Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

Subject:	**Bulletin No:** 02-001/08
NOISE FROM FRONT OR REAR SUSPENSION WHEN PASSING OVER A BUMP OR DRIVING ON UNEVEN ROAD	**Last Issued:** 03/14/2008

BULLETIN NOTE

This bulletin supersedes the previous bulletin 02-005/07 issued on 09/19/07. The APPLICABLE MODEL(S)/ VINS, DESCRIPTION, REPAIR PROCEDURE, PARTS and WARRANTY INFORMATION have been revised.

APPLICABLE MODEL(S)/VINS

2006-2007 Mazda5 vehicles with VINs lower than JM1 CR**** ** 145133 (produced before December 1, 2006) for front stabilizer bushings.

2006 Mazda5 vehicles with VINs lower than JM1 CR**** ** 111238 (produced before November 1, 2005) for rear stabilizer bushings.

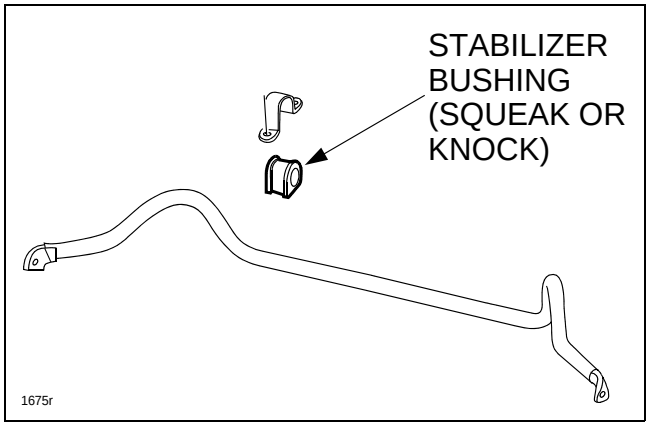
2006 Mazda5 vehicles with VINs lower than JM1 CR**** ** 120197 (produced before January 27, 2006) for lower arm.

2006-2007 Mazda5 vehicles with VINs lower than JM1 CR**** ** 160549 (produced before July 1, 2007) for rear suspension arc-welding bead.

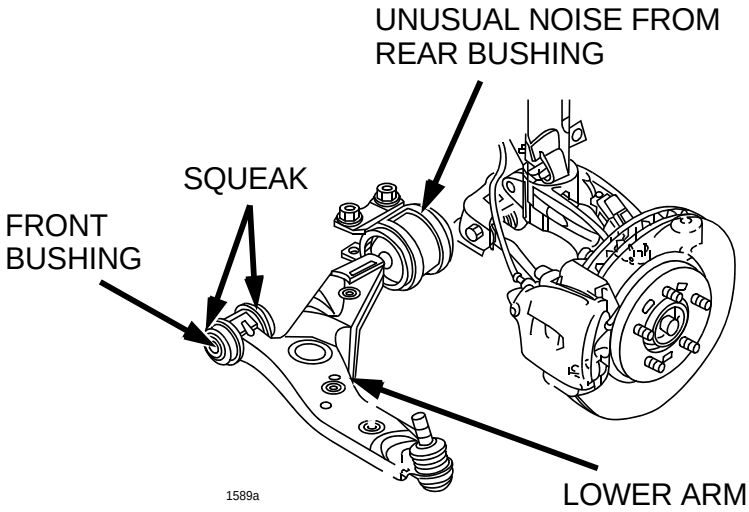
DESCRIPTION

Some vehicles may exhibit a squeak, knock, rattle/chatter, or unusual noise from the front suspension or rear suspension when passing over a bump at a low speed or driving on an uneven road. This is may be caused by one of the following:

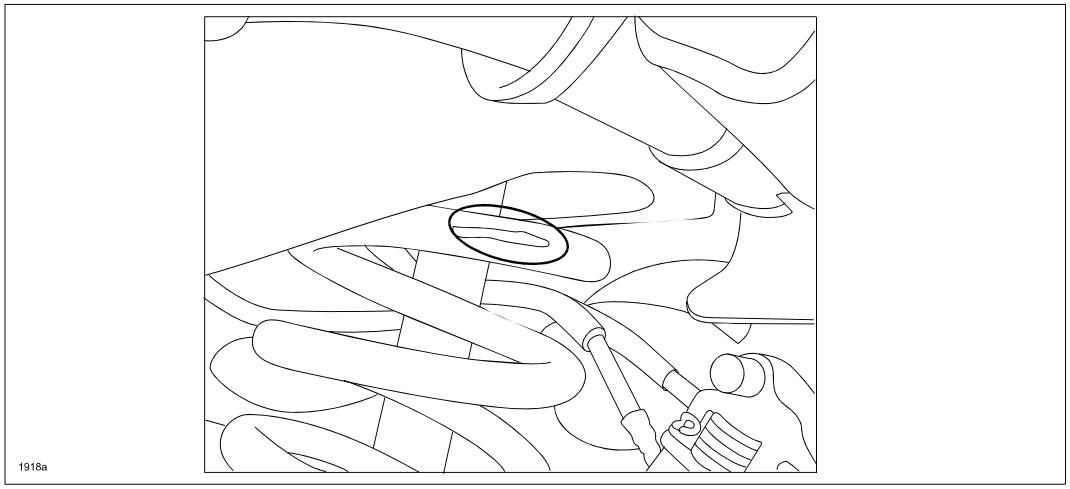
- The front/rear stabilizer bushing.



