



THIS SERVICE BULLETIN SUPERSEDES SERVICE BULLETIN 454. MCI URGES YOU TO MAKE ARRANGEMENTS TO REPAIR YOUR AFFECTED VEHICLE(S) AS SOON AS POSSIBLE.



Subject: Front Brake Hose Rework			
Field Change Program: Field Campaign	FCP Number: 481	Revision: A	Date: 06/24/2020
Coach Section: 04-Brakes & Air system	P/N: 04-20-1817		Type: Safety Recall

Ref. NHTSA Recall No.: 20V-233	Ref. Transport Canada Recall No.: 2020-179
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Application:

Coach Model	Model Year	VIN
J4500	2014 - 2019	66554, 66748, 66796 - 66798, 66823, 66824, 66826, 66841, 66842, 66844, 66960, 67000 - 68117, 68119 - 68148, 68150 - 68605, 68607 - 68617, 68619 - 68677, 68679 - 68690, 68692 - 68716, 68718 - 68745, 68747 - 68771, 68773 - 68802, 68804 - 68876, 68878 - 68908, 68910 - 68934, 68936 - 68964, 68966 - 69482, 69484 - 69502
J3500	2018 -2019	68877, 68909, 68935, 68965, 21000 - 21026

This field campaign does not necessarily apply to all the above-mentioned coaches. The owners of the coaches affected by this field campaign will be advised by a letter indicating the Vehicle Identification Number (VIN) of each applicable coach.

 WARNING

Read this entire procedure before beginning work.

Use Safe Shop Practices at All Times.

To avoid personal injury:

- a. Proper Personal Protective Equipment (PPE) must be worn. Safety glasses and protective gloves are required for working with DEF Fluid.***
- b. Turn the main battery disconnect switch to the OFF position.***
- c. Ensure that both the front and the rear wheels are chocked.***

- d. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position.**
- e. Allow enough time for components to cool down prior to working in the engine compartment.**

1.0 Description

Customer complaint:

Motor Coach Industries (“MCI”) has become aware that on certain J4500 and J3500 model coaches, the front brake hoses may crack or otherwise fail due to their routing and clamping orientation, resulting in air leaking from the hose. As a result, brake performance could be affected. Reduced brake performance can cause extended stopping distances and increase the risk of a crash.

Cause:

With the current front brake hose routing and clamping orientation, the bend radius is too tight, causing compression set and metal reinforcement fatigue.

Corrective action:

MCI recommends owners of the affected coaches have the following procedure performed as soon as possible to replace the front brake hose and update the routing to eliminate the “S” bend in the brake hose, thereby reducing loading on the hose during suspension articulation.

2.0 Material requirements

Service kit **26-04-0069** contains the following parts:

ITEM	PART NO	QTY	U/M	DESCRIPTION
1	04-20-1890	2	EA	Hose assy- Brakes, Front
2	19-03-0519	8	EA	Nut-Hex, Lock, Flanged, 1/4-20
3	19-1-1303	12	EA	Screw-Cap, Hex, 1/4-20 UNC X 2.25 LG, 18-8 SST
4	19-2-37	4	EA	Washer-LK,HLCL,1/4 ID, SST
5	19-11-258	24	EA	Tyrap- 7.31” LG

3.0 Special tools

Thread sealer, MCI P/N: 23-06-0070 (Vendor: Loctite, VPN: 545) or equivalent.



4.0 Procedure

4.1 Coach preparation

Lift the coach at the specified locations as per MCI Maintenance manual. (***Refer to the Appendix for the proper jacking point locations based on coach model.***)

Remove and save the ten nuts on the hub cover of the front axle wheel. Save the hub cover



Remove and save the
hub nuts and hub cover

Remove and save the ten flange nuts on the wheel. Remove and save the wheel.



