



NUMBER: 17-005-14

GROUP: Rear Suspension

DATE: August 16, 2014

This bulletin is supplied as technical information only and is not an authorization for repair. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, or otherwise, without written permission of Chrysler Group LLC.

SUBJECT:

Rear End Squeak/Creak Noise

OVERVIEW:

This bulletin involves replacing the rear suspension shackle bushings.

MODELS:

2014 (VF) Pro Master

NOTE: This bulletin applies to vehicles built on or before December 5, 2013 (MDH 1205XX).

SYMPTOM/CONDITION:

Rear End Squeak/Creak Noise

DIAGNOSIS:

If the customer describes the symptom, perform the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
4	68236665AA	BUSHING, Spring, Upper
4	68095781AA	BOLT, Hex Head, M16X1.50X142.00
4	68095785AA	NUT, Hex Flange, M16x1.50
4	68236856AA	SPACER, Spring Shackle
1(AR)	05066440AA	Soft Top Zipper Cleaner And Lubricant (or equivalent)
1(AR)	04318039AC	Rust Penetrant (or equivalent)

NOTE: Each Zipper Lubricant will service approximately 15 vehicles (Shop Supply, Not on Claim). May substitute soapy water.

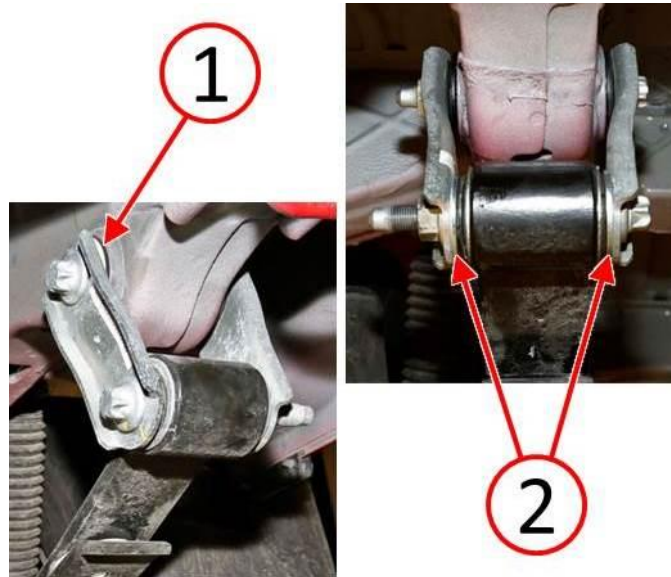
NOTE: Each Rust Penetrant will service approximately 20 vehicles (Shop Supply, Not on Claim). May substitute equivalent product.

SPECIAL TOOLS/EQUIPMENT REQUIRED:

C-4212F	Press, Ball Joint
8859-3	Installer, Ball Joint
9356-2	Remover

REPAIR PROCEDURE:

1. Inspect the rear spring shackle bushings. Early design has white plastic bushing (1) visible at upper spring shackle bushing and NO metal washers (2) at lower spring shackle bushing. Later design NO white plastic bushing (1) visible at upper spring shackle bushing and does have metal washers (2) visible at lower spring shackle bushing (Fig. 1)
 - a. Early Design >>> YES white plastic bushings (1) and NO washers (2) (Fig. 1). Proceed to [Step #2](#).
 - b. Later Design >>> NO white plastic bushings (1) and YES washers (2) (Fig. 1). This bulletin does not apply. Further diagnosis is required.

**Fig. 1 Bushing Type Identification**

- 1 - White Plastic Upper Spring Shackle Bushing.
 2 - Metal Washers Lower Spring Shackle Bushing.

-
2. Confirm that the replacement parts are of the NEW bushing design consisting of bushings (1) and washers (2). Do not use the previous design bushings that consist of center spacer (3) white plastic sleeve (5) and bushing (4) (Fig. 2).