- The front or rear bushing of the front lower arm.



- The right rear coil spring has shifted in the spring seat rubber and/or upper spring pocket in the rear crossmember, and causing the spring to rub against the crossmember. This noise will most likely occur with the rear seat occupied, and can sound like a knock when going over a bump or a rattle when driving at a steady speed over uneven road surfaces. The problem is the arc-welding bead in the spring pocket on the crossmember where it makes contact with the spring seat rubber is protruding too much, causing the spring seat rubber to be pushed out of position.



	LOCATION	Front			Rear		
	NOISE	Squeak	Knock	Unusual	Squeak	Knock	Rattle/ Chatter
POSSIBLE	Front Stabilizer Bushings	X*	X				
ROOT	Front Lower Arm(s)	X		X			
CAUSE	Rear Stabilizer Bushings				X*		
	Arc-Welding Bead					X**	X***

*	More likely heard in colder outside temperatures.
**	More likely heard with weight in the rear going over a bump.
***	More likely heard with weight in the rear driving at a steady speed on uneven road surfaces.

To stop the noise, the following mass production changes have occurred.

- The stabilizer bar bushing rubber was made harder and the amount of wax that is included in the front/ rear stabilizer bushing has been increased.
- The position of the split in the front stabilizer bar bushing rubber has been changed.
- The shape of the front lower arms along with the attached bushings has been changed.
- The amount of arc-welding bead has been changed.

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

REPAIR PROCEDURE

1. Verify customer concern, specifically the location of the noise and root cause component, then move on to the procedures that apply. For the arc-welding bead on the rear crossmember, a visual inspection should confirm rub marks on the coil spring.
2. Verify each repair when finished.

FRONT LOWER CONTROL ARM (FOR SQUEAK)

1. Replace front lower arm. Refer to appropriate Workshop Manual section 02-13 - FRONT LOWER ARM REMOVAL / INSTALLATION.
2. Perform toe-in inspection and adjustment. Refer to appropriate Workshop Manual section 02-11 - FRONT WHEEL ALIGNMENT.

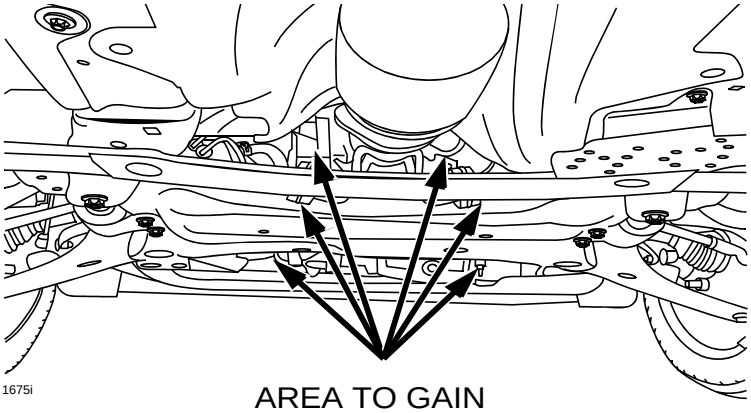
FRONT STABILIZER BUSHINGS (FOR SQUEAK OR KNOCK)

1. Raise the vehicle in the air.

   WARNING: Before working on the vehicle, make sure the vehicle's engine and exhaust are cooled down.

