

# DAIMLERCHRYSLER

DaimlerChrysler Corporation

Stephan J. Speth

Director

Vehicle Compliance & Safety Affairs

June 6, 2002

Mr. Kenneth N. Weinstein  
Associate Administrator, Safety Assurance  
National Highway Traffic Safety Administration  
400 Seventh Street, S.W.  
Washington, D.C. 20590

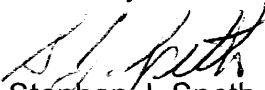
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Dear Mr. Weinstein:

Attached is DaimlerChrysler Corporation's Defect Information Report, complying with the requirements of 49 CFR Part 573, Defect and Noncompliance Reports, which contains details of a recall regarding some 2002 model year Dodge Ram Trucks. Insufficient weld penetration between the rear axle tube and the axle flange on a small number of vehicles could result in a long-term durability issue. The lack of weld penetration may allow the weld to fatigue and the brake caliper assembly to rotate, potentially resulting in a loss of brake fluid in the rear brake hydraulic system. DaimlerChrysler Corporation will conduct a safety recall to install Rear Brake Caliper Reinforcements on the affected vehicles.

DaimlerChrysler will formalize the requirements and instructions to dealers in the future. Copies will be provided to the NHTSA when available, and Vehicle Identification Number range and assembly plant information for the involved vehicles will also be furnished at that time. A Defect Information Report regarding this recall is attached.

Sincerely,

  
Stephan J. Speth

Enclosures: Defect Information Report for DaimlerChrysler Corporation Recall # B20

cc: K. C. DeMeter, NHTSA  
Division of Occupational Safety & Health  
California Department of Industrial Relations

# DEFECT INFORMATION REPORT FOR DAIMLERCHRYSLER RECALL # B20

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**Submission date:** June 6, 2002

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## Identifying classification of vehicles potentially affected:

<u>Make</u>	<u>Model</u>	<u>Model Year</u>	<u>Inclusive Dates of Manufacture</u>	<u>US Market Volume</u>	<u>Other</u>
Dodge	Ram	2002	07/2001 through 11/30/2001	46,000 (Est.)	4x4 only

**Estimated percentage containing defect:** 3.6%

## Description of defect:

The rear axle flange weld to the axle tube may fatigue and allow the brake caliper assembly to rotate. During rotation, the brake line may separate from the caliper resulting in a brake fluid loss in the rear brake hydraulic system.

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

Tool Dex Companies  
22727 Nagle  
Warren, MI 48089  
(586) 756-1547

## The following chronology of principal events occurred between late November 2001 and late May 2002 and led to the determination of a defect:

- In late November of 2001, one vehicle was identified during validation at DaimlerChrysler's Saltillo Truck Assembly Plant that lost rear brake effectiveness. Inspection of the vehicle's rear brake system revealed that the caliper assembly had rotated around the rear axle tube at the flange weld. During the rotation, the rear brake line separated from the brake caliper.
- Review of the subject axle established that the weld was not properly targeted which limited proper weld penetration.
- It was established that Tool Dex, a sub-supplier to DaimlerChrysler, welded the subject axle tube. The sub-supplier does this particular weld operation for Dodge Ram Truck 4x4 light duty applications only. Axles for Dodge Ram Truck 4x2 applications are welded at DaimlerChrysler and are not affected by this issue.
- All DaimlerChrysler Assembly plants that manufacture Dodge Ram Trucks stopped shipment of vehicles and validated all axle assemblies by visually inspecting the inside of the axle tubes for the presence of heat from the welding process. Thirty-three percent of the contained vehicles did not meet the visual acceptance criteria and were retrofitted with certified axle assemblies.

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- Because the visual acceptance criterion was conservative in nature, it was known that the visual sort could reject axles that exceeded the minimum strength requirements. Therefore, the axles that did not meet the visual acceptance criteria were further analyzed using a destructive weld strength test. Approximately eleven percent of the parts did not meet the minimum strength requirement. This represents 3.6% of the total contained vehicle population.
- Assemblies that did not meet the visual acceptance criteria were subjected to Torsional Fatigue Testing. This Fatigue Test is an accelerated bench test that inputs worst-case brake loads to evaluate weld integrity. Although this lab testing is much more severe than any vehicle durability loading, it can give an indication of whether a long-term durability condition could exist. The bench testing established that the suspect welds could fatigue during long term, high mileage vehicle usage.
- A survey of vehicles built early in the 2002 model year was initiated. Four axles that did not meet the visual acceptance criteria were subjected to severe vehicle level brake tests to establish correlation with the weld strength tests and the torsional fatigue testing.
- No issues were experienced during vehicle level testing, so the assemblies were evaluated using the destructive weld test. All of the assemblies exceeded the weld strength requirements.
- There have been no warranty or customer complaints associated with this issue.
- This data was presented to the Vehicle Regulations Committee on May 30, 2002, who decided to conduct a safety recall because a potential long-term durability issue may exist on a small percentage of vehicles.

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

DaimlerChrysler Corporation will install Rear Brake Caliper Reinforcements on the rear axle assemblies of the affected vehicles. DaimlerChrysler expects to implement parts distribution and national notification to both dealers and owners when a sufficient quantity of parts becomes available. DaimlerChrysler's scheduling information for implementing this recall is not available at this time.

DaimlerChrysler Corporation has a long standing 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, DaimlerChrysler Corporation, 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.