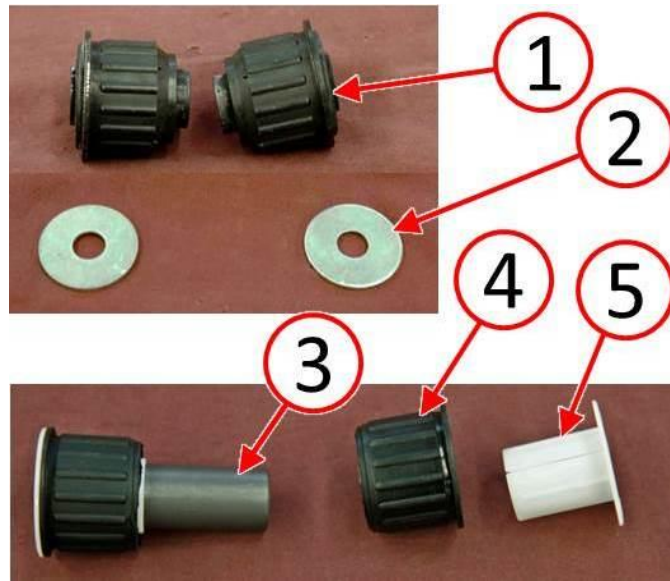


Fig. 2 Replacement Bushing Identification

- 1 - Bushing - New Design
- 2 - Washer - New Design
- 3 - Center Spacer - Previous Design
- 4 - Bushing - Previous Design
- 5 - White Plastic Sleeve - Previous Design

NOTE: Before proceeding, Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info> 17 - Rear Suspension> Warning.

- 3. Raise and support the vehicle. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info> 04 - Vehicle Quick Reference> Hoisting> Standard Procedure.
- 4. Support the rear axle (2) with an appropriate stand (1) to remove tension from the spring shackle before removing the spring shackle ([Fig. 3](#)).

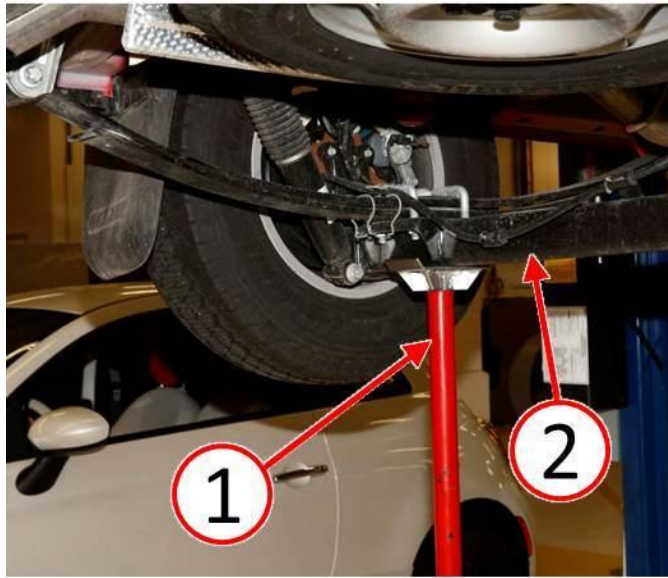


Fig. 3 Support Axle

1 - Support Stand

2 - Rear Axle

-
5. For adequate bushing access, lower the spare tire, disconnect the three rear most exhaust hangers (1), and remove the spare tire heat shield (2) (Fig. 4).