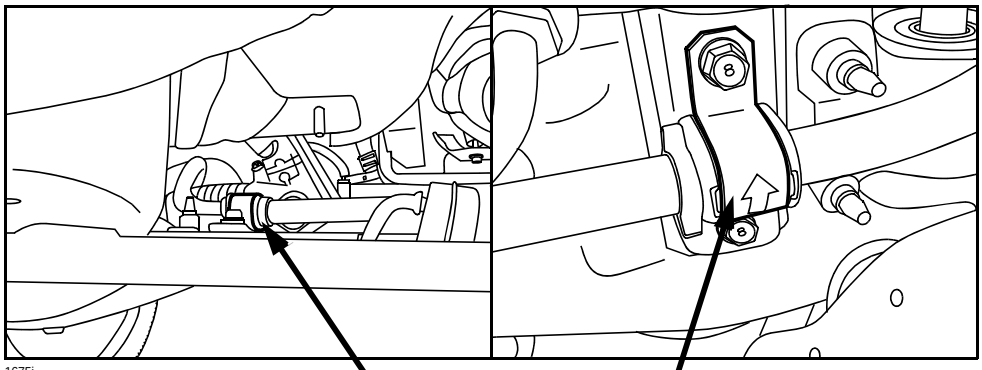
   NOTE: Do one side at a time, otherwise the stabilizer bar could shift out of position and make the repair more difficult.

2. Reach in through the access area just behind and in front of the cross-member and locate the front stabilizer bar bushings.



1675i

AREA TO GAIN ACCESS

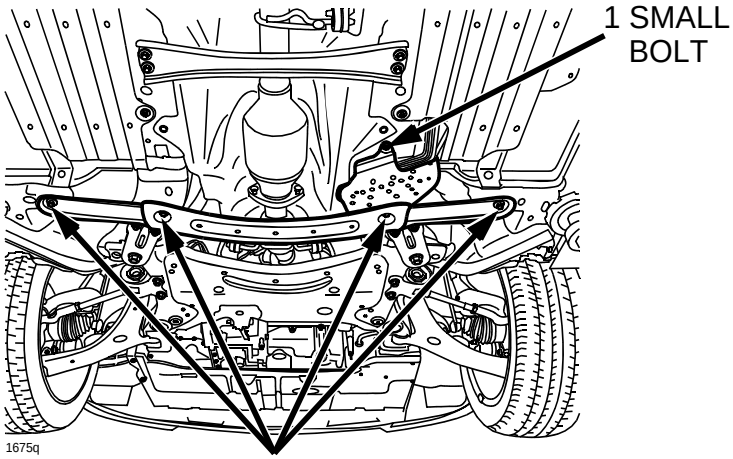


1675j

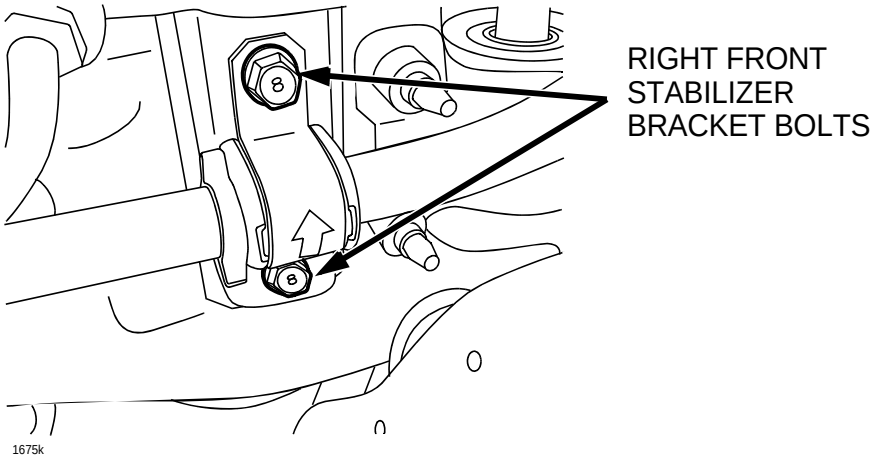
LEFT STABILIZER BUSHING & BRACKET

RIGHT STABILIZER BUSHING & BRACKET

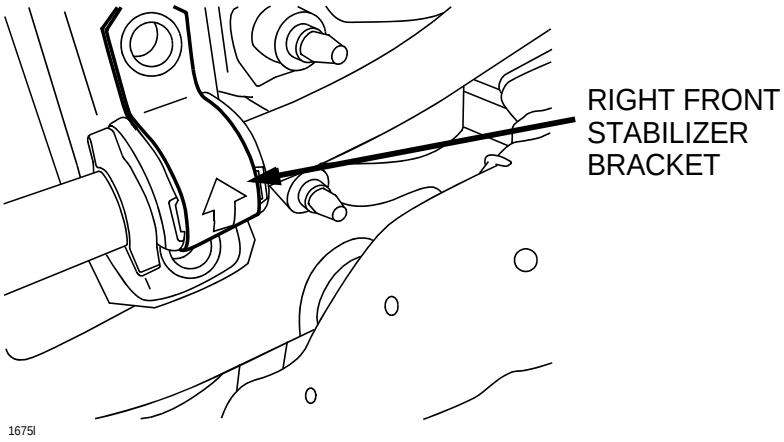
3. Remove the transverse member to make access easier to the left and right stabilizer bar brackets and bolts.



