SUBJECT: NO:
Clunk/Rattle Felt In
Steering Column/Wheel

GROUP: Steering

DATE: May 30, 1997


MODELS:

1996 - 1997 (BR) Ram Truck

NOTE: THIS BULLETIN APPLIES TO ALL VEHICLES BUILT IN THE UNITED STATES (FIRST DIGIT OF VIN = 1) AND VEHICLES BUILT IN MEXICO (FIRST DIGIT OF VIN = 3) BEFORE MAR. 3, 1997 (MDH 0303XX).

SYMPTOM/CONDITION:

A clunk or rattle may be felt in the steering wheel/column during slow turns, rough road driving, and stops.

DIAGNOSIS:

Perform inspection of front suspension and steering components, including a check of all fasteners for proper torque as specified in the appropriate Service Manual. Test drive the vehicle on a rough or bumpy road. With both hands on the steering wheel, feel for a clunk or listen for a rattling type noise. If felt or heard, follow the repair procedure.

PARTS REQUIRED:

2 06504926AA Pinch Bolt, Intermediate Shaft
AR (1) 55351113AA Intermediate Shaft, All 4X4 Vehicles And 3500 Series Cab Chassis 4X2
AR (1) 55351114AA Intermediate Shaft, All 4X2 Vehicles Except 3500 Series Cab Chassis 4X2
AR (1) 52009229 Brake Tube Assembly, RWAL Valve To Junction, Vacuum Power Brake System
REPAIR PROCEDURE:

This bulletin involves the replacement of the intermediate shaft with a new intermediate shaft and on some vehicles, installing brake tubes.

1. Position the front wheels straight ahead, then turn the steering wheel slightly to the left (eleven o-clock position). Place a steering wheel holder, Snap-On tool # WA96A or equivalent, between the steering wheel and the driver's seat to secure the wheel.

2. Open the hood of the vehicle and remove the pinch bolt securing the intermediate shaft to the lower end of the steering column shaft.

FIGURE 1 - Intermediate Shaft Pinch Bolt
3. Remove the pinch bolt securing the lower end of the intermediate shaft to the steering gear.

4. Compress the intermediate shaft and remove it from the vehicle.

5. Install the new intermediate shaft (see Parts Required section) onto the shaft splines of the steering gear, then install the new intermediate shaft onto the lower end of the steering column shaft. It may be necessary to compress the new intermediate shaft before installation, then lengthen it as it is installed at each end. These splines incorporate a master spline so the intermediate shaft can only be installed in one position at each end.

6. Install new pinch bolts, p/n 06504926AA, at each end of the intermediate shaft and torque to 49 Nm (36 ft. lbs.).

7. Remove the steering wheel holder from the steering wheel.

8. Inspect the first position of the VIN to identify if the vehicle was built in the United States. If the VIN begins with a 1, then the vehicle was built in the United States. If the VIN begins with a 3, then the vehicle was built in Mexico.

   NOTE: IF THE VEHICLE WAS BUILT IN MEXICO, THE REPAIR IS COMPLETE. IF THE VEHICLE WAS BUILT IN THE UNITED STATES, PROCEED TO THE NEXT REPAIR PROCEDURE.

9. Several brake tubes will require replacement to provide proper clearance between the intermediate shaft and the brake tubes. Perform the following brake tube replacement procedure.

   NOTE: THE FOLLOWING PORTION OF THE REPAIR PROCEDURE IS FOR VEHICLES BUILT IN THE UNITED STATES ONLY.

REAR WHEEL ANTILOCK (RWAL) BRAKE TUBE REPLACEMENT PROCEDURE

1. The following chart identifies which brake tubes and attaching brackets should be installed to provide the proper clearance between the intermediate shaft the brake tubes.
2. Apply the brakes slightly and install a brake pedal prop.

3. Disconnect the RWAL valve electrical connector.

4. Disconnect the brake tube fitting at the combination valve.

5. Disconnect the brake tube fitting at the RWAL valve.

6. Disconnect the brake tube fitting at the junction block on the left frame rail.

7. Disconnect the brake tube fitting at the left front brake tube flex hose.

8. Remove and discard the brake tubes that were attached to the RWAL valve and the combination valve.

9. Connect the RWAL valve electrical connector.

10. Install new brake tube (p/n 52009128 for vacuum power brake systems or p/n 52009654AA for hydroboost power brake systems) onto the combination valve and the left front brake tube flex hose.

11. Install new brake tube (p/n 52009229 for vacuum boost power brake systems or p/n 52009655AA for hydroboost power brake systems) onto the RWAL valve and the junction block located on the left frame rail.

12. Install the 3-way brake line bracket and clip (p/n 52009441) onto the RWAL valve stud. Secure the bracket with attaching nut p/n 06101675. Then install the brake tubes into the clip.