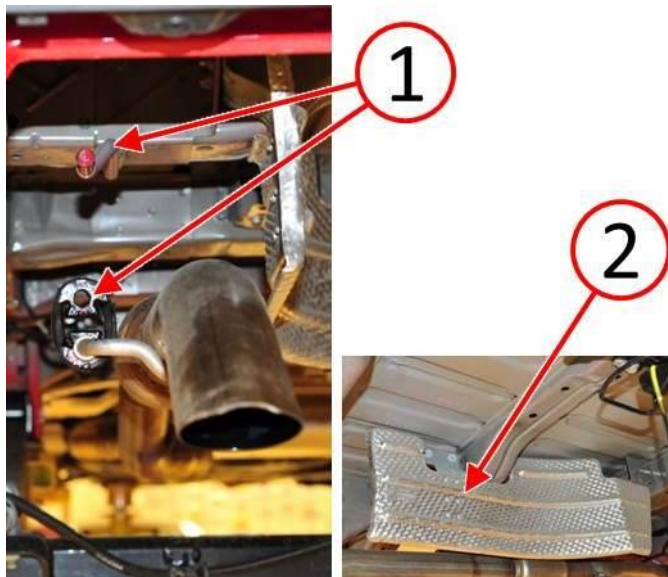


Fig. 4 Bushing Access

1 - Exhaust Hanger

2 - Heat Shield

6. Remove the spring shackle nuts (1), bolts (2), and shackles (3) ([Fig. 5](#))

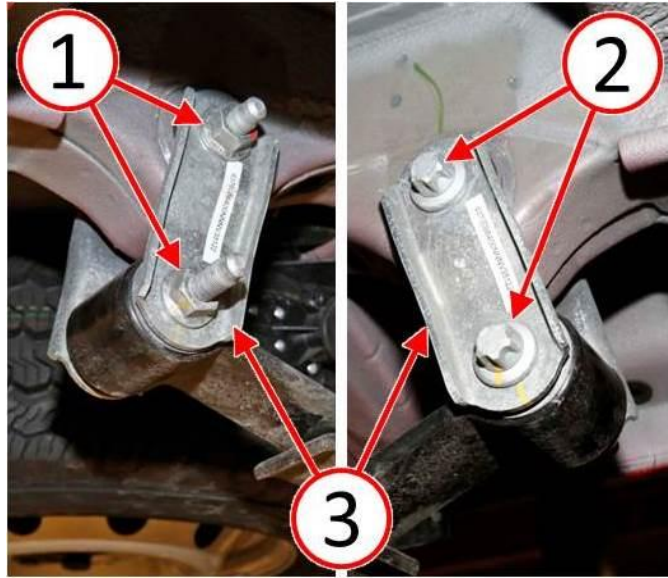


Fig. 5 Remove Spring Shackle

- 1 - Nuts
- 2 - Bolts
- 3 - Shackles

-
7. Remove the bushing spacer (1), and white plastic sleeves (2) from both shackle bushings (3) ([Fig. 6](#))

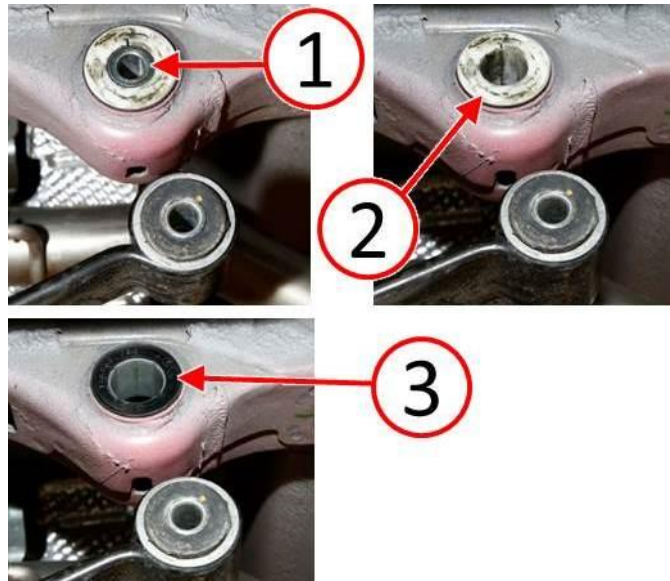


Fig. 6 Remove Bushing Spacer And Sleeve

- 1 - Bushing Spacer
- 2 - White Plastic Sleeve
- 3 - Shackle Bushing

-
8. Spray Mopar Rust Penetrant or equivalent lubricant into the space between the two upper shackle bushings to assist in bushing removal (Fig. 7).



Fig. 7 Lubricate Bushing

- 1 - Mopar Rust Penetrant
-

9. Using a socket (2) that fits as closely as possible the inside diameter of the bushing (1), and a long handled wrench. Insert the socket into the bushing then tilt and rock the bushing back and fourth using the wrench handle as leverage. The penetrating lubricant will assist in bushing removal allowing the bushing to walk out easily with the rocking motion (Fig. 8).