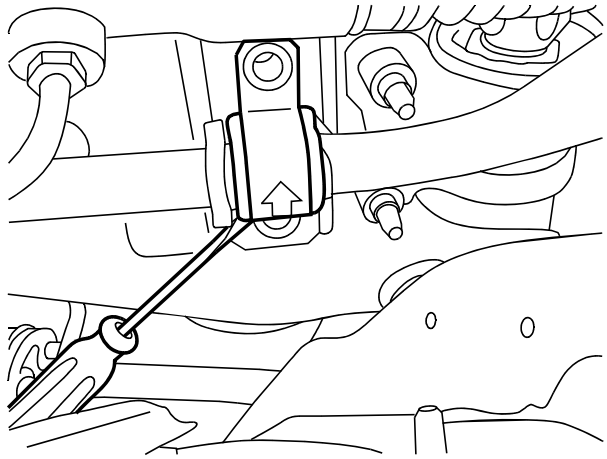
4. Remove the two bolts for the right front stabilizer bracket and loosen the two bolts on the left front stabilizer bracket.



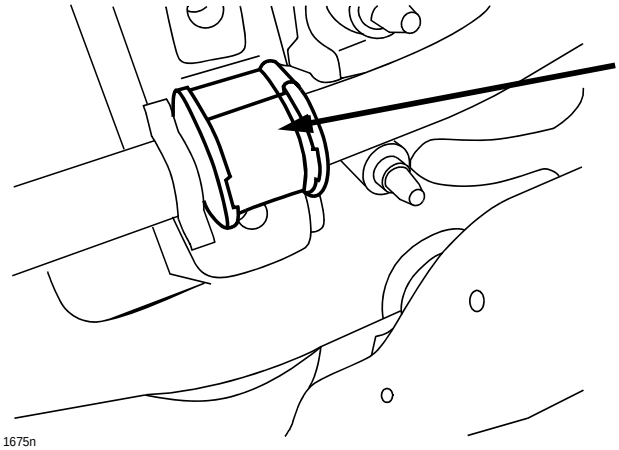
5. Remove the right front stabilizer bracket.



NOTE: It may be necessary to use a screwdriver to pry the bracket off.

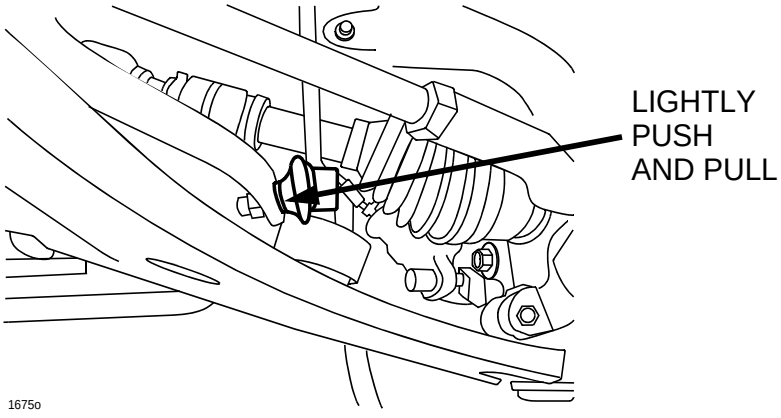

1675m

6. Remove the right front stabilizer bushing.



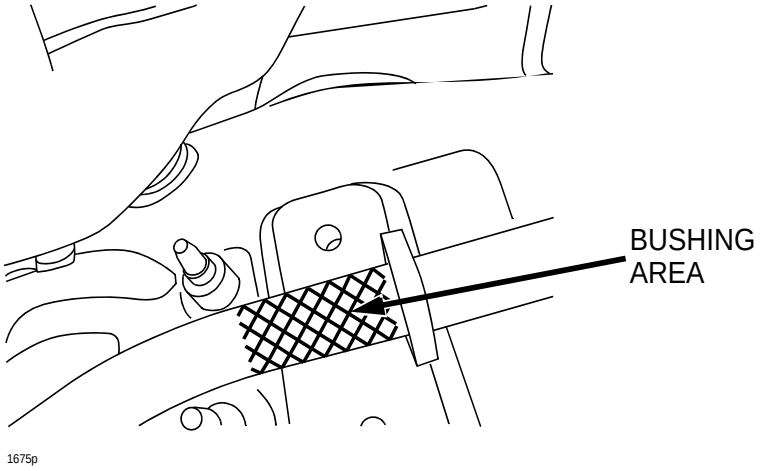
1675n

NOTE: It may be necessary to lightly push or pull on the side of the stabilizer bar where it meets the stabilizer control link to allow clearance.

