PI0783, Frame Flange Contacting Suspension Crossmember

(April 2012)

Information

Certain MACK GU model chassis built from 09/15/2008 to 12/31/2011 equipped with 105 mm flange frame rails and SS52 suspension crossmember, may have contact issues between the frame flange and cross member. This contact can cause a side loading condition to the frame. To repair this issue complete the following procedure.

Note: Information is subject to change without notice.
Illustrations are used for reference only, and may differ slightly from the actual engine version. However, key components addressed in this information are represented as accurately as possible.

Required Parts

Quantity	Part Number	Description
1	4MR3431M	Tranverse Torque Rod Relief Template
1	4MR3431M4	Trunnion Relief Cutout Template

Procedure

You must read and understand the precautions and guidelines in Service Information Group 70, “General Safety Practices, Frame, Springs and Wheels” before performing this procedure. If you are not properly trained and certified in this procedure, ask your supervisor for training before you perform it.

Rear Suspension, Remove

1 Secure the vehicle for service by parking it on a flat level surface, applying the parking brake, chocking the rear wheel, and placing the transmission in neutral.

2 Disconnect all cables from the negative (ground) and positive battery terminals to prevent personal injury from electrical shock and prevent damage to electrical components.

3 Cage all four parking brake chambers.

Note: Caging the parking brakes allows the suspension and axles to roll freely.

4 Mark the center of the trunnion in relation to the frame rail.

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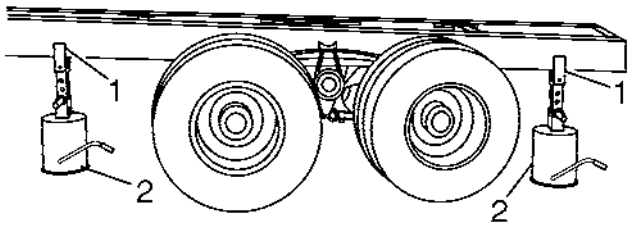

W7001186

1 – Frame Rail Guide Support
2 – Air Jack Stand

⚠ DANGER

Never work under or around a vehicle unless it is supported on jack stands of adequate rating. Failure to use adequate jack stands can result in the vehicle falling, which can cause serious injury or death to anyone under the vehicle.

Using the proper jack raise the rear section of the frame, just ahead of the front rear axle. Support the chassis with jackstands. The frame should be raised high enough to take the weight off the suspension and allow the suspension to slide within the framerail.

6 Remove the drive shaft at the front differential.

7 Remove the air hoses located at each brake chamber or at the frame junctions located in frame depending on setup.

Note: Mark and note the position of each air hose for future reference.

8 Remove the airline to the front power divider and or rear inter-axle locks.

9 Disconnect the ABS sensors located within the chassis. Cut cable ties as needed.

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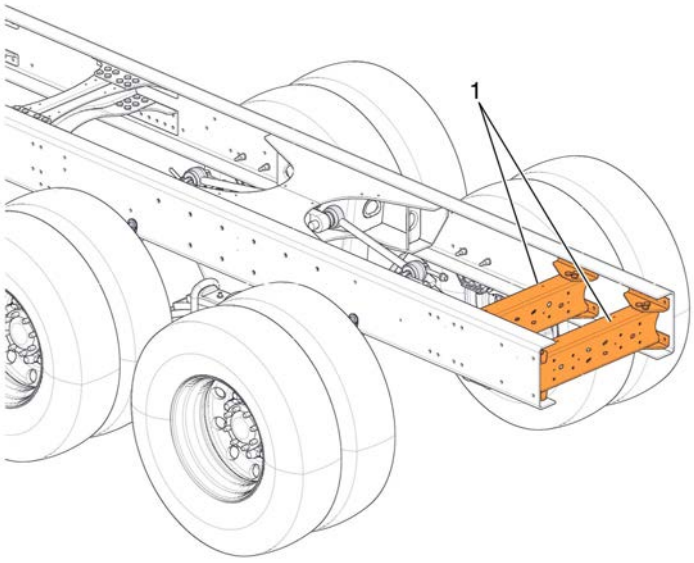

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1 – Rear Crossmembers

Remove the huck fasteners from the cross-member just past the rear axle. Slide the cross-member rearward.