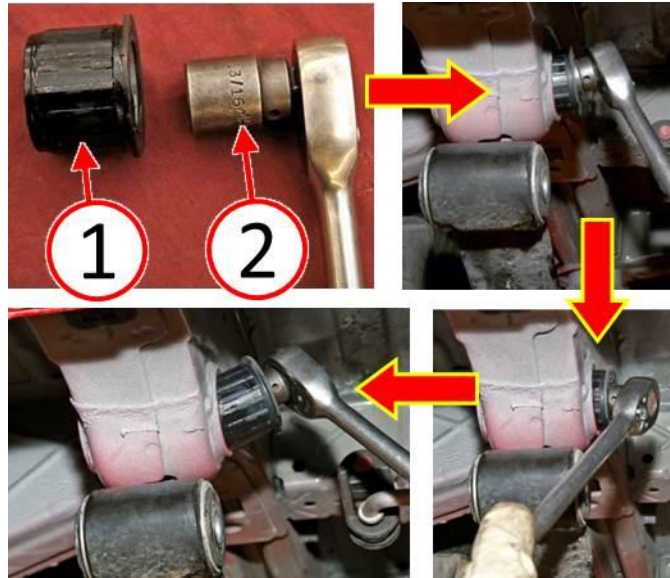


Fig. 8 Remove Bushing

- 1 - Bushing
2 - Socket

-
10. Clean all penetrating lubricant from the bushing bore. Inspect the bushing bore and remove any corrosion or burrs from the bushing bore.

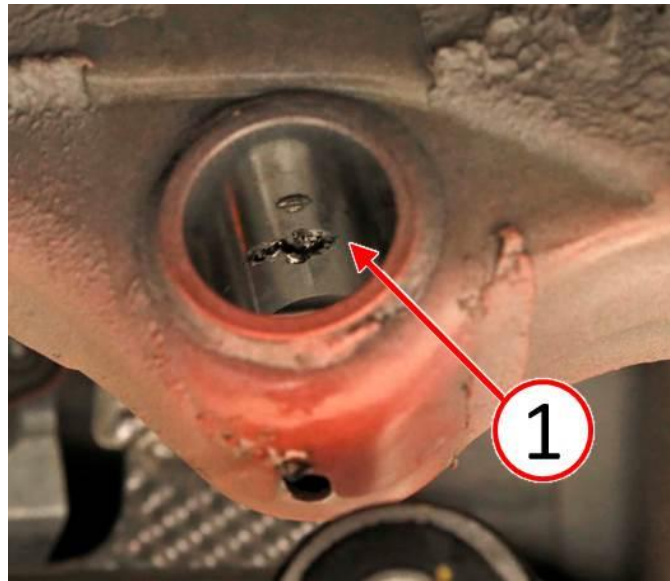


Fig. 9 Inspect Bushing Bore

1 - Bushing Bore

-
11. Lubricate the NEW bushings (1) with Mopar Zipper Lubricant or soapy water ([Fig. 10](#)).
 12. Insert the first bushing (2) into the outer side of the frame (facing toward the outside of the vehicle) ([Fig. 10](#)).



Fig. 10 Install Bushing

1 - Lubricate Bushing
2 - Insert Outer Bushing

13. Press the bushing (2) into the frame, using the Press C-4212F (4) with Installer 8859-3 (1) installed on fixed end and Remover 9356-2 (3) installed on threaded end with the flat side of Remover (3) facing toward the clamping surface as shown in (Fig. 11).

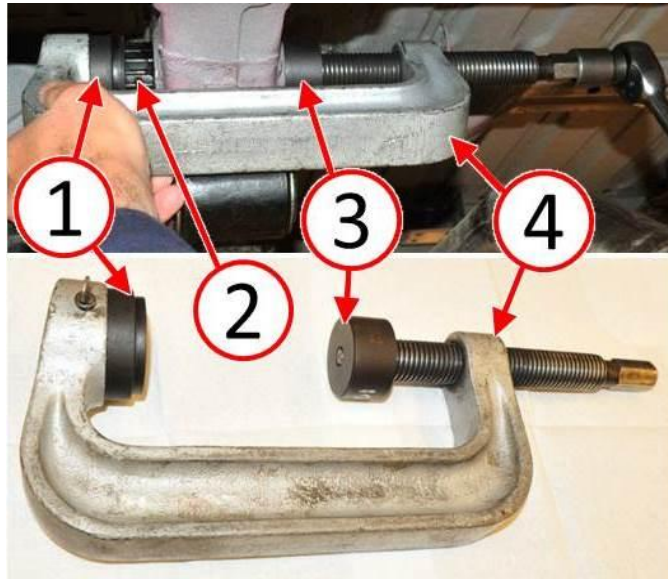


Fig. 11 Press In Outer Bushing

- 1 - 8859-3 Installer
- 2 - Bushing
- 3 - 9356-2 Remover
- 4 - C-4212F Press

-
14. Insert the second bushing (2) into the inner side of the frame (facing toward the center of the vehicle) (Fig. 12).
15. Press the bushing (2) into the frame, using the Press C-4212F (4) with Installer 8859-3 (1) installed on fixed end and Remover 9356-2 (3) installed on threaded end with the cupped side of Remover (3) facing toward the clamping surface as shown in (Fig. 12).



