



Service Bulletin No. 452C

MODEL J4500	TYPE Field Change Program	SECTION/GROUP 12-Suspension	DATE
SUBJECT FRONT SWAY BAR			
CONDITIONS			

THIS BULLETIN SUPERCEDES SERVICE BULLETIN 452B IN ITS ENTIRETY.

Ref. MCI NHTSA Recall No.:17V-207

Ref. MCI Transport Canada Recall No.:2017-584 (formerly 2017-175)

Customer Complaint:

Motor Coach Industries ("MCI") has become aware that a defect which relates to motor vehicle safety exists on the front sway bar used on certain front axles. The potential exists whereas the front sway bar may crack at the bushing / clamp locations.

In the event that the sway bar cracks, it may detach from the coach affecting driving stability and increasing the risk of a crash causing injury and/or damage to property.

Cause:

Fatigue failure of the sway bar under certain conditions.

Corrective Action:

As a result, MCI strongly urges owners of the MY 2013, MY 2014, MY 2015, MY 2016 and MY 2017 coaches listed below to implement the steps in this procedure as soon as possible.

66554	66748	66796 to 66798	66823 to 66824	66826
66841 to 66842	66844	66960	67000 to 68315	

Parts

Qty.	New P/N	Description
1	26-12-0013	Kit, Sway Bar
		<i>Kit Contents are:</i>
1	04-19-1476	Channel Assy, Mtg Air Tank
1	12-05-1348	Sway Bar, Front
2	12-05-1351	Bushing, Sway Bar
2	12-05-1358	Clamp, Sway Bar
4	12-05-1375	U-Bolt, Square, 5/8 inch
1	12-05-1376	Bracket, Sway Bar, RH
1	12-05-1377	Bracket, Sway Bar, LH
1	12-05-1380	Channel Assy
2	12L-3-133	Collar, Holding
6	19-01-1535	Capscrew, 1/2 inch, Yellow Zinc Plating
12	19-01-2341	Capscrew, 5/8 inch
12	19-02-0431	Washer, Flat
2	19-03-0641	Nut, Hex, Slotted
2	19-10-283	45° Street Elbow Fitting
8	19-3-0557	Locknut, Nylon Insert, 5/8 inch
2	19-7-26	Cotter Pin
a/r	21-7112-25	Sikaflex, White, 221
a/r	21-7203-2	Sealant, Pipe Fitting
a/r	21-7212-18	Loctite, Blue
a/r	21-7512-5	Lubricant, Grease, Heavy

Service Procedure:



Read this entire procedure before beginning work.

Use Safe Shop Practices At All Times.

1. Using the steering wheel, turn the coach wheels all the way to either side of the coach to facilitate ease of retrofit component removal.
2. Turn the main battery disconnect to the OFF position.

⚠ WARNING

To avoid the potential for personal injury, the front suspension air must be drained prior to removal of the air tanks referenced in this procedure.

3. Drain the air from the front suspension by releasing all the air in the front tank equipped with an automatic drain valve (refer to Figure 1).



Figure 1. Reference photo of utilizing a hook rod on the tank automatic drain valve.

⚠ WARNING

DO NOT place safety stands in any other location than shown in this procedure and in the MCI J4500 Maintenance Manual.

4. Lift the coach to desired work height. Position safety stands underneath the coach in only the specified locations shown in Section 3F in the MCI J4500 Maintenance Manual and Figure 1 of this document.