Remove and save the
flange nuts

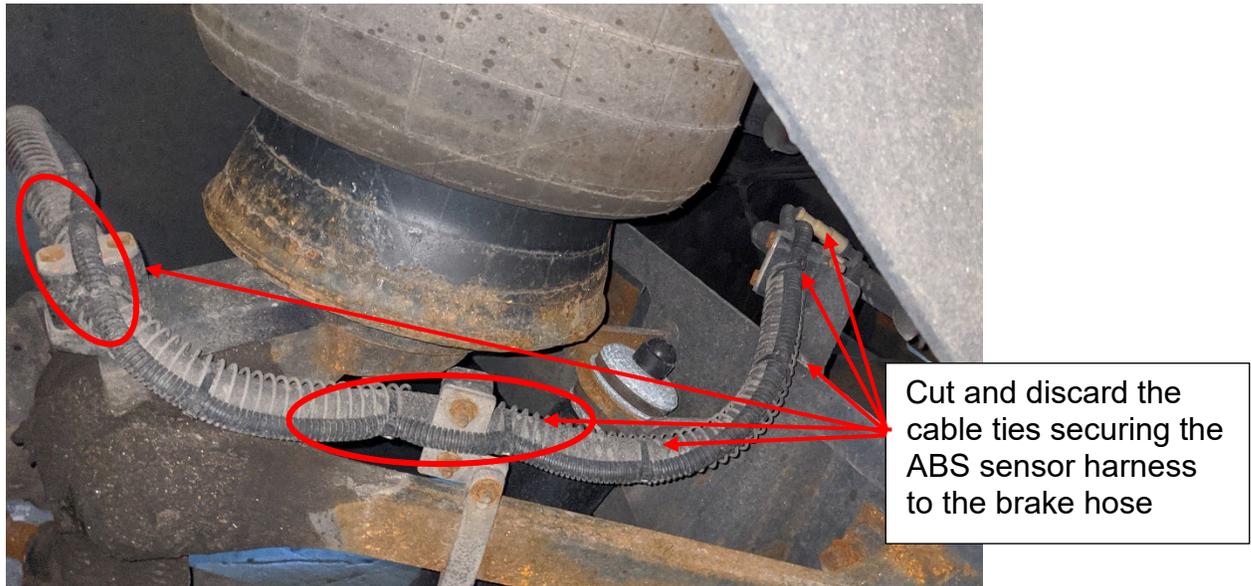
WARNING

Tire and wheel assemblies weigh more than 200 lbs.

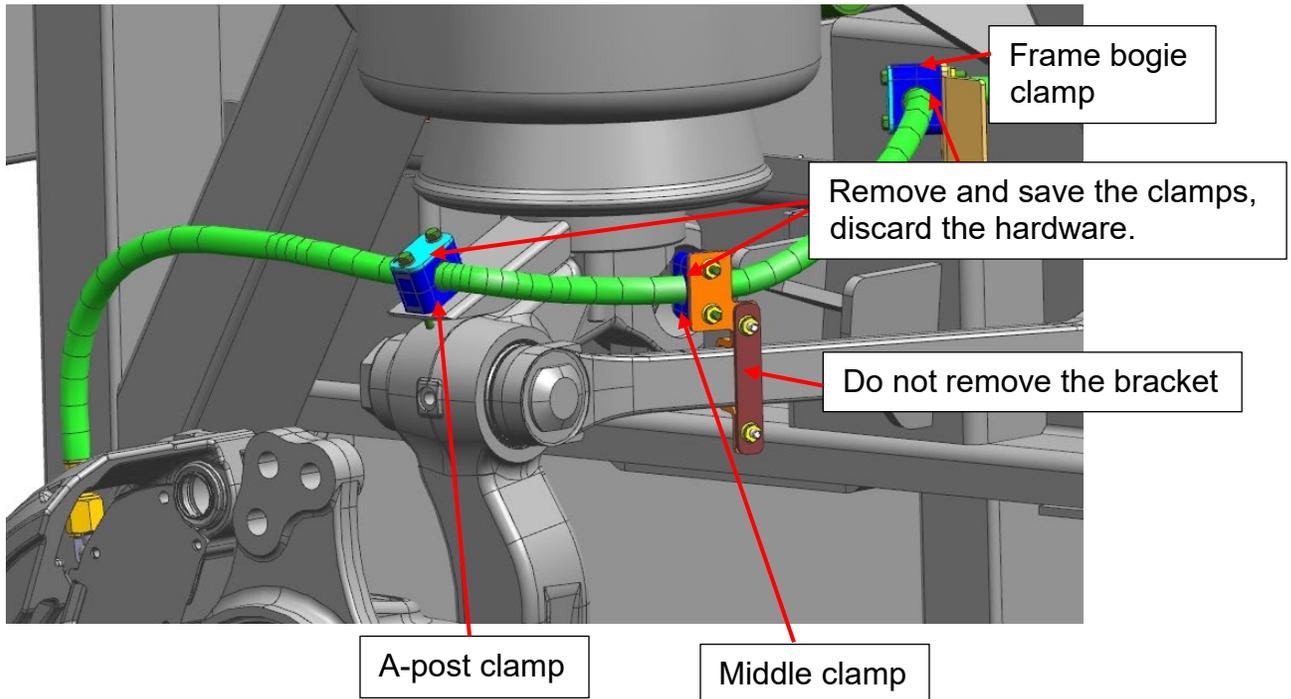
To prevent personal injury, use caution when loosening the wheel nuts, and when lifting the wheel off the hub.