13. Attach the 3-way brake tube support clip, p/n 52009437, to the brake tubes located on the top of the left frame rail.
14. Attach the 2-way brake line clip, p/n 52008940, to the brake tubes approximately 7 - 8 inches rearward of the 3-way brake line bracket and clip.

15. Tighten and torque all brake tube fittings to 20 Nm (178 in. lbs.).

16. Remove the brake pedal prop.


18. Fill the master cylinder with Mopar Dot 3 Brake Fluid, p/n 04318080.

19. Verify that there is proper clearance between the intermediate shaft and the brake lines by turning the steering wheel completely to the left then to the right. Visually inspect the intermediate shaft while turning the steering wheel to ensure that the intermediate shaft does not contact the brake lines at any time.

FOUR WHEEL ABS BRAKE TUBE REPLACEMENT PROCEDURE

1. The following chart identifies which brake tubes and attaching brackets should be installed to provide the proper clearance between the intermediate shaft and the brake tubes.

<table>
<thead>
<tr>
<th>BRAKING SYSTEM</th>
<th>QUANTITY</th>
<th>COMPONENT DESCRIPTION</th>
<th>VACUUM BOOST PART NUMBER</th>
<th>HYDROBOOST PART NUMBER</th>
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<td>Four Wheel ABS</td>
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<td>Brake Tube Assembly - RWAL Valve To Junction Block</td>
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<td>52009655AA</td>
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<td>1</td>
<td>Brake Tube Assembly - Hydraulic Control unit (HCU) Left Front Port To Brake Hose</td>
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<td>2</td>
<td>2-Way brake Line Clip</td>
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<td>52008940</td>
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<td></td>
<td>1</td>
<td>3-Way Brake Line Clip</td>
<td>52009163</td>
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<td></td>
<td>1</td>
<td>Bracket And Clip Retaining Nut</td>
<td>06101675</td>
<td>06101675</td>
</tr>
</tbody>
</table>

2. Apply the brakes slightly and install a brake pedal prop.

3. Disconnect the RWAL valve electrical connector.

4. Disconnect both right and left front brake tubes at the hydraulic control unit (Figure 2).
5. Disconnect the brake tube fitting at the RWAL valve.

6. Disconnect the brake tube fittings at both front and rear junction blocks on the left frame rail.

7. Disconnect the brake tube fitting at the left front brake tube flex hose.

8. Remove and discard the brake tubes that were attached to the RWAL valve and the hydraulic control unit.

9. Connect the RWAL valve electrical connector.

10. Install new brake tube, p/n 52009330, into the front port of the hydraulic control unit and into the forward junction block at the frame rail.

11. Install new brake tube, p/n 52009231, into the rear port of the hydraulic control unit and into the left front brake tube flex hose.

12. Install new brake tube (p/n 52009229 for vacuum boost power brake systems or p/n 52009655AA for hydroboost power brake systems) onto the RWAL valve and into the rear junction block located on the left frame rail.

13. Install the 3-way brake line bracket and clip (p/n 52009441) onto the RWAL valve stud. Secure the bracket with attaching nut p/n 06101675. Then install the brake tubes into the clip.

14. Install two 2-way brake line clips, p/n 52008940, between the 3-way brake line bracket and clip and the hydraulic control unit. One clip should be spaced approximately three inches away from the hydraulic control unit and the other approximately three inches forward of the 3-way brake line bracket and clip.
15. Attach the 3-way brake tube support clip, p/n 52009437, to the brake tubes located on the top of the left frame rail.

16. Attach the 3-way brake line clip, p/n 52009163, to the brake tubes approximately 7 - 8 inches reward of the 3-way brake line bracket and clip.

17. Tighten and torque all brake tube fittings to 20 Nm (178 in. lbs.).

18. Remove the brake pedal prop.


20. Fill the master cylinder with Mopar Dot 3 Brake Fluid, p/n 04318080.

21. Verify that there is proper clearance between the intermediate shaft and the brake lines by turning the steering wheel completely to the left then to the right. Visually inspect the intermediate shaft while turning the steering wheel to ensure that the intermediate shaft does not contact the brake lines at any time.

POLICY: Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:
Labor Operation No:

19-20-12-94 Replace Steering Column Intermediate shaft (Mexico Built). 0.3 Hrs.

19-20-12-95 Replace Steering Column Intermediate Shaft and Brake lines - Gas Engines - Without Four Wheel ABS ........................................ 1.1 Hrs.

19-20-12-96 Replace Steering Column Intermediate Shaft and Brake lines - Gas Engines - With Four Wheel ABS ........................................ 1.2 Hrs.

19-20-12-97 Replace Steering Column Intermediate Shaft and Brake lines - Diesel Engines - Without Four Wheel ABS ........................................ 1.2 Hrs.

19-20-12-98 Replace Steering Column Intermediate Shaft and Brake lines - Diesel Engines - With Four Wheel ABS ........................................ 1.3 Hrs.

FAILURE CODE: P8 - New Part