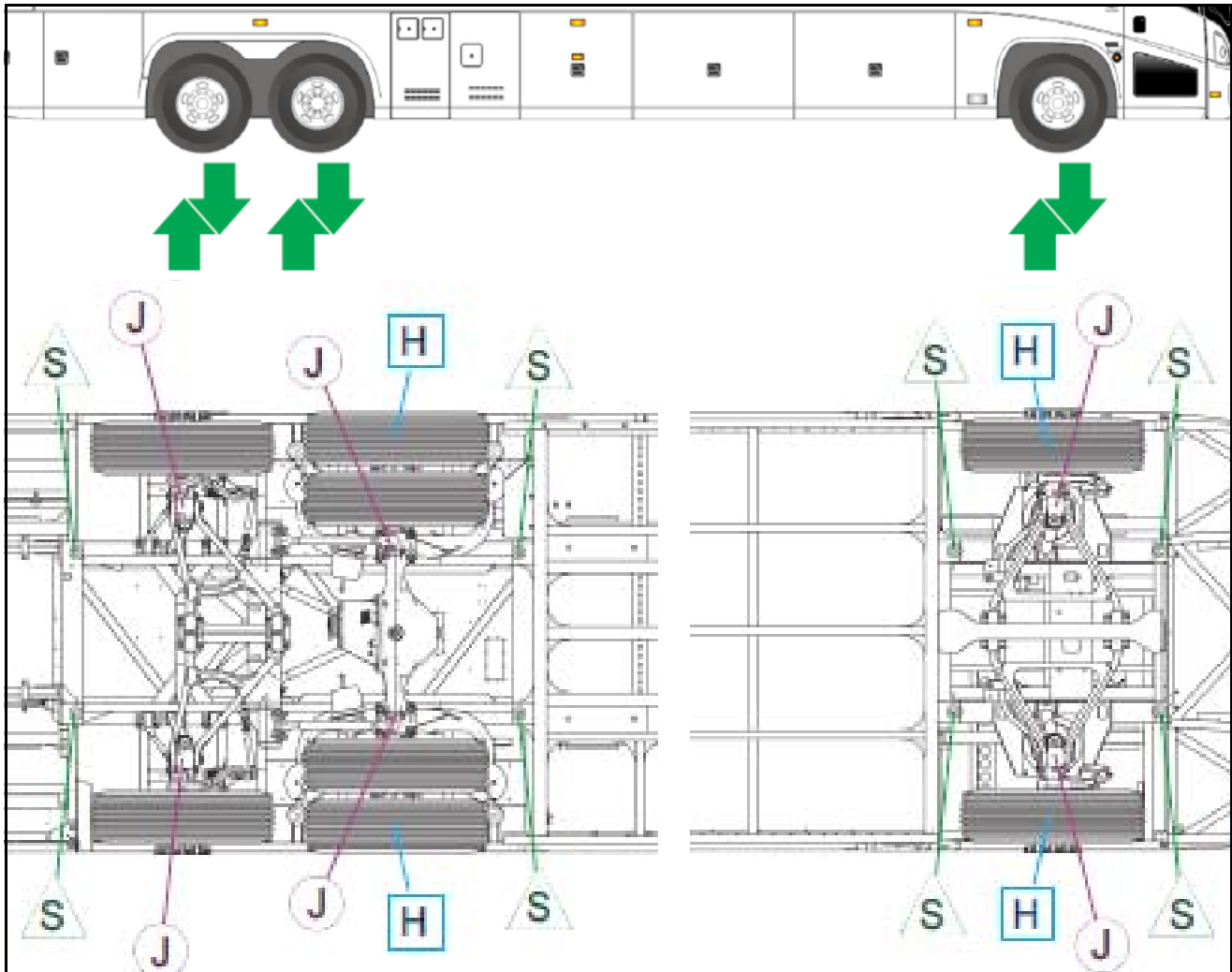


Figure 2. J4500 coach safety stands location.

Item	Figure 2 Description
S	Safety Stand (Primary locations)
J	Jacking Point
H	Hoisting Point

WARNING

The joint between the sway bar and the sway bar links to the axle are under load.

To prevent the sway bar from springing back when disconnecting the sway bar linkage from the sway bar, follow the steps below.

Failure to follow these steps may result in personal injury.

NOTICE

DO NOT remove the existing sway bar links (refer to Figure 16 / Item 5).

Loosen only, DO NOT remove the existing castle nuts from the sway bar linkage (refer to Figure 16 / Item 6). Leave the two (2) castle nuts at least half way tight on the sway bar linkage stud.

Using a hammer, tap both ends of the sway bar to break the joint between the sway bar ends and the linkage (refer to Figure 16 / Items 1 and 5).

Once the joints between the sway bar and the linkage open up, remove and discard the existing castle nuts (refer to Figure 16 / Item 6).

5. Remove and discard the existing front axle sway bar.

NOTICE

Reference the yaw sensor label orientation to ensure correct re-installation at a later step in this retrofit.

6. Locate the yaw sensor with location pin on the front axle upper channel which supports the air tanks.
7. Carefully disconnect the yaw sensor harness and remove the yaw sensor and location pin from the mounting holes in the front axle upper channel to be re-installed at a later step in this procedure.
8. Locate the air tanks mounting on the front axle upper and lower channel.

WARNING

Loosen only, DO NOT remove, the mounting hardware from the front axle lower channel. The mounting hardware on the front axle lower channel will be utilized to secure the air tanks during front axle upper channel replacement.

9. Loosen the front axle lower bracket mounting hardware, which mounts the lower air tank bracket, a couple of turns for ease of assembly installation.
10. Remove and discard the mounting hardware from the front axle upper channel. Carefully remove and discard the front axle upper channel leaving the air tanks installation in place.
11. Using new mounting hardware, p/n 19-01-1535, orient and mount the new front axle upper channel, 04-19-1476, to the coach frame at the four (4) locations shown in Figure 3. Leave the bolts loose for ease of the lower channel installation, occurring at a later step in this retrofit.

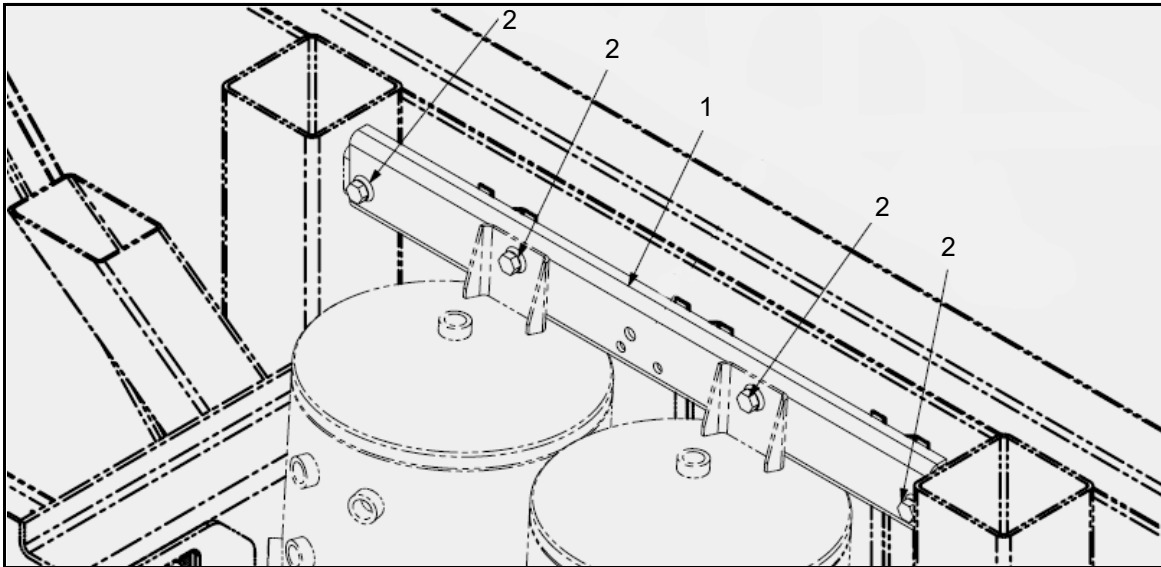


Figure 3. Front axle upper channel mounting installation.