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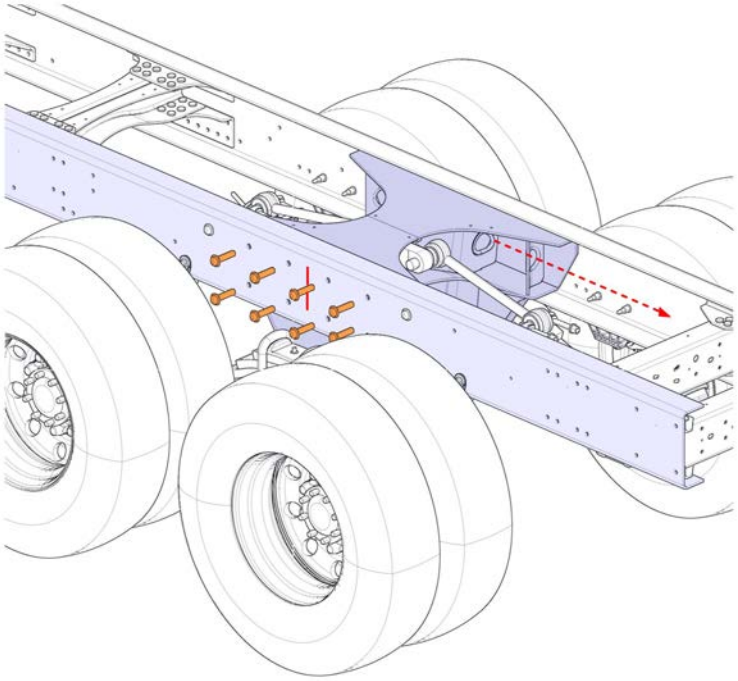

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Remove the huck fasteners from both sides of the trunnion suspension (8 on each side).

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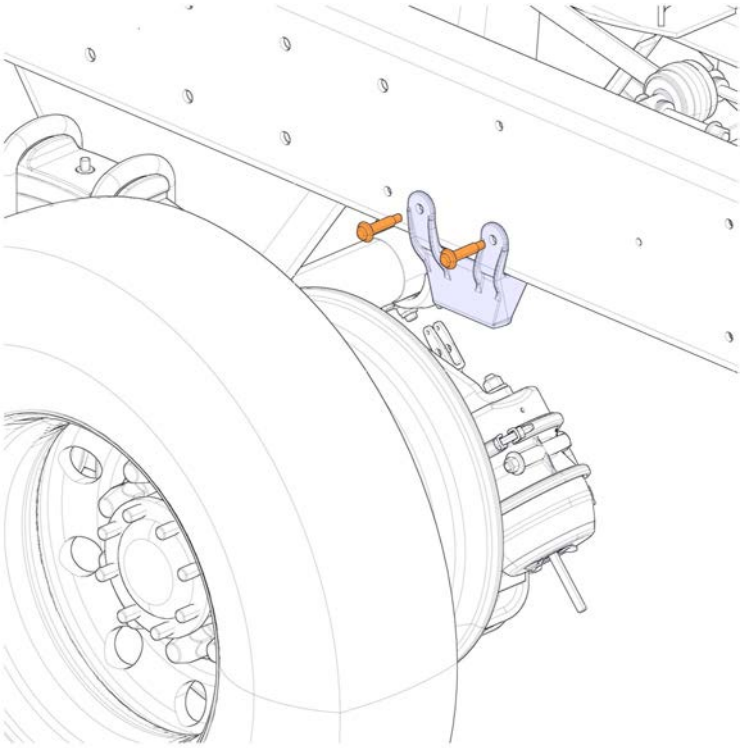

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Remove the rear axle bump stops from the chassis on each side.

Note: Rear axle only.

13 Remove the lateral torque rods from the chassis mounting (If applicable).

14 Spread the rear of the chassis open with a porta-power or similar tool.

Note: Spread the chassis just enough to allow the suspension freedom to roll rearward.

