# **Service Bulletin**

Mazda North American Operations Irvine, CA 92618-2922



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Subject:

**KNOCKING / SQUEAKING NOISE FROM FRONT STRUT BEARING** 

**Bulletin No:** 02-003/15

Last Issued: 02/04/2015

#### **BULLETIN NOTE**

- This bulletin supersedes the previous bulletin 02-005/13, issued on 08/24/13 and 11/11/13. The APPLICA-BLE MODEL(S)/VINS, DESCRIPTION, REPAIR PROCEDURE, PART(S) and WARRANTY INFORMATION have been revised.
- Changes are noted below in Red beside the change bar.

# **APPLICABLE MODEL(S)/VINS**

2013-2016 CX-5 vehicles with VINs lower than JM3KE\*\*\*\*\*\*615844 (produced before Jan. 1, 2015) 2014-2016 Mazda6 vehicles with VINs lower than JM1GJ\*\*\*\*\*404929 (produced before Jan. 6, 2015)

#### DESCRIPTION

Some vehicles may exhibit a knocking / squeaking noise from the front strut bearing (A) when driving on rough roads and/or when turning the steering wheel while the vehicle is stopped.

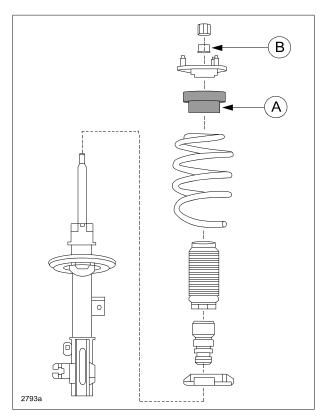
The noise may be due to upper front strut bearing damage or it may be due to stick/slip between the front strut bearing and coil spring.

To eliminate the noise, the following mass-production changes have been made:

- 1. The material and production method of the front strut bearing has been changed.
- 2. A protector has been installed onto the coil spring.

**NOTE:** The piston rod nut (B) requires replacement when the front strut bearing is replaced.

Customers having this concern should have their vehicle repaired using the following repair procedure.



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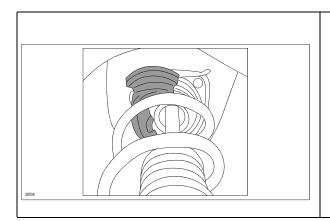
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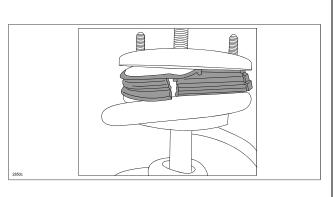
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# **REPAIR PROCEDURE**

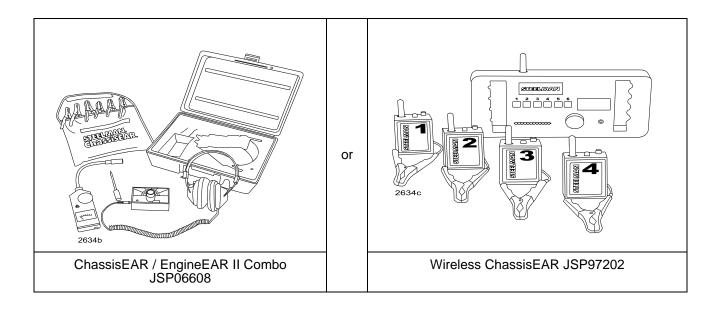
- 1. Verify the customer concern of knocking or squeaking noise coming from the front suspension.
- 2. Is the noise coming from the upper part of front shock absorber when turning the steering wheel?
  - Yes Proceed to Step 3.
  - No This bulletin does not apply.
- 3. Is the strut bearing broken as shown below?
  - Yes Proceed to Step 4.
  - No Proceed to Step 5.

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- 4. Replace the front strut bearing with a new one according to MS3 online instructions or the Workshop Manual (section 02-13 FRONT SHOCK ABSORBER AND COIL SPRING DISASSEMBLY/ASSEMBLY).
- 5. Use Special Service Tool (SST) ChassisEAR / EngineEAR II Combo JSP06608 or Wireless ChassisEAR JSP97202 to confirm noise is coming from the upper part of front shock absorber:
- NOTE: SST JSP06608 and JSP97202 are available for purchase on Mazda E-Store.



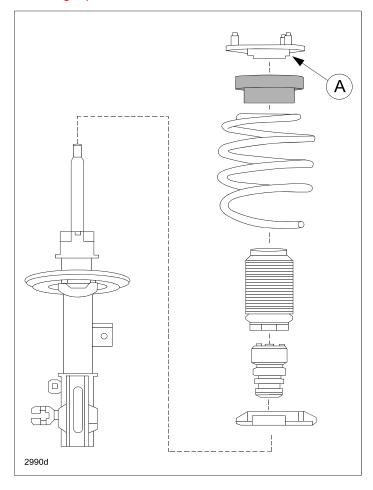
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- 6. Using ChassisEAR SST, is the noise coming from the upper part of the front shock absorber?
  - Yes Use the table below to determine if the subject vehicle is a Type A or Type B vehicle, then follow the appropriate repair.
  - · No This bulletin does not apply.