Item	Figure 3 Description
1	Front axle upper channel
2	Mounting hardware (four locations)

12. Remove and discard the mounting hardware from the lower channel. Carefully remove and discard the lower channel leaving the air tanks installation in place.
13. Using the dimension shown in Figure 4, cut off the lower section of the air tank lower bracket as shown in Figure 5.

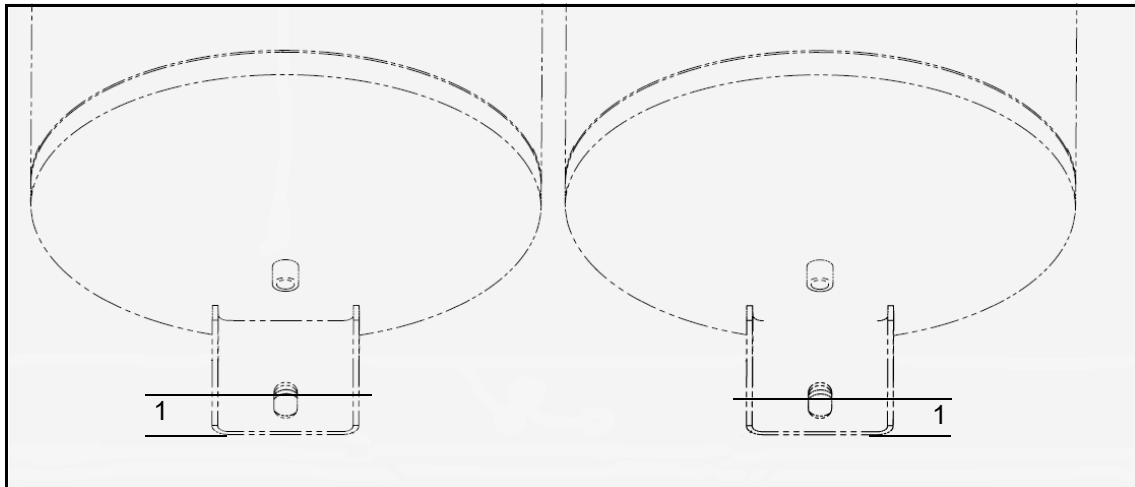


Figure 4. Lower section of the air tank lower bracket.

Item	Figure 4 Description
1	Measurement of one (1) inch



Figure 5. Reference photo of cut to air tank lower bracket.

14. Using a measuring tape and marker, mark the intersecting lines on the inboard section of the cut air tank lower bracket, as shown in Figures 6 and 7.
15. Using a 0.530 drill bit and drill bit guard, drill a hole at the intersecting lines (refer to Figure 6 and 7).
16. Repeat Steps 14 and 15 to second air tank.

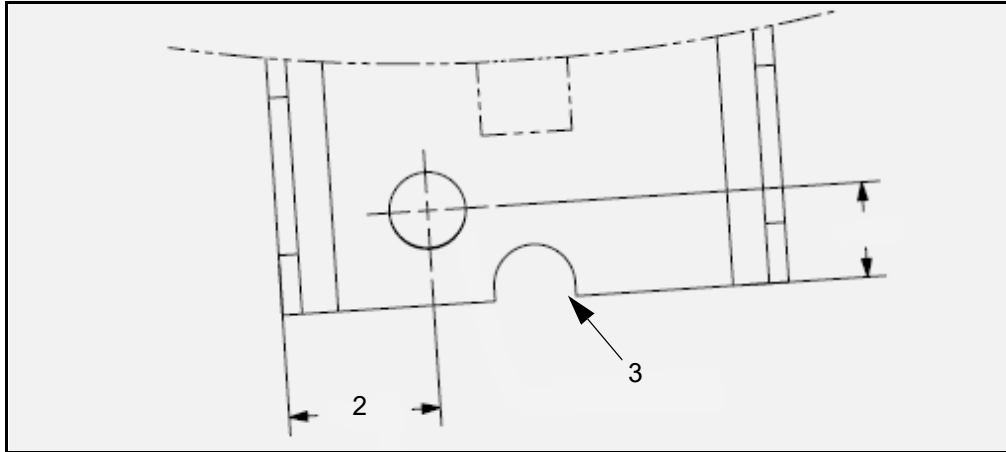


Figure 6. Drill hole measurements on cut air tank lower bracket.