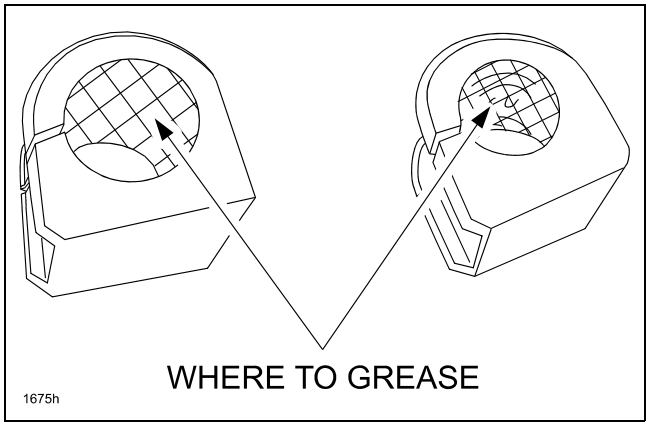


1675o

7. Clean the area on the stabilizer bar where the bushing goes.



8. Apply a light coating of locally sourced white lithium-soap based grease to the inner cylindrical surface of the new front bushings.



9. Install the new right front bushing.
10. Install the right front stabilizer bracket.
11. Align and install the bolts for the right front stabilizer bracket, but do not tighten.

    NOTE: It may be necessary to lightly push or pull on the side of the stabilizer bar where it meets the stabilizer control links to allow clearance.

12. Repeat steps 4-11 for the left front bushing, then tighten the bolts for both stabilizer brackets.
    Tightening torque: 40.3 - 53.9 Nm (29.8 - 39.7 ft-lbf)
13. Install the transverse member (if removed) and install the bolts.
    Tightening torque: four larger bolts to 36.3 - 53.9 Nm (26.8 - 39.7 ft-lbf) and one smaller bolt to 7.8 - 10.8 Nm (70-95 in-lbf)

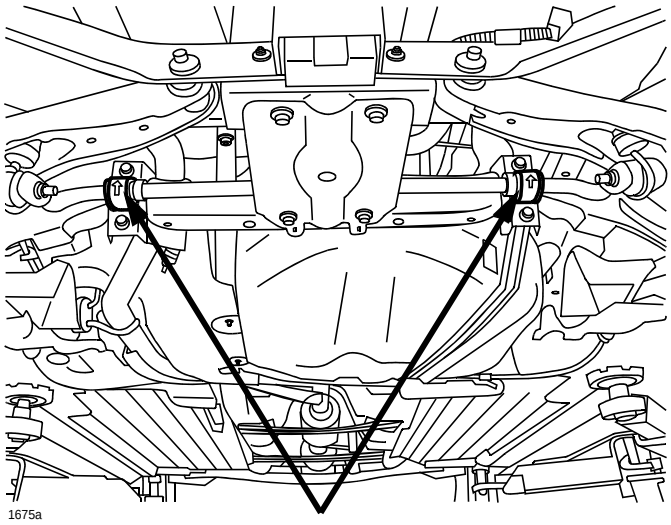
REAR STABILIZER BUSHINGS (FOR SQUEAK)

1. Raise the vehicle in the air.

   WARNING: Before working on the vehicle, make sure the vehicle's engine and exhaust are cooled down.

   NOTE: Do one side at a time, otherwise the stabilizer bar could shift out of position and make the repair more difficult.

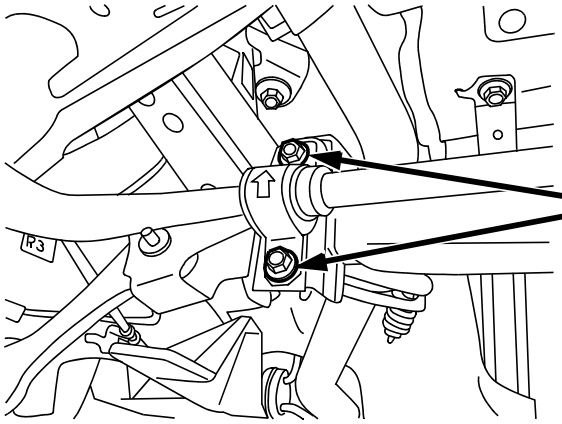
2. Locate the rear stabilizer bar bushings.



