



**Reliability Driven™**

# Service Bulletin No. 407B

<i>MODEL</i>	<b>D Series</b>	<i>TYPE</i>	<b>Field Change Program</b>	<i>SECTION/GROUP</i>	<b>12-Suspension</b>	<i>DATE</i>	<b>June 26, 2014</b>
<i>SUBJECT</i>	<b>GABRIEL SHOCK ABSORBER POLYURETHANE BUSHING</b>						
<i>CONDITIONS</i>							

**THIS BULLETIN SUPERCEDES FIELD SERVICE BULLETIN 407 IN ITS ENTIRETY.**

**FIELD SERVICE BULLETIN 407 WAS REVISED TO REVISION B TO ADD INFORMATION REGARDING THE COMPRESSION OF THE BLACK BUSHING.**

**CUSTOMERS WHO HAVE PARTICIPATED IN FIELD SERVICE BULLETIN 407 ON THEIR COACH, NO FURTHER ACTION IS REQUIRED.**

**CUSTOMERS WHO HAVE NOT PARTICIPATED IN FIELD SERVICE BULLETIN 407, SHOULD PERFORM FIELD SERVICE BULLETIN 407B.**

**Customer Complaint:**

Gabriel Ride Control has notified Motor Coach Industries ( MCI ) that in early 2013 they replaced the red 185 durometer polyurethane bushings with a red 288 polyurethane bushing in the shock absorbers at their production plant. Gabriel advises that these shock absorbers operating in cold temperatures may result in failure of the shock absorber stud breaking at the bushing. If the shock absorber fails, the coach cannot be operated due to the risk of suspension component damage.

**Cause:**

Gabriel reports that the material in the polyurethane bushing will harden and stiffen, increasing resistance in extreme cold temperatures. The stiffer bushing under compression yields greater resistance that could transfer additional force onto the bolt that mounts the shock. In addition, an over-compressed bushing in a sustained cold temperature environment may cause shock absorber stud fracture.

**Corrective Action:**

MCI strongly encourages owners of the D4000, D4005, D4500, D4505 and D4000 ISTV series coaches listed in the table below to replace the front, drive and tag axle shock absorber stud bushings with the Q13 / 2013 date code by implementing the steps in this procedure as soon as possible.

12901 to 12906	12912	12919	12921 to 12960	12963 to 12981
12994 to 13021	13028 to 13032	13038 to 13118	13120 to 13133	13135
13161	13162	13180	13182 to 13213	13215
13221	13242 to 13276			



## Parts

Qty.	New P/N	Description
1	12-05-1321	Kit, Bushing, Gabriel Shock Absorber <i>Kit contents are:</i>
1	19-3-153	Lock nut, 5/8-18 UNF
2	12J-3-104	Washer
2	12-05-1320	Bushing, Shock Absorber

Service Procedure:



**Read this entire procedure before beginning work.**  
**Use Safe Shop Practices At All Times.**



## REFER TO MANUAL

**Refer to Section 3 / Body, in the MCI D Series Maintenance Manual, in conjunction with this procedure for jackstand support placement information.**



**This procedure is to be performed at an ambient temperature of 60 degrees F / 16 degrees C or higher.**

1. Turn the main battery disconnect switch to the OFF position.
2. Using wheel lifts, lift the coach to the desired work height.
3. Position jack stand supports under the coach frame support points.
4. Carefully lower the axle a little to clear the lower shock absorber stud.
5. Visually inspect and record the date code on the front, drive and tag axle shock absorbers ( refer to Figure 1 ).



Figure 1.

## NOTICE

*If the date code on the shock absorber is stamped Q13 and the bushing is red, proceed to the procedure steps below to replace the bushing.*

*If the date code on the shock absorber is stamped Q13 and the bushing is not red, no further action is required. Proceed to the next shock absorber.*

*If the date code on the shock absorber is not stamped Q13, no further action is required regardless of the bushing color. Proceed to the next shock absorber.*

*Upon inspection, if the shock absorber stud is damaged take a digital photo of the fractured stud as well as the shock absorber part number and the date code ( refer to Figure 1 ). Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for further information regarding replacement.*

## DRIVE AXLE SHOCK ABSORBER PROCEDURE

6. Remove and retain the nut from the lower location ( stud end ) of the drive axle shock absorber.
7. Compress the shock absorber upwards.
8. Remove and discard the existing lock nut, washers and red polyurethane bushing from the lower location ( stud end ) of the drive axle shock absorber ( refer to Figure 2 ).



**Figure 2.**

9. Orient and install the new black bushings, p/n 12-05-1320.
10. Install the new washers, p/n 12J-3-104, and lock nut, p/n 19-3-153.
11. Drive the lock nut down until the outer diameter of the bushing extrudes to the same diameter of the washer.

## FRONT AXLE / TAG AXLE SHOCK ABSORBER PROCEDURE

12. Unfasten and remove the hex nut, retaining washers and the existing red polyurethane bushing from both ends ( upper and lower stud end locations ) of the shock absorber. Discard the existing lock nut, washers and red polyurethane bushing ( refer to Figure 2 ).
13. Orient and install the new bushings, p/n 12-05-1320.
14. Re-install the shock absorber with new washers, p/n 12J-3-104 and new lock nut, p/n 19-3-153.
15. Drive the lock nut down until the outer diameter of the bushing extrudes to the same diameter of the washer.

*Procedure Complete.*



Mail or fax the completed limited warranty claim form and verification form to MCI's warranty department, or photocopy and mail to:

MCI Fleet Support  
Attn: Warranty Department  
7001 Universal Coach Drive  
Louisville, KY 40258  
Fax Number 1-800-360-8886

to receive credit for the hours used to complete this task. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for any further information.

***Field Change Program Conditions:***

The parts required for this change will be supplied without charge.

***ONLY ONE (1) CLAIM CAN BE FILED AGAINST THE COACH VIN, SB 407 OR SB 407B.***

A labor allowance of 0.5 hour per one ( 1 ) shock absorber will be granted for the procedure of installing the specified part(s) in this bulletin on D Series coaches.

This labor allowance will be credited to your MCI Fleet Support Parts Account on receipt of the attached "MCI Field Change Program Verification Form" and a "Warranty Claim Form" as detailed in your Owner Warranty manual to MCI's Warranty department. A "MCI Field Change Program Verification Form" needs to be submitted for each VIN affected. Photocopy the attached "MCI Field Change Program Verification Form" as required for the number of affected coaches in your fleet.

This program will end on November 21, 2014.

Motor Coach apologizes for any inconvenience resulting from this campaign, but urges you to implement this change as soon as possible.

Sincerely,

Motor Coach Industries