Item	Figure 6 Description
1	Measurement of 0.65 inch
2	Measurement of 1.04 inch
3	Existing air tank lower bracket mounting hole, post retrofit cut (refer to Figures 6 and 7)

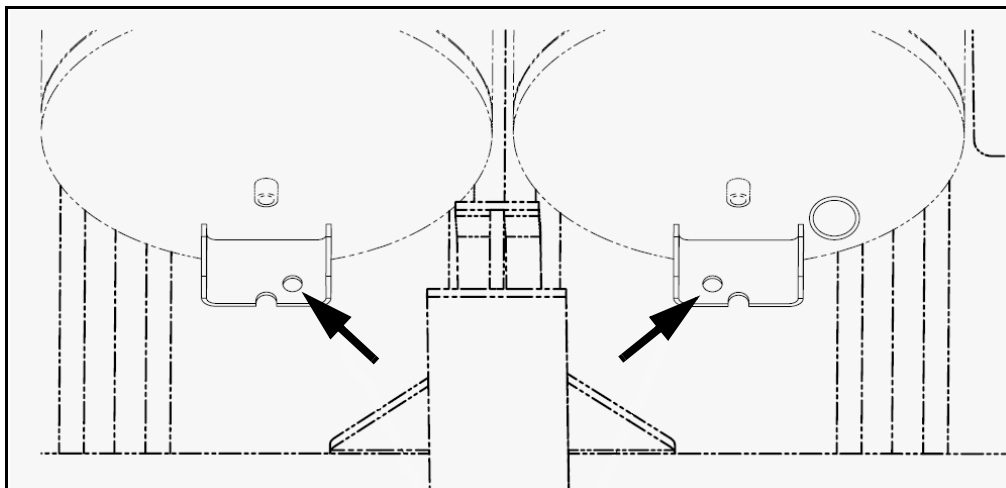


Figure 7. New drilled holes in the inboard section of the air tanks lower brackets.

17. To allocate the fitment and installation of the existing air tanks to the new coach structure channels, the existing sway bar brackets will need to be cut using the measurements shown in Figure 8.

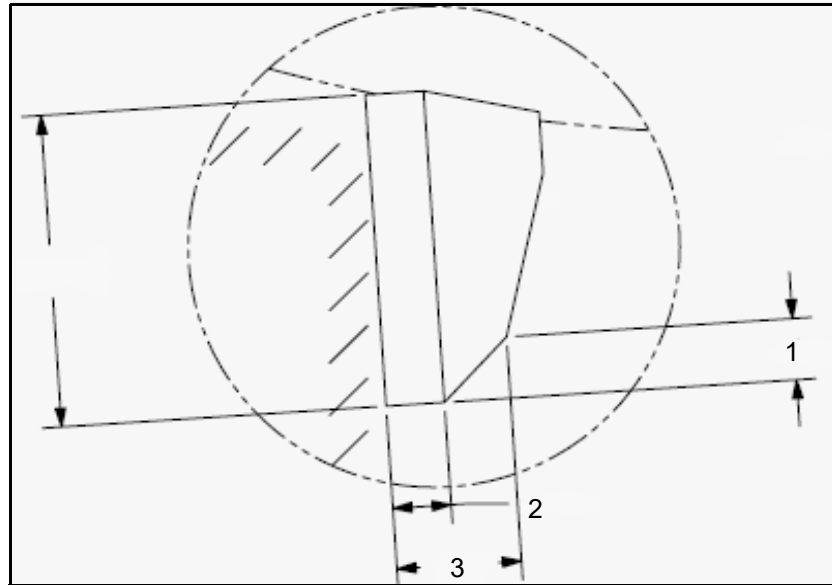


Figure 8.

Item	Figure 8 Description
1	Measurement of 0.41 inch
2	Measurement of 0.38 inch
3	Measurement of 0.82 inch

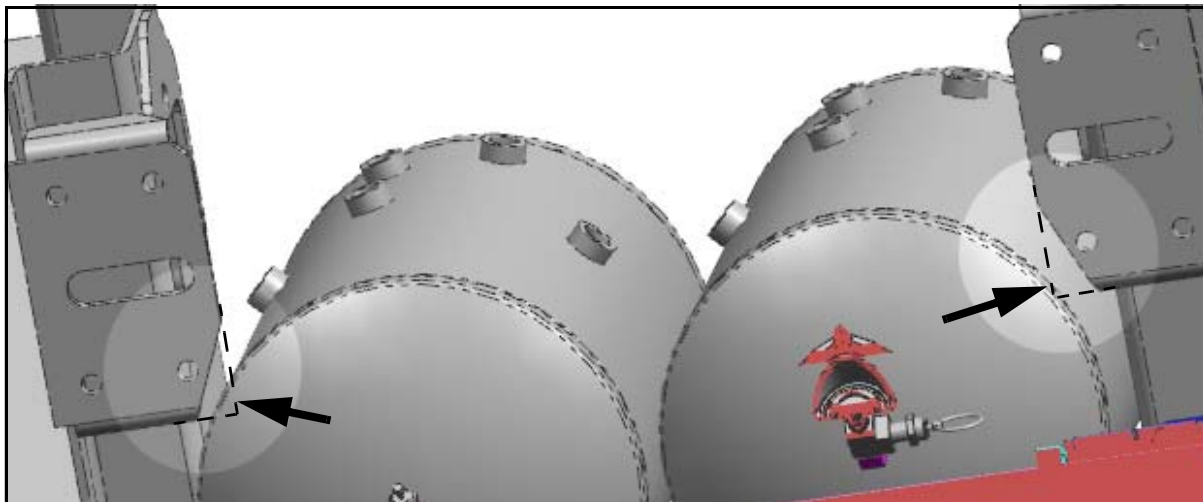


Figure 9. Reference illustration showing brackets modified for tank installation.

18. Clean the reworked area of the sway bar brackets and fill with black paint.

19. Orient the u-bolts, p/n 12-05-1375, around the tubing at the dimension shown in Figure 10. Using a marker, mark the four (4) locations to be drilled in the bulkhead panel.
20. Using a 0.250 drill bit, drill pilot holes per the marked dimensions in Step 19.
21. Open and secure the baggage bay compartment #1 doors in the open position. Enter the baggage bay compartment #1 and locate the pilot holes. Using a 0.75 inch drill bit and a drill bit stop, drill a hole in the four (4) pilot hole locations.