1675a

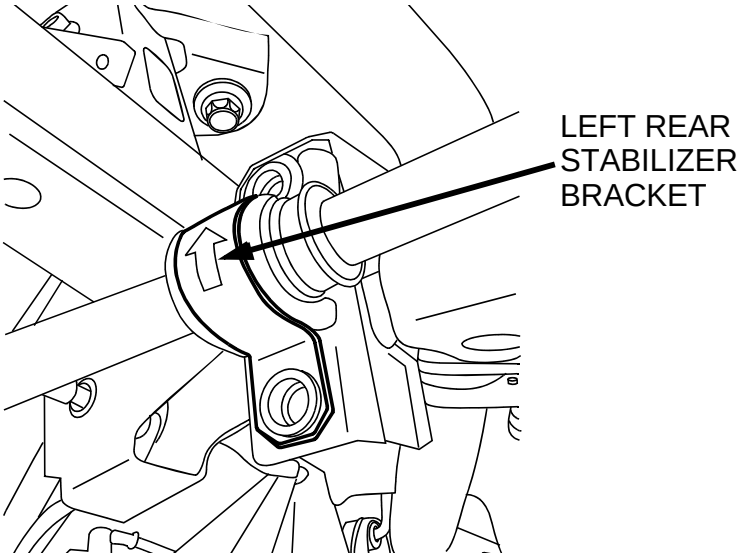
REAR STABILIZER BAR
BRACKETS AND BUSHINGS

3. Remove the two bolts for the left rear stabilizer bracket.

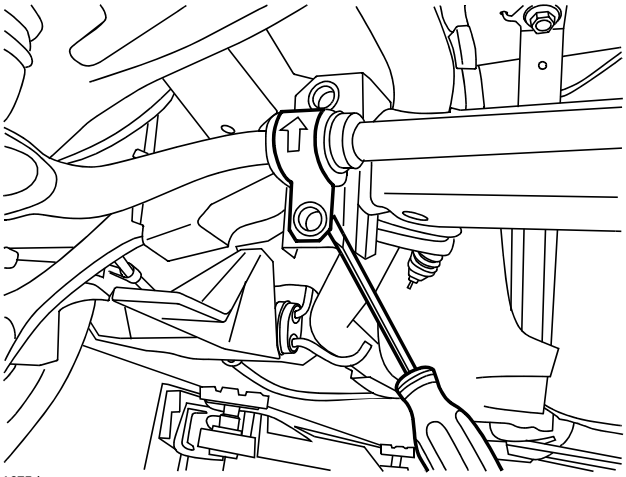


1675b

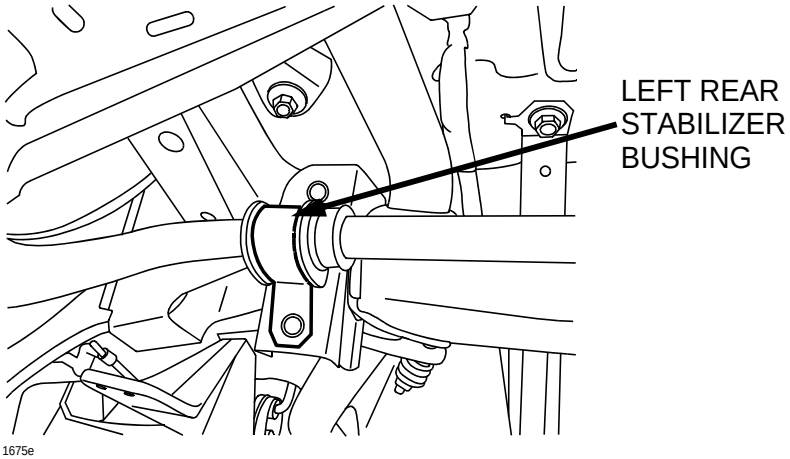
4. Remove the left rear stabilizer bracket.



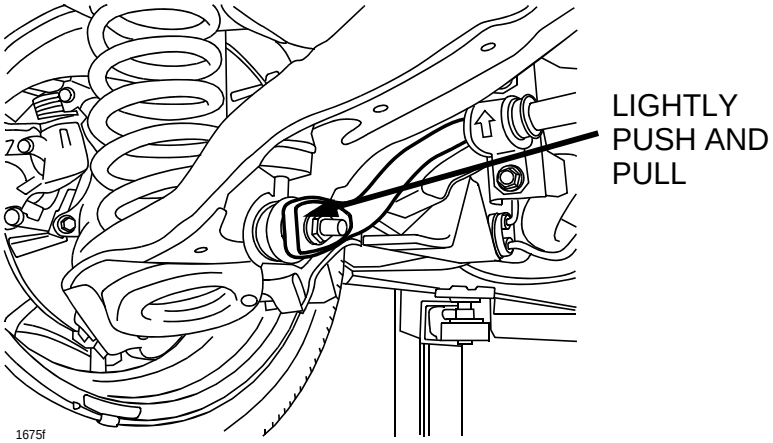
NOTE: It may be necessary to use a screwdriver to pry the bracket off.