4.2 Remove the existing brake hoses

Drain air off the coach following instructions in the maintenance manual. Cut and discard the cable ties securing the ABS sensor harness to the front brake hose assembly on the driver side. Disconnect the front brake hose assembly from the ABS front module and front brake chamber on the wheel.



Remove the three clamps (A-post clamp, middle clamp, and frame bogie clamp), plates, and hardware securing the brake hose to the axle. Save the clamps and plates. Discard the hardware. Make sure not to remove the bracket securing the middle clamp.



Disconnect the front brake hose on the wheel end by holding the 90-degree fitting on the front brake chamber tight with a wrench.



Disconnect the brake hose.

Hold the 90-degree fitting with a wrench

NOTICE

CAUTION

Failure to hold the fitting with a wrench while loosening the brake hose may result in damaging the fitting.

Disconnect the front brake hose on the other end by holding the fitting on the ABS front module relay valve tight with a wrench. Discard the brake hose.



Remove and discard the brake hose.

Hold the fitting with a wrench

NOTICE

CAUTION

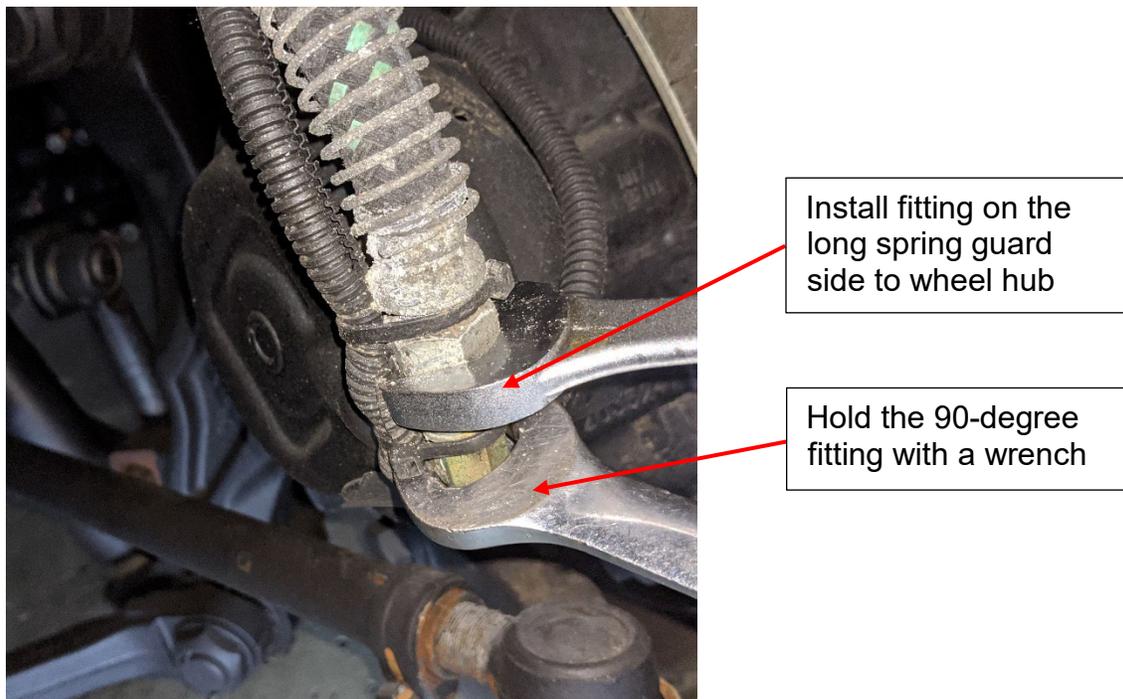
Failure to hold the fitting with a wrench while loosening the brake hose may result in damaging the fitting.