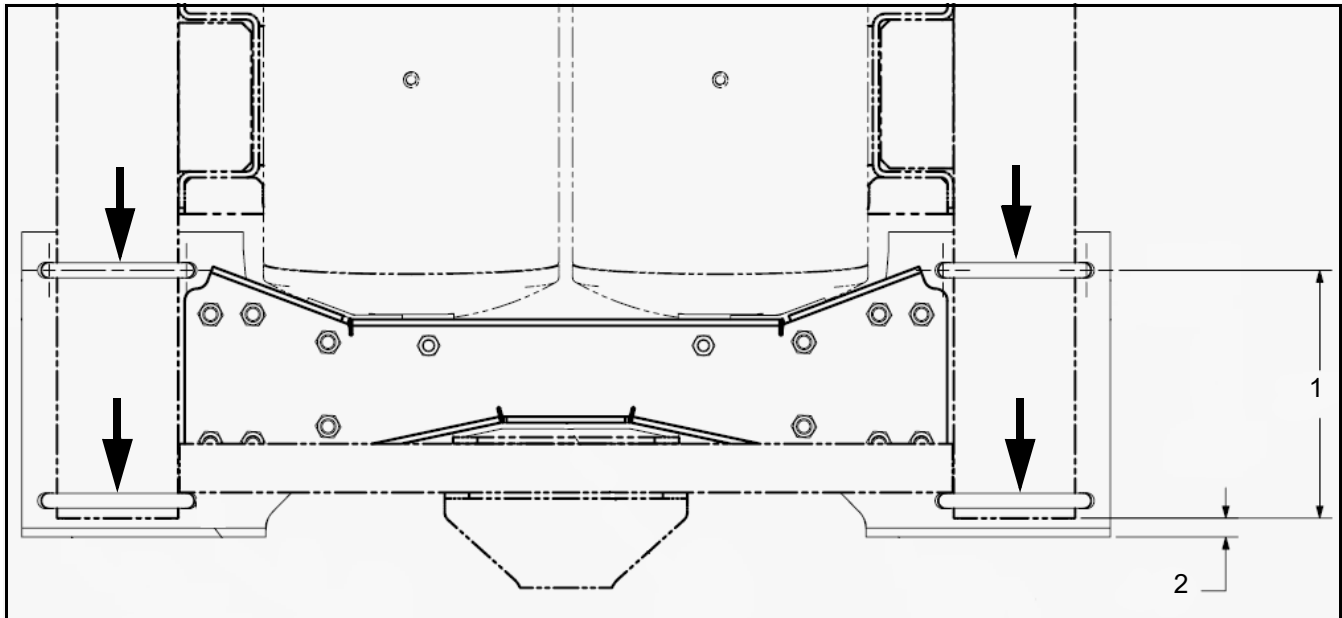


Figure 10. Drill hole measurements.

Item	Figure 10 Description
1	Measurement of 10.22 inch, typical
2	Measurement of 0.78 inch, typical



Figure 11. Reference photo of drill holes and u-bolts on front panel of bagg. bay #1.

22. Orient the sway bar brackets, p/n 12-05-1376 and 1377, with the drilled holes against the bogie leg as shown in Figure 12. Using a marker, mark an outline around the complete sway bar brackets (curbside and roadside).

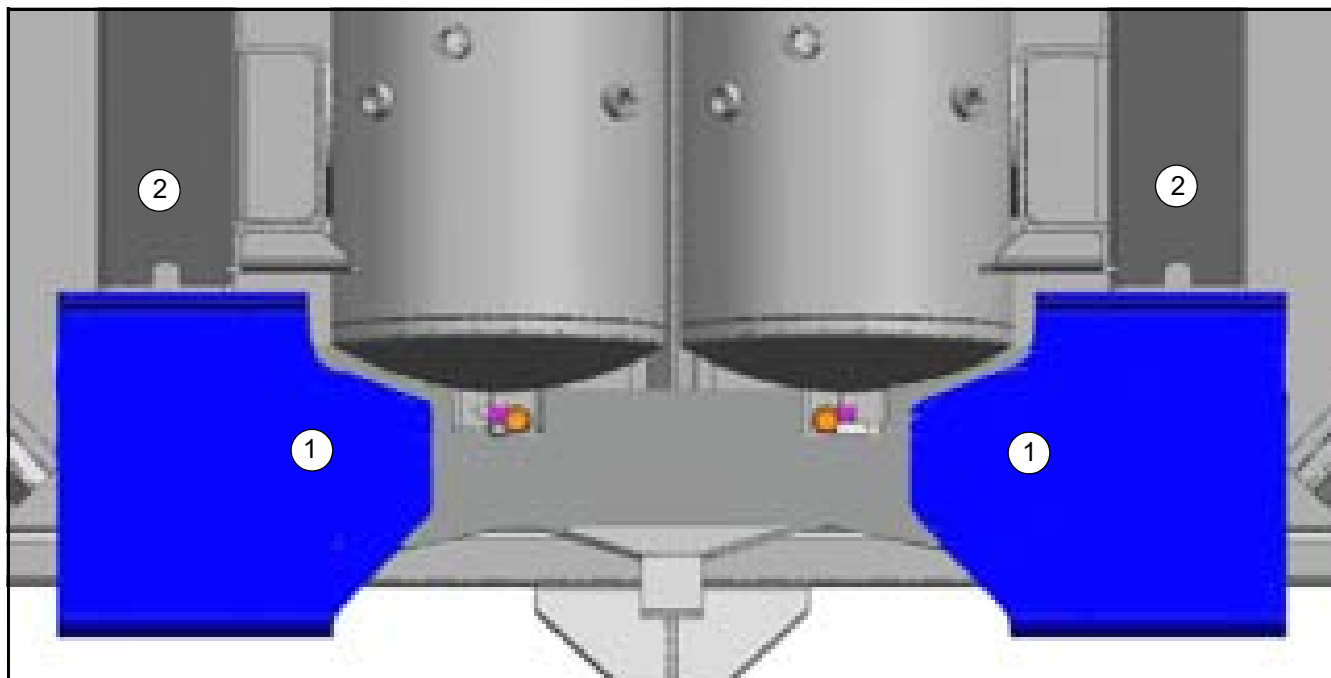


Figure 12.

