. It was discovered that any misalignment between the left and right ball studs during the front-end alignment toe set process - whether during assembly or a service realignment -- may decrease the available window of fore/aft ball joint articulation. The decreased window of ball joint articulation can lead to a condition where the left ball stud is forced to articulate beyond its design window, resulting in fatigue over time, and fractured left ball studs on some vehicles.
- A September 2010 pilot program at the Saltillo Assembly Plant was launched to study the effects of improved front-end alignment on the fore/aft left / right ball joint alignment. The study was concluded in December and confirmed that an enhanced toe alignment process maintains the correct ball joint alignment.
- Chrysler Group LLC is not aware of any crashes or injuries arising from a weakened or fractured the left ball stud in the affected vehicles.
- On December 21, 2010, this data was presented to the Vehicle Regulations Committee, who decided to conduct a voluntary safety recall.


## Statement of measures to be taken to correct defect:

Chrysler will conduct a voluntary safety recall to replace the left outer tie rod on all affected Dodge Ram vehicles. Chrysler expects to initiate national notification to both dealers and owners in January of 2010.

Chrysler has a longstanding policy and practice of reimbursing owners who have incurred the cost of repairing a problem that subsequently becomes the subject of a field action. To ensure consistency, Chrysler, as part of the owner letter, will request that customers send original receipt and/or other adequate proof of payment to the company for confirmation of the expense.