Fig. 12 Press In Inner Bushing

- 1 - 8859-3 Installer
- 2 - Bushing
- 3 - 9356-2 Remover
- 4 - C-4212F Press

16. Ensure that both bushings (1) are fully seated into the vehicle frame with no visible gap between the bushing flange and the vehicle frame ([Fig. 13](#)).

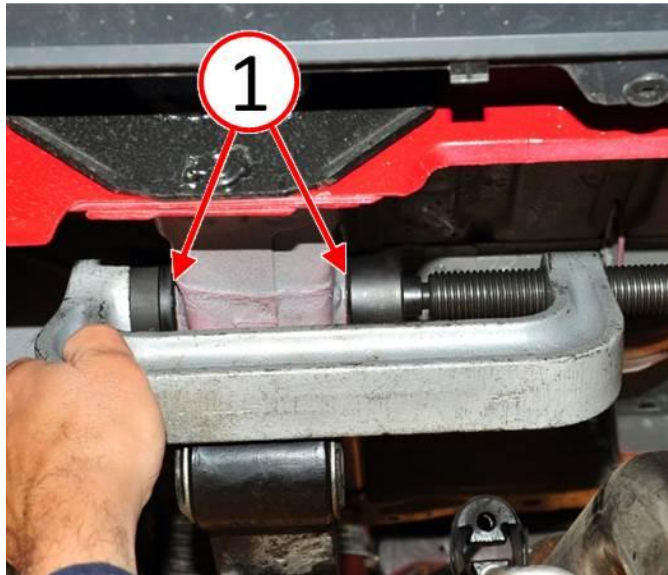


Fig. 13 Ensure Bushings Are Fully Seated

- 1 - Bushings
-

17. Assemble the NEW shackle bolts (2,3) to the shackle plate (1) as shown in (Fig. 14).

NOTE: Flared-outward (wide) end of the shackle plate (1) MUST point up toward the vehicle frame and flared-inward (narrow) end of the shackle plate (1) MUST point down toward the spring as shown in (Fig. 14).

18. Install the NEW spacer washer (4) onto the lower shackle bolt (3) as shown in (Fig. 14).

NOTE: Shackle bolt ends MUST point toward outside of vehicle and bolt heads MUST face toward center of vehicle.

19. Install the shackle assembly to the vehicle while ensuring that the spacer washer (4) is positioned between the lower end of the shackle plate (1) and the suspension spring as shown in (Fig. 14).

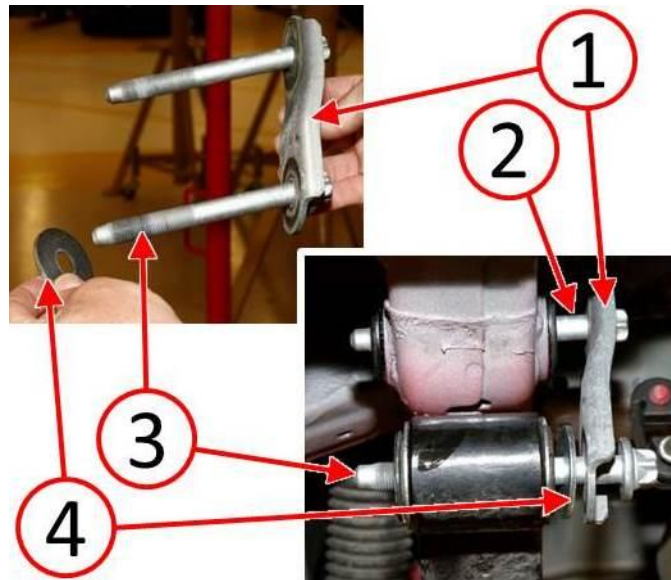


Fig. 14 Assemble Inner Shackle Half

- 1 - Shackle Plate
- 2 - Upper Bolt
- 3 - Lower Bolt
- 4 - Spacer Washer

20. Install the NEW spacer washer (1) onto the lower shackle bolt (2) as shown in (Fig. 15).

21. Install the shackle plate (1) onto the shackle bolts with flared-outward end pointing up and flared-inward end pointing down as shown in (Fig. 15).