Item	Figure 12 Description
1	Sway bar bracket
2	Bogie leg

WARNING

The hydroarmour must be removed from the outlined area to ensure the integrity of the torque applied of the mounting hardware.

23. Remove the sway bar brackets and place aside to be re-installed at a later step. Clean to remove all hydroarmour coating from the area inside of the marked outline.
24. Clean the area and fill with black paint.

NOTICE

Allow enough time for the paint to cure prior to installing retrofit parts in painted area.

25. Orient the roadside sway bar bracket, p/n 12-05-1377, with the drilled holes. Orient the u-bolts, p/n 12-05-1375, through the sway bar bracket holes in baggage bay compartment #1 and around the bogie leg as shown in Figure 13. Orient and place the flat washer, p/n 19-02-0431, and lock nut, p/n 19-3-0557, on the u-bolt threads.
26. Repeat Step 25 to the curbside sway bar bracket.
27. Using a criss-cross, opposite sides pattern, torque the u-bolt lock nuts to 206-226 ft-lbs.



Figure 13. U-bolt routing from the forward bulkhead panel inside baggage bay compartment #1.

28. Orient the lower channel, p/n 12-05-1380, between the curbside and roadside bogie legs and the two (2) holes identified as Item 1 / Figure 14 on the sway bar brackets. Using four (4) washers, p/n 19-02-0431, and four (4) capscrews, p/n 19-01-2341, secure in position hand-tight.

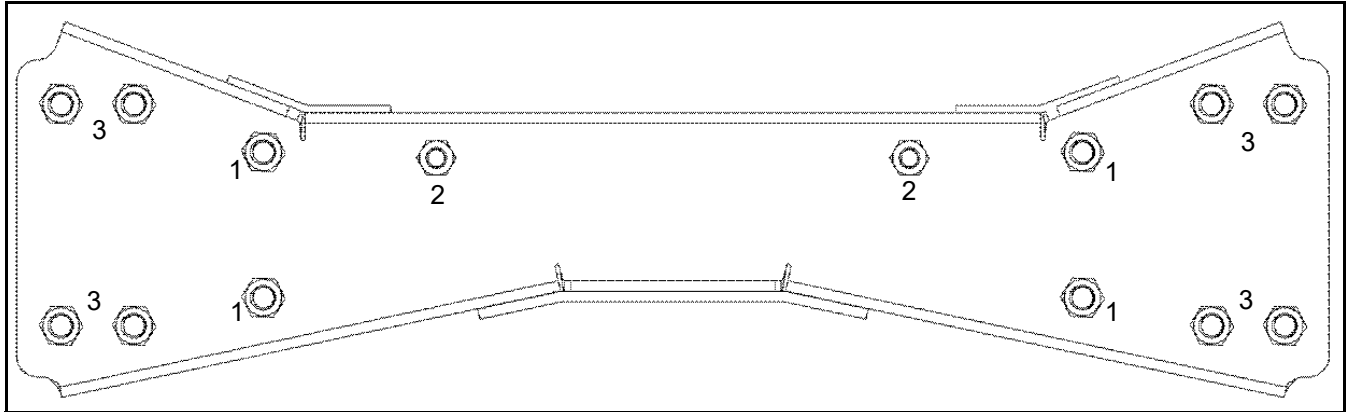


Figure 14. Lower channel mounting hole designation.

Item	Figure 14 Description
1	Lower channel mating holes for the inboard holes on the sway bar bracket
2	Lower channel mating holes for the air tank installation
3	Lower channel mating holes for the sway bar bushing and clamp

29. Orient and install the capscrews, p/n 19-01-1535, hand tight to secure the air tank lower brackets to the lower channel.
30. Torque the four (4) capscrews, p/n 19-01-1535, on the upper channel and the two (2) capscrews on the lower channel air tank brackets to 68-78 ft-lbs.

⚠ CAUTION

For proper re-installation and function of the yaw sensor, the yaw sensor must be oriented and installed with the label facing upwards.

31. Apply Loctite, p/n 21-7218-18, to the yaw sensor hardware. Orient and the yaw sensor, with the label facing upwards, to the existing mounting holes in the upper channel-air tank mount. Torque to 32-34 ft-lbs.

⚠ CAUTION

Apply grease to the sway bar bushing where there is contact between sway bar and the clamp.