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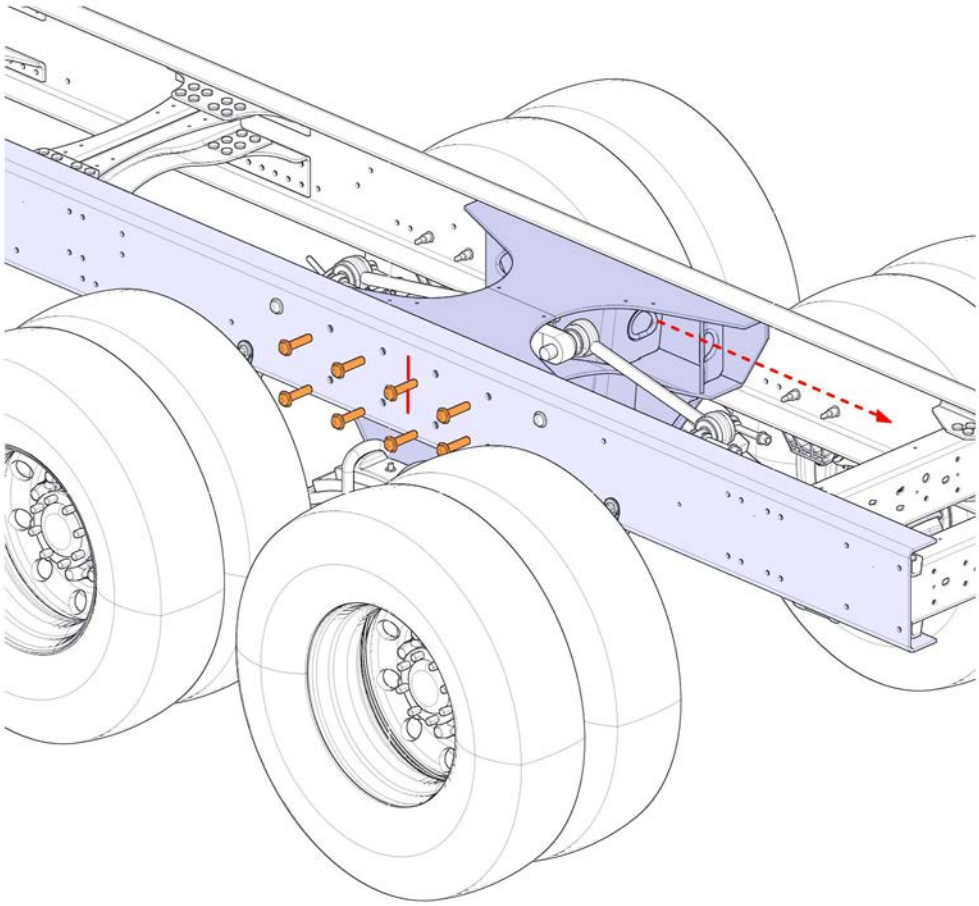


W7072615

Roll the suspension rearward until the proper area of frame is exposed enough to allow the cut/s to be made.

Note: If necessary adjust the height of the jacks or remove further items along the rail which block the path of the trunnion.

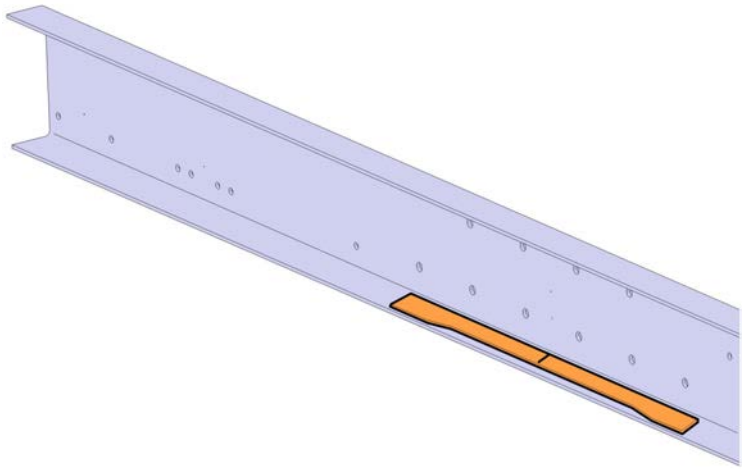
Note: Some vehicles use both templates, depending on whether the vehicle is equipped with lateral torque rods.

Frame Rail Modification (Long Cut)

1 Install the long template onto the chassis area of the lower frame flange.

2 Mark the center of the template.

3



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Align the template with the trunnion center marked in step 4 during the removal.

4 Clamp the template in place with vise grips or similar tool.

5 Cut the frame rail using a plasma cutter.

6 Remove the template and chip slag from the edge.

7 Using a grinder or portable belt sander, dress and clean the open notch in the frame rail.

Note: Grind the open notch smooth so that there are no sharp or jagged edges. Grind horizontally (parallel) to the frame edge so as not to leave vertical marks on the flange.

Note: Dress the top and bottom edges of the cut to leave a smooth radius.

Note: Paint the exposed bare metal of the frame with approved chassis paint.