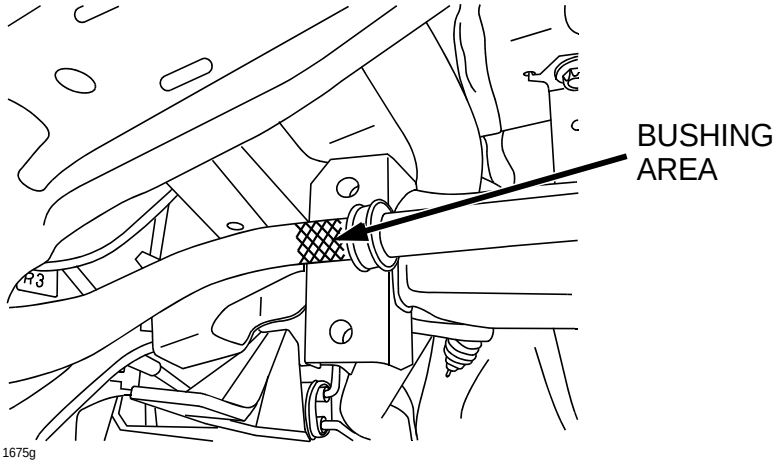
5. Remove the left rear stabilizer bushing.



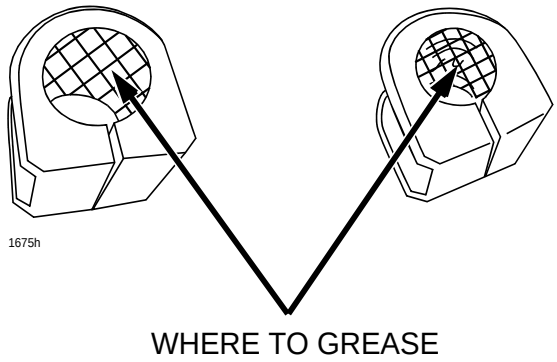
NOTE: It may be necessary to lightly push or pull on the side of the stabilizer bar where it meets the stabilizer control links to allow clearance.



6. Clean the area on the stabilizer bar where the bushing goes.



7. Apply a light coating of locally sourced white lithium-soap based grease to the inner cylindrical surface of the new rear bushings.



8. Install the new left rear bushing.
9. Install the left rear stabilizer bracket.

10. Align and install the bolts for the left rear stabilizer bracket.
    Tightening torque: 40.3 - 53.9 Nm (29.8 - 39.7 ft-lbf)

    NOTE: It may be necessary to lightly push or pull on the side of the stabilizer bar where it meets the stabilizer control links to allow clearance.

11. Repeat steps 3-10 for the right side.

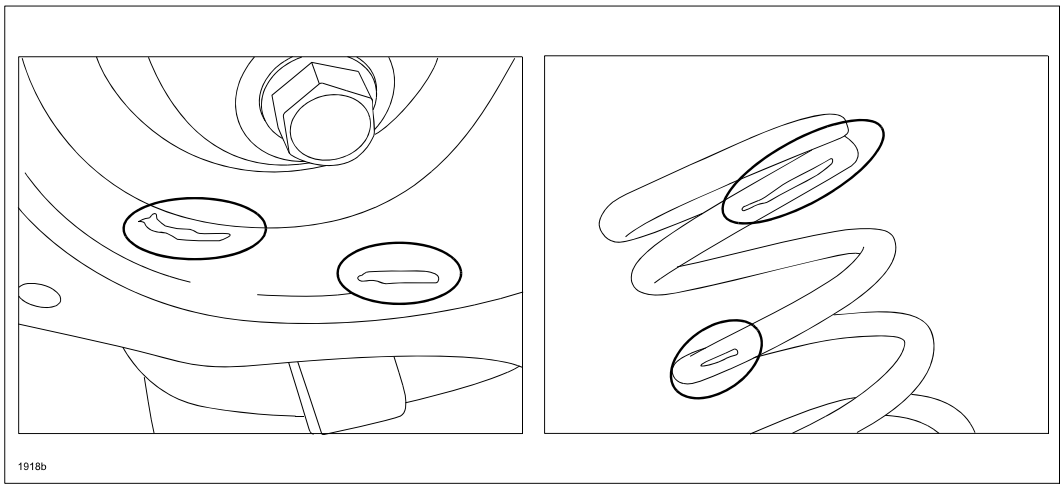
ARC-WELDING BEAD ON REAR CROSSMEMBER (FOR KNOCK OR RATTLE/CHATTER)