32. Install the new sway bar and service kit components as shown in Figures 15 and 16.

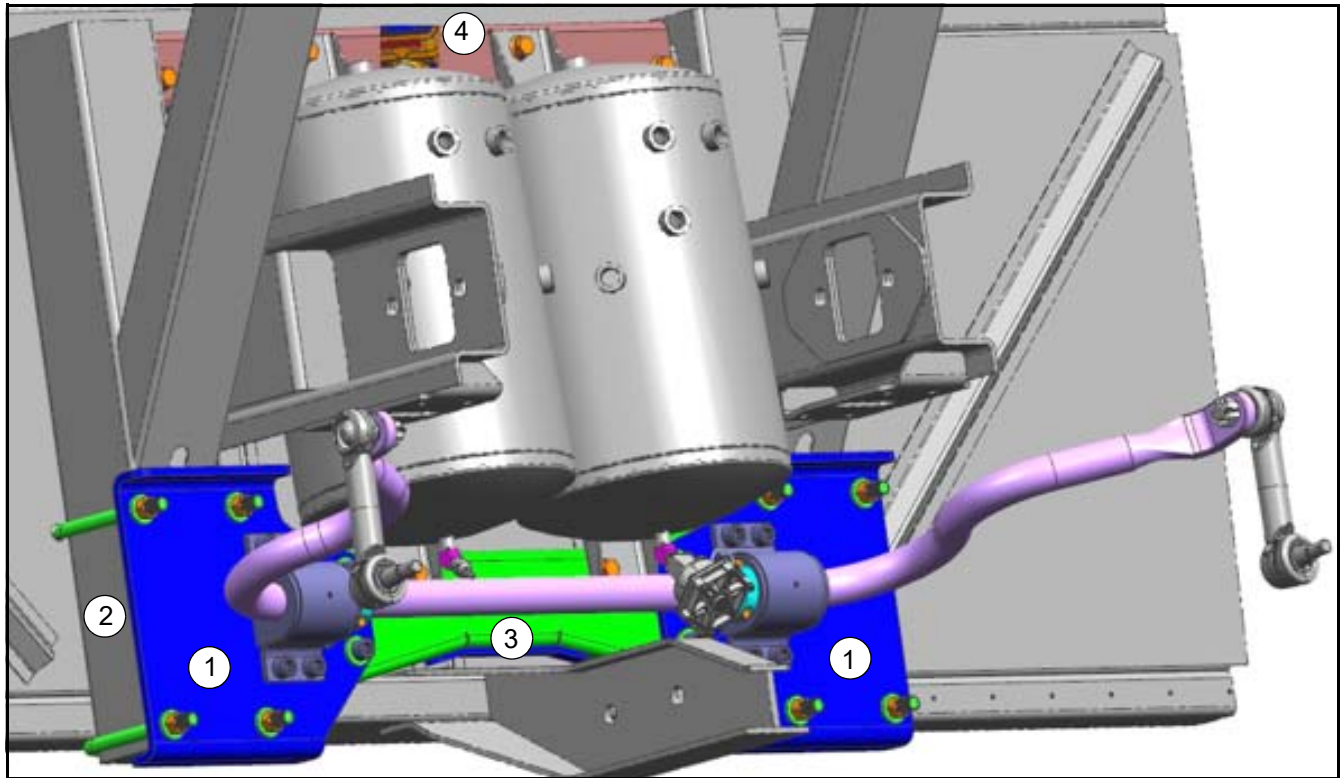


Figure 15. Sway bar assembly installation.

Item	Figure 15 Description
1	Sway bar bracket (curbside and roadside)
2	Bogie leg(curbside and roadside)
3	Lower channel
3	Upper channel

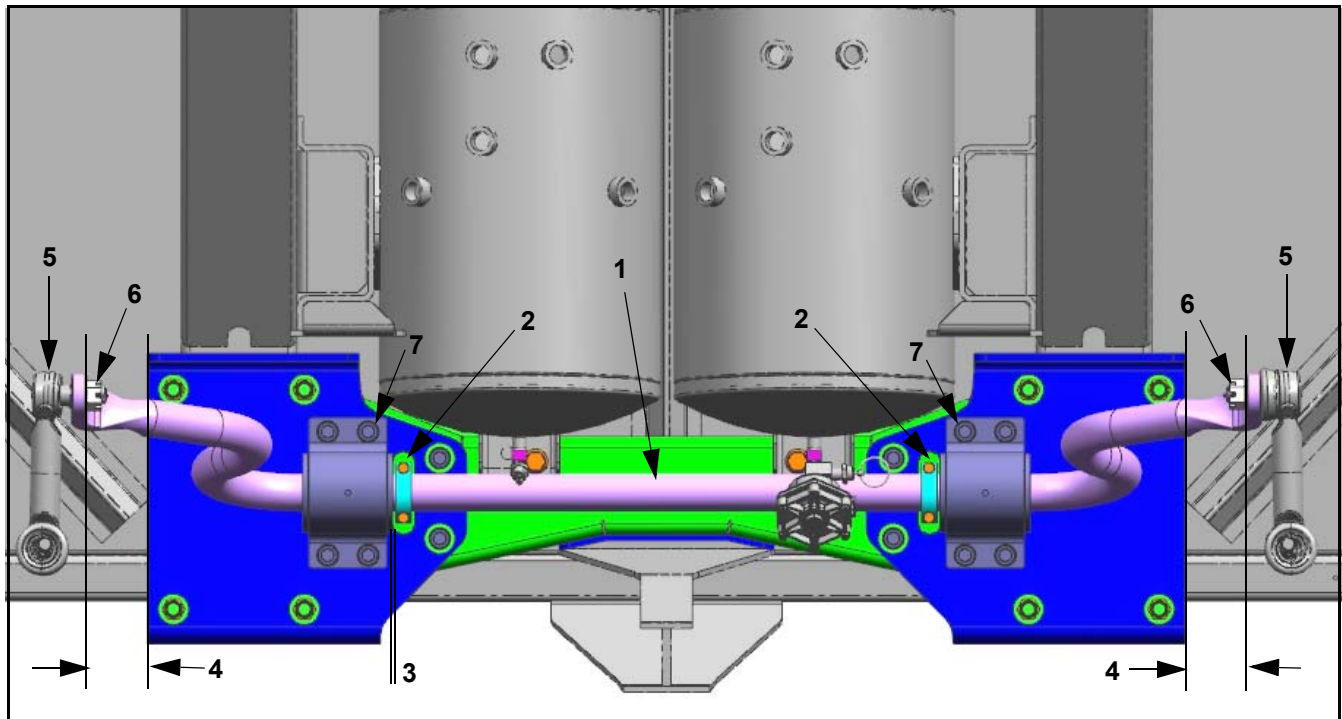


Figure 16.

