SUBJECT: NO: 02-10-98
Squeaking Noise From Strut Bearing(s) GROUP: Suspension
DATE: Sept. 25, 1998

NOTE: THIS BULLETIN APPLIES TO VEHICLES BUILT THROUGH OCT. 1, 1998.

SYMPTOM/CONDITION:

A squeaking/chirping noise is heard (inside or outside the vehicle) from the strut tower area(s) when turning the steering wheel or when the vehicle is driven over any irregularities in the road surface.

DIAGNOSIS:

With the vehicle on a level surface, hold a front suspension coil spring, with your hands near 180° apart, and try to rotate the spring right and left. If a squeaking/chirping noise is heard from the top of the strut tower, perform the Repair Procedure. Repeat for the opposite side strut tower.

PARTS REQUIRED:

AR (2) 04684418 Bearing, Strut Upper Pivot

REPAIR PROCEDURE:

This bulletin involves replacing the strut upper pivot bearing(s).

WARNING: DO NOT REMOVE THE NUT FROM THE STRUT ROD WHILE STRUT ASSEMBLY IS INSTALLED IN VEHICLE, OR BEFORE STRUT ASSEMBLY SPRING IS COMPRESSED.

1. Raise vehicle on jack stands or centered on a frame contact type hoist. See Hoisting in the Lubrication and Maintenance section of the service manual, for the required lifting procedure to be used for this vehicle.

2. Remove the front wheel and tire assembly from the vehicle.
3. Remove the hydraulic brake hose routing bracket and the speed sensor cable routing bracket from the strut damper brackets (Figure 1).

**NOTE:** WHEN REMOVING NUT FROM STUD OF STABILIZER BAR ATTACHING LINK, DO NOT ALLOW STUD TO ROTATE. HOLD STUD FROM ROTATING BY INSERTING A TORX PLUS 40 IP BIT IN THE END OF THE STUD AS SHOWN IN FIGURE 2.

4. Remove the stabilizer bar attaching link from the bracket on the strut assembly (Figure 2).

**CAUTION:** THE STEERING KNUCKLE TO STRUT ASSEMBLY ATTACHING BOLTS ARE SERRATED AND MUST NOT BE TURNED DURING REMOVAL. REMOVE NUTS WHILE HOLDING BOLTS STATIONARY IN THE STEERING KNUCKLES.

5. Remove the 2 strut assembly clevis bracket to steering knuckle attaching bolts (Figure 3).

6. Remove the 3 nuts attaching the strut assembly upper mount to the strut tower and remove the strut assembly from the vehicle (Figure 4).
7. Position the strut assembly in the strut coil spring compressor (Pentastar Service Equipment (PSE) tool W-7200, or the equivalent) closely following the manufacturers instructions. The strut clevis bracket should be positioned outward. Position the upper hooks on top of the coil spring upper seat. Place a clamp on the lower end of the coil spring, so the strut is held in place once the strut shaft nut is removed (Figure 5 and 6).

![Figure 5](image1.png)

![Figure 6](image2.png)

**WARNING:** DO NOT REMOVE THE STRUT SHAFT NUT BEFORE THE COIL SPRING IS COMPRESSED. THE COIL SPRING IS HELD UNDER PRESSURE AND MUST BE COMPRESSED, REMOVING SPRING TENSION FROM THE UPPER MOUNT AND PIVOT BEARING, BEFORE THE SHAFT NUT IS REMOVED.

8. Compress the coil spring until all coil spring tension is removed from the upper mount.

9. Install Strut Nut Socket, Special Tool 6864, on the strut shaft retaining nut. Next, install a 10 mm socket on the hex on the end of the strut shaft. While holding the strut shaft from turning, remove the nut from the strut shaft.

10. Remove the upper mount from the strut shaft.

11. Remove the upper pivot bearing from the top of the coil spring upper seat by pulling it straight up.
12. Install the new pivot bearing on the top of the upper spring seat. The bearing must be installed on upper seat with the smaller diameter side of the pivot bearing toward the spring seat (Figure 7). Be sure the pivot bearing is sitting flat on the spring seat once mounted.

13. Install the upper mount over the strut shaft and onto the top of the pivot bearing and upper seat (Figure 6). Loosely install the retaining nut on the strut shaft.

14. Install Strut Nut Socket (on the end of a torque wrench), Special Tool 6864, on the strut shaft retaining nut. Next, install a 10 mm socket on the hex on the end of the strut shaft. While holding the strut shaft from turning, tighten the strut shaft retaining nut to a torque of 94 Nm (70 ft. lbs.).

15. Slowly release the tension from the coil spring by backing off the spring compressor drive fully. As the tension is relieved, make sure the upper mount, pivot bearing and upper seat align properly. Remove the clamp from the lower end of the coil spring and strut. Push back the spring compressor upper and lower hooks, then remove the strut assembly from the spring compressor.

16. Install strut assembly into strut tower, aligning and installing the 3 studs on the upper strut mount into the holes in strut tower. Install the 3 upper strut mount attaching nut/washer assemblies. Then using a crow foot, tighten the 3 attaching nuts to a torque of 28 Nm (250 in. lbs.).

**CAUTION:** THE STEERING KNUCKLE TO STRUT ASSEMBLY ATTACHING BOLTS ARE SERRATED AND MUST NOT BE TURNED DURING INSTALLATION. INSTALL NUTS WHILE HOLDING BOLTS STATIONARY IN THE STEERING KNUCKLES.

17. Align strut assembly with steering knuckle. Position arm of steering knuckle into strut assembly clevis bracket. Align the strut assembly clevis bracket mounting holes with the steering knuckle mounting holes. Install the 2 strut assembly to steering knuckle attaching bolts (Figure 3).
NOTE: IF STRUT ASSEMBLY IS ATTACHED TO STEERING KNUCKLE USING A CAM BOLT, THE CAM BOLT MUST BE INSTALLED IN THE LOWER SLOTTED HOLE ON THE STRUT CLEVIS BRACKET. ALSO, ATTACHING BOLTS SHOULD BE INSTALLED WITH THE NUTS FACING THE FRONT OF THE VEHICLE.

18. Tighten the strut assembly to steering knuckle attaching bolts to a torque of 88 Nm (65 ft. lbs.) plus an additional 1/4 turn after specified torque is met.

19. Install stabilizer bar attaching link on bracket of strut assembly. Install stabilizer bar attaching link to strut bracket attaching nut.

NOTE: WHEN TORQUING NUT ON STUD OF STABILIZER BAR ATTACHING LINK, DO NOT ALLOW STUD TO ROTATE. HOLD STUD FROM ROTATING BY INSERTING A TORX PLUS 40 IP BIT IN THE END OF THE STUD (FIGURE 8).

20. Tighten the stabilizer bar link to strut attaching nut using a Torx Plus 40 IP bit and crowfoot to a torque of 88 Nm (65 ft. lbs.) (Figure 8).

21. Install hydraulic brake hose and speed sensor cable routing brackets on the strut assembly brackets (Figure 1). Tighten the routing bracket attaching bolts to a torque of 13 Nm (10 ft. lbs.).

22. Install the wheel/tire assembly on the vehicle.

23. Install and tighten the wheel mounting stud nuts in a cris-cross pattern until all nuts are torqued to half specification. Then repeat the tightening sequence to the full specified torque of 135 Nm (100 ft. lbs.).

24. Repeat step 2 through 23 for the other side strut, if necessary.
POLICY: Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:
Labor Operation No:
  02-05-39-93  One Side ........................................... 0.9 Hrs.
  02-05-39-94  Two Sides ........................................... 1.6 Hrs.

FAILURE CODE: P8 - New Part