Model	VIN Range	Mass-Production Date Range	Type
CX-5	JM3KE*****100001 - 343674	~ April 16, 2013	Α
CX-5	JM3KE*****343675 - 615844	April 16, 2013 ~ Jan. 1, 2015	В
Mazda6	JM1GJ*****100001 - 121430	~ April 16, 2013	Α
Mazda6	JM1GJ*****121431 - 404929	April 16, 2013 ~ Jan. 6, 2015	В

# NOTE:

- Before removing the mounting rubber (A), mark its original position so it can be re-installed later to the same position.
- It is not necessary to adjust the front wheel alignment because the front shock absorber and mounting rubber are not being replaced.



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#### Repair For Type A Vehicles - (Modified strut bearing\* and coil spring protector installation):

1. Remove the front strut bearing and coil spring according to the MS3 online instructions or the Workshop Manual (section 02-13 FRONT SHOCK ABSORBER AND COIL SPRING DISASSEMBLY/ASSEMBLY).

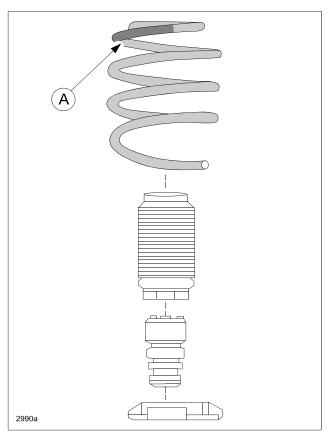
NOTE: \*If the front strut bearing is found to be damaged, replace it with a modified part.

- 2. Install a protector on the front coil spring according to "Coil Spring Protector (A) Installation" below.
- 3. Reinstall the front strut bearing and coil spring according to MS3 online instructions or the Workshop Manual (section 02-13 FRONT SHOCK ABSORBER AND COIL SPRING DISASSEMBLY/ASSEMBLY).
- 4. Repeat Steps 1 3 on the opposite side front suspension.
- 5. Verify repair.

# Repair For Type B Vehicles - (Coil spring protector installation only):

- 1. Remove the front strut bearing and coil spring according to MS3 online instructions or the Workshop Manual (section 02-13 FRONT SHOCK ABSORBER AND COIL SPRING DISASSEMBLY/ASSEMBLY).
- 2. Install a protector on the front coil spring according to "Coil Spring Protector (A) Installation" below.
- 3. Reinstall the front strut bearing and coil spring according to MS3 online instructions or the Workshop Manual (section 02-13 FRONT SHOCK ABSORBER AND COIL SPRING DISASSEMBLY/ASSEMBLY).
- 4. Repeat Steps 1 3 on the opposite side front suspension.
- 5. Verify repair.

#### **Coil Spring Protector (A) Installation:**

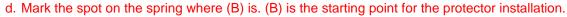


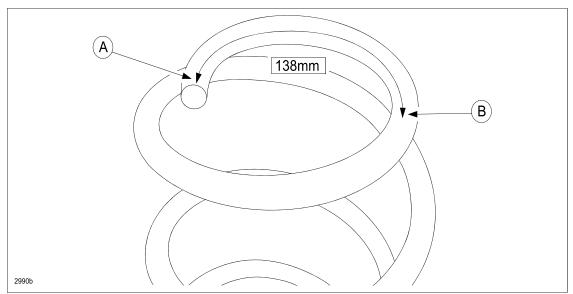
- a. Starting from the top of the coil spring, degrease the spring 1.5 coils downward.
- b. Cut a thin strip of paper to 138 mm in length (or use a cloth type measuring tape).

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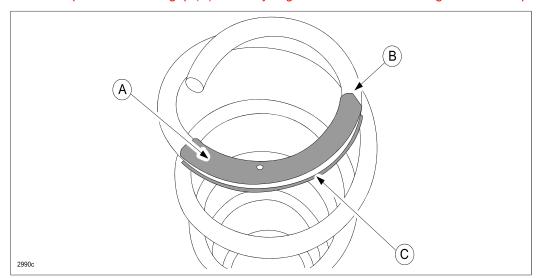
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c. Place the strip of paper (or cloth measuring tape) along the inner side of the coil spring starting at point (A).





e. Install the protector (A) onto the coil spring aligning the end (slant cut side) with the marking at spot (B). **NOTE:** Install the protector so the gap (C) is evenly aligned around the outer edge of the coil spring.



f. The inner side of the protector contains adhesive glue. After installing the protector onto the spring, press the inner side to firmly adhere it to the spring.

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# **PART(S) INFORMATION**

Part Number	Description	Qty.	Notes
KD35-34-38XA	Front Strut Bearing	1 or 2	
9YB0-41-237	Piston Rod Nut	2	Replace nut when front strut bearing is replaced.
KDY5-34-081	Protector	2	Coil spring protector

# **WARRANTY INFORMATION**

# NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	82
Damage Code	9A
Part Number Main Cause	KD35-34-38XA
Quantity	1 or 2
Operation Number / Labor Hours	XXKBKXRX / 0.9 Hrs.