Item	Figure 16 Description
1	Sway bar
2	Wipe to clean any excess grease from the sway bar prior to installing holding collar. Ensure gaps between collars is equal between the top and bottom. Torque collar allen bolts to 25-28 ft-lbs.
3	Distance of 0.12 inches, typical
4	Distance of 2.42 inch
5	Existing sway bars links. Ensure sway bars links are vertical and spaced equally from uprights.
6	New castle nut. Torque to 110-130 ft-lbs. After torque, tighten nut to align cotter pin hole with slot in castle nut. Insert cotter pin, p/n 19-7-26, and deform ends
7	Apply Blue Loctite to the four (4) bolt threads mounting the sway bar clamp. Torque to 150-160 ft-lbs.

⚠ CAUTION

Apply a thin layer of pipe fitting sealant to the threads.

33. Orient and install the 45° street elbow fittings, p/n 19-10-283, to the lower air tank ports (refer to Figures 16, 17 and 18).
34. Orient and install the existing drain valves (refer to Figures 16, 17 and 18).

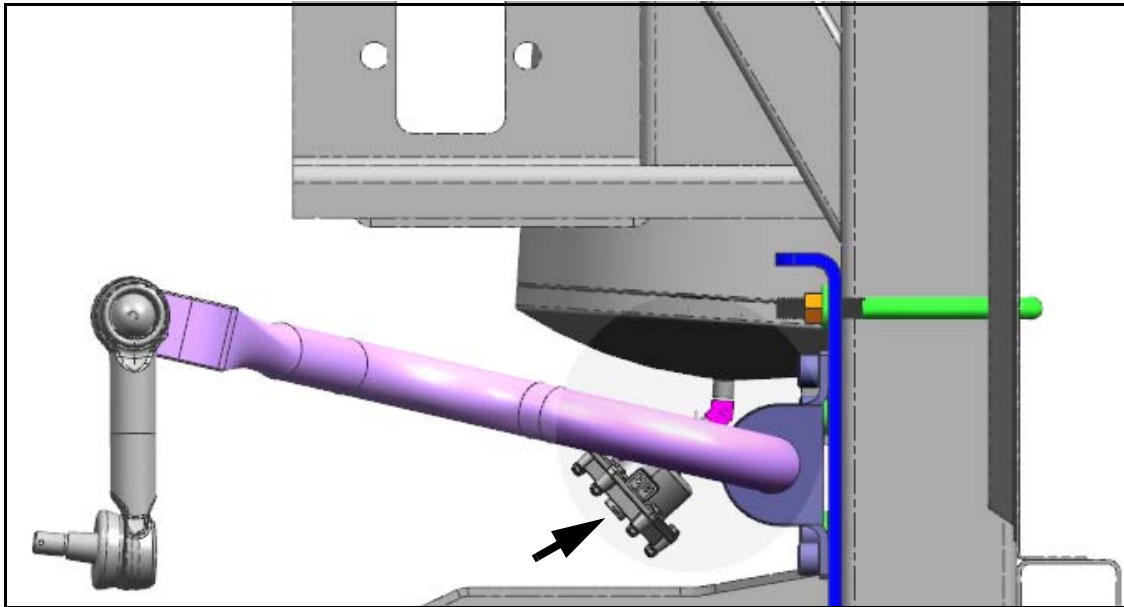


Figure 17. Expello electric drain valve.



Figure 18. Drain valve installation.

35. Apply a bead of sikaflex to seal around the u-bolts at the bulkhead panel interface in baggage bay compartment #3.



Figure 19. Application of sikaflex to u-bolts and interface area.

36. Apply torque seal from the face of all torqued hardware to the face of the mating part.

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.

A labor allowance of 8.0 hour will be granted for this rework on affected J4500 model 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.

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

Reliability Driven™

MCI FIELD CHANGE PROGRAM (FCP) VERIFICATION

CONTACT INFORMATION	
CUSTOMER NAME: _____	
(PLEASE PRINT)	
FCP INFORMATION – ONE FORM PER UNIT	
FCP#: _____ Coach Model _____ Model Year _____	
COACH SERIAL #: (At least the last 5 digits)	DATE COMPLETED ____ / ____ / ____
MILEAGE:	
<u>IMPORTANT:</u> TO RECEIVE CREDIT FOR ANY ALLOWABLE LABOR CHARGES, THIS VERIFICATION FORM MUST BE RETURNED TO MCI UPON COMPLETION OF THE FCP.	
SUBMITTED BY: (Please Print) _____ DATE ____ / ____ / ____	
TITLE: (Please Print) _____	
SIGNATURE: _____	
COMMENTS:	

FAX TO: 800-360-8886

MAILING ADDRESS:

**MOTOR COACH INDUSTRIES
ATTN: WARRANTY DEPT.
7001 UNIVERSAL COACH DRIVE
LOUISVILLE, KY 40258**

MCI part # 03-15-7738C