8 Perform the same task for the lower flange on the other frame rail.

Frame Rail Modification (Short Cut)

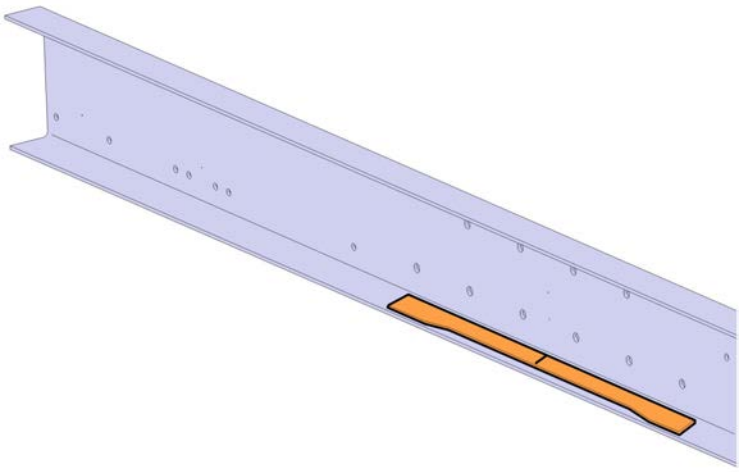
Note: Perform this procedure only if the lateral torque rods are present and interfere with the lower flange of the frame.

1 Install the short template onto the frame where the rear stabilizer rod meets the frame.

2 Mark the center of the torque rod mounting.

3 Center the template onto the area to be cut on the lower frame flange.

4



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Align the template on the frame as shown in the illustration.

5 Clamp the template in place with vise grips or similar tool.

6 Cut the frame rail using a plasma cutter.

7 Remove the template and chip slag from the edge.

8 Using a grinder or portable belt sander, dress and clean the open notch in the frame rail.

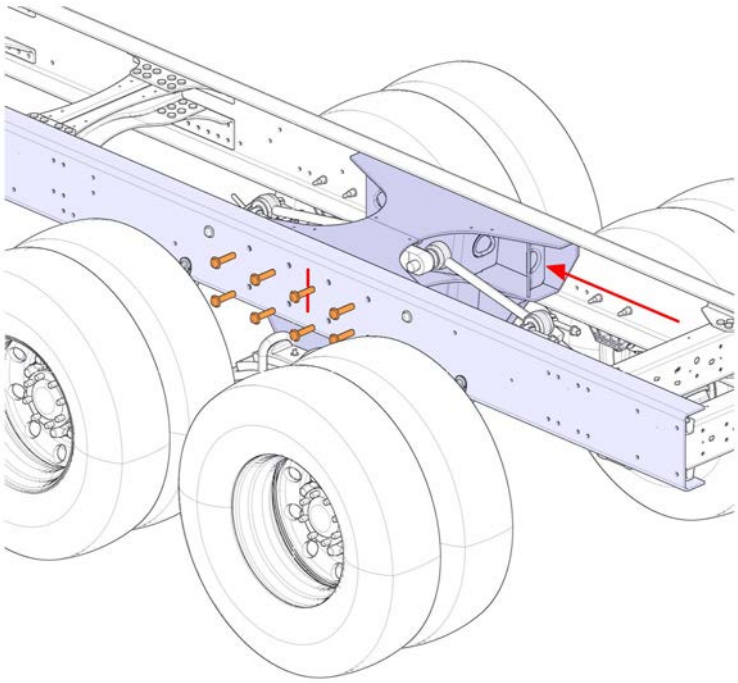
Note: Grind the open notch smooth so that there are no sharp or jagged edges. Grind horizontally (parallel) to the frame edge so as not to leave vertical marks on the flange.

Note: Dress the top and bottom edges of the cut to leave a smooth radius.

Note: Paint the exposed bare metal of the frame with approved chassis paint.

Rear Suspension, Install

1



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Roll the suspension forward until the holes in the frame are once again aligned.

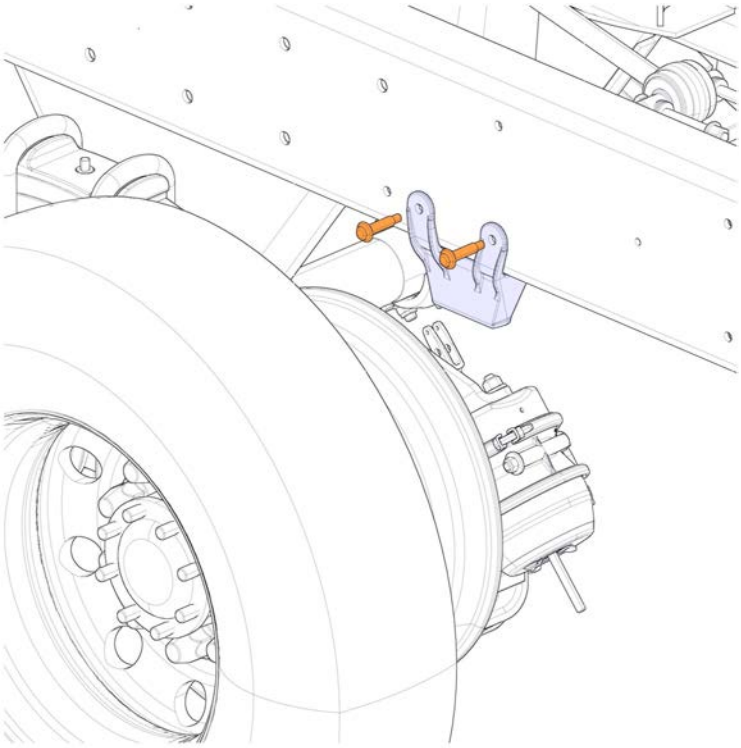
Note: In order to freely roll the suspension forward in the frame, It may be necessary to adjust the height of the jack stands.