4.3 Installing the new brake hose

Identify the fitting on the side of the long spring guard on the new brake hose, MCI P/N: 04-20-1890.



Apply two drops of thread sealer, MCI P/N: 23-06-0070, to the previously identified end of the brake hose and install it to the 90-degree fitting on the front brake chamber. Hold the 90-degree fitting on the front brake chamber tight with a wrench while tightening the brake hose. Torque the brake hose fitting to 58 Ft-Lbs.

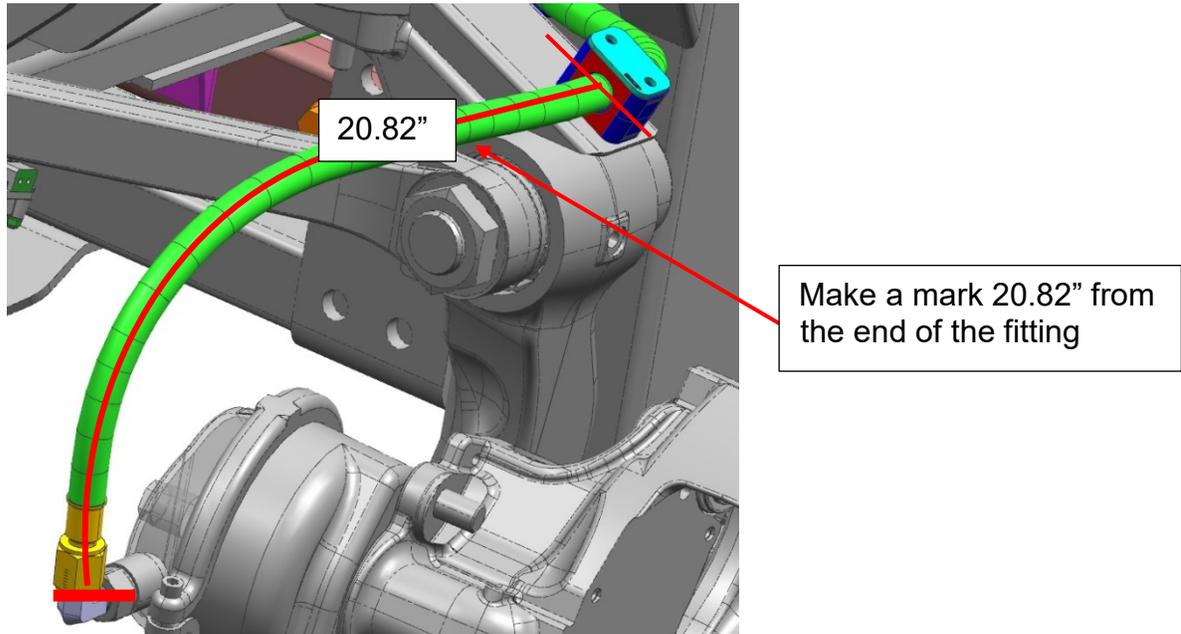