NOTE: Ensure both spacer washers (4) are positioned between the shackle plates (5) and suspension spring as shown in (Fig. 15).

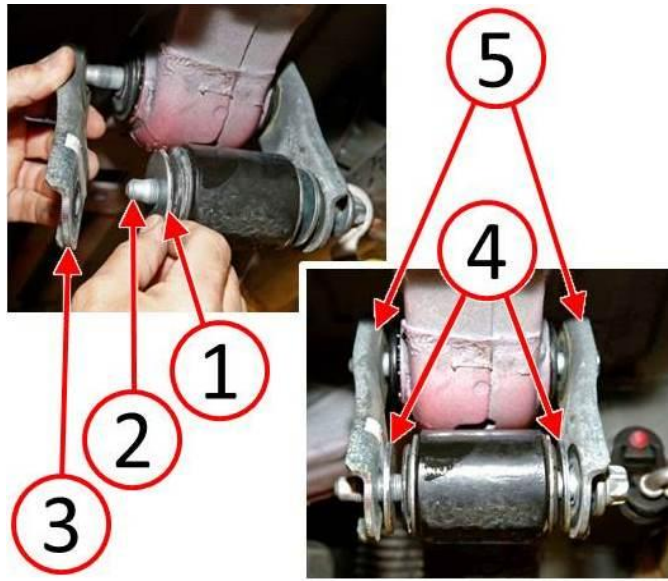


Fig. 15 Assemble Outer Shackle Half

- 1 - Spacer Washer
- 2 - Lower Bolt
- 3 - Shackle Plate
- 4 - Spacer Washers
- 5 - Shackle Plates

NOTE: Vehicle must be resting at curb height before tightening the shackle fasteners.

22. Install the NEW shackle nuts (1) onto the shackle bolts (3) but do not tighten until the vehicle is resting at curb height (Fig. 16).
23. Inspect all shackle components for proper assembly:
 - Shackle nuts (1) face toward outside of vehicle (Fig. 16).
 - Shackle bolt heads (3) face toward center of vehicle (Fig. 16).
 - Shackle plates (4) flared-outward (wide) end MUST point up toward the vehicle frame (2) and flared-inward (narrow) end MUST point down toward the spring (5) (Fig. 16).
24. Install the spare tire heat shield, exhaust hangers, and spare tire removed earlier for bushing access.
25. Lower the vehicle.
26. With vehicle resting at curb height, torque the shackle fasteners (1,3) to 195 N·m (144 ft. lbs.) (Fig. 16).

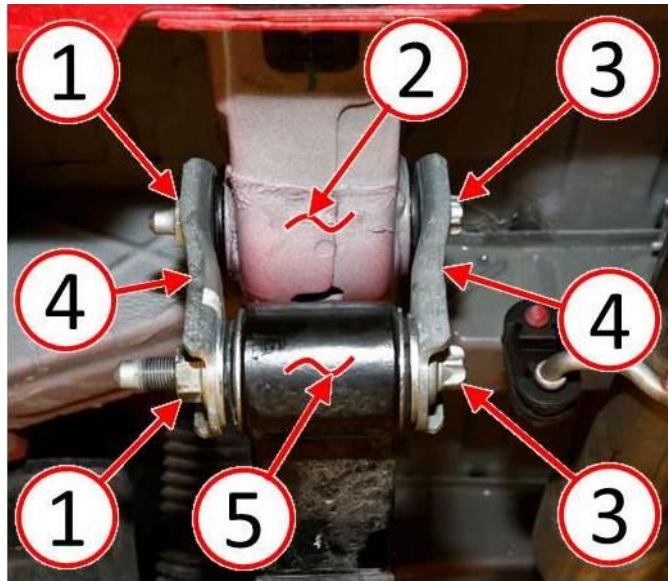


Fig. 16 Shackle Assembly

- 1 - Shackle Nuts
- 2 - Vehicle Frame
- 3 - Shackle Bolts
- 4 - Shackle Plates
- 5 - Suspension Spring

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Skill Category	Amount
02-30-20-90	Inspect Shackle Bushings (1 - Semi-Skilled)	4 - Chassis Systems	0.2 Hrs.
02-30-20-91	Inspect And Replace Shackle Bushings (1 - Semi-Skilled)	4 - Chassis Systems	0.9 Hrs.

FAILURE CODE:

ZZ	Service Action
----	----------------