1. Raise the vehicle in the air.

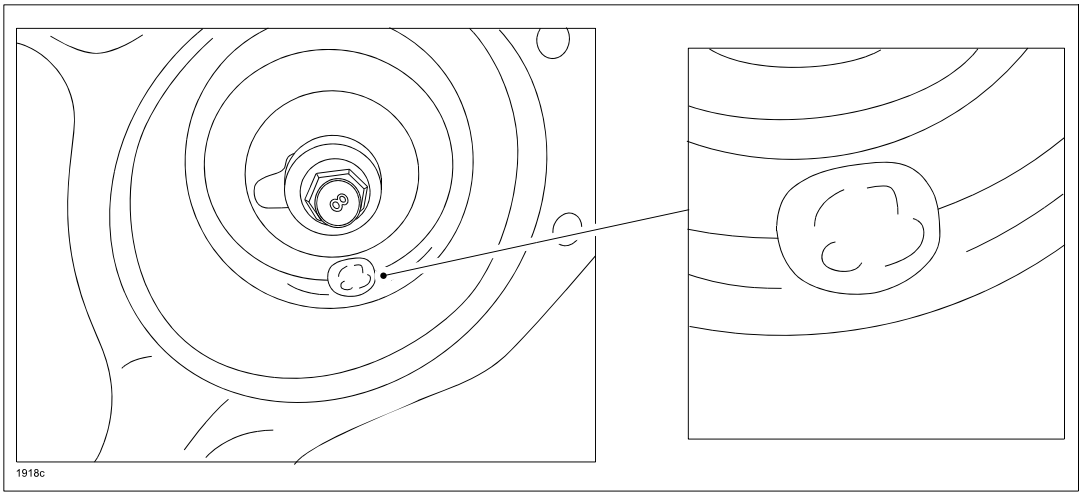
   WARNING: Before working on the vehicle, make sure the vehicle's engine and exhaust are cooled down.

2. Remove the right rear coil spring according to the instructions online on MS3 or the Workshop Manual section 06-12 REAR COIL SPRING REMOVAL/INSTALLATION.

   NOTE: There should be paint worn away on both the spring and the crossmember as shown.



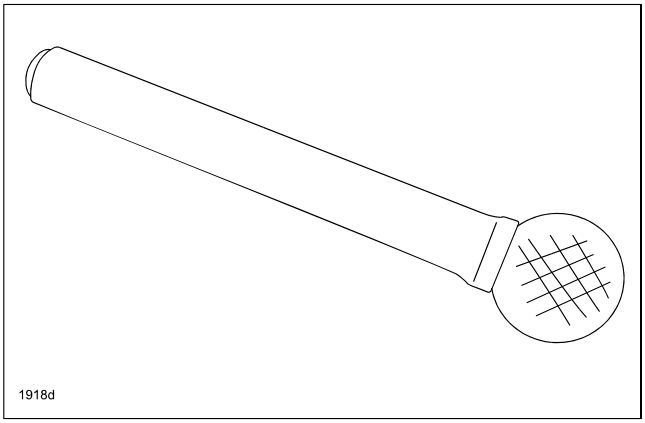
3. Examine the crossmember to see if the arc-welding bead on the crossmember is excessive.



4. Using a grinder or similar tool, grind off the protruding arc-welding bead until the height of the bead is less than 2 mm.

   CAUTION: Use protective eyewear when grinding as metal particles will be coming off.

   NOTE:
   - Do not grind off too much of the arc-welding bead.
   - For best grinding results, use a 1/2 inch diameter carbide rotary file (or equivalent) at the proper tool RPM. This tool is locally sourced and greatly reduces the grinding time.



5. Apply touch up anti-rust paint to all exposed areas on the spring and crossmember.
6. Install the right rear coil spring with a new spring seat rubber according to the instructions online on MS3 or the Workshop Manual section 06-12 REAR COIL SPRING REMOVAL/INSTALLATION.

PART(S) INFORMATION

Part Number	Description	Qty.
B32H-34-300D	Lower Arm Assembly (R)	1
B32H-34-350D	Lower Arm Assembly (L)	1
CC29-34-156B	Front Stabilizer Bushings	2
C243-28-156C	Rear Stabilizer Bushings	2
BP4K-28-012A	Spring Seat Rubber	1

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair. Refer to the Warranty Wizard for warranty term information.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	82
Damage Code	9B
Part Number Main Cause	SEE PART(S) INFORMATION
Quantity	1 or 2
Operation Number / Labor Hours:	XXB262R1 / 1.6 Hrs (One control arm) XXB262R2 / 2.1 Hrs (Both control arms) XXB427R1 / 0.5 Hrs (Front stabilizer bushings) XXB427R2 / 0.3 Hrs (Rear stabilizer bushings) XXB427R3 / 0.6 Hrs (Front and rear stabilizer bushings) XXC0EXRX / 1.2 Hrs (Grind arc-welding bead)

NOTE: A single claim should be submitted for all labor operations required.