Note: To avoid improper alignment, reposition the rear crossmember(s) before bolting the suspension into place.

2 Secure the fasteners for the rear suspension.

3 If applicable, install the lateral torque rods. Torque fasteners to 260 Nm (192 ft-lb).

4



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Install the rear axle bump stops. Torque fasteners to 260 Nm (192 ft-lb).

Note: Install for rear axle only.

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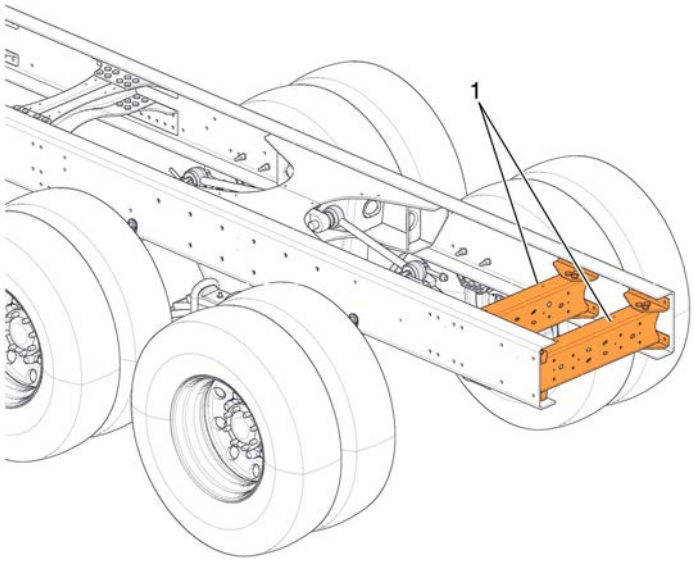

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1 – Rear Crossmembers

Secure the fasteners for the end cross member.

6 Secure the fasteners for the cross member just after the rear axle.

7 Connect the ABS sensors and secure with cable ties as needed.

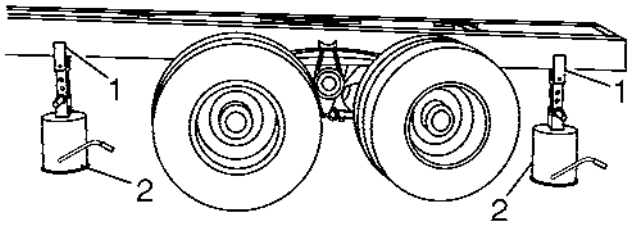
8 Install the air line to the front power divider and/or rear interaxle locks.

9 Install the air hoses previously removed at the brake chambers or frame junctions.

10 Install the driveshaft.

11 Uncage all four parking brake chambers.

12



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1 – Frame Rail Guide Support
2 – Air Jack Stand

Remove any jack stands or jacks used to support the frame.

Note: Any u-bolts or other devices securing the body to the truck should be reinstalled at this time.

13 Unchock the wheels.

14 Reconnect all previously removed cables to the negative (ground) and positive battery terminals.

Reimbursement

This repair is covered by an authorized Service Program. Reimbursement is obtained via the normal claim handling process.	
Claim Type (used only when uploading from the Dealer Bus. Sys.)	B
Recall Status	
Vehicle repaired per instruction	1- Modified per instruction
Labor Code	
Primary Labor Code To complete both carriers	1352G–ZZ–96 8.0 hrs.
Time to take charge and determine campaign status	101AA–0A–00 0.3 hrs.
Causal Part	3188724
Authorization Number	PI0783
Expiration Date	27 April 2013

Note: Take Charge Time is not included in the Labor Code for this operation. Take charge may be eligible but can only be used once per repair visit. If vehicle is having other warranty repairs performed, take charge should be charged to the warranty repair, otherwise take charge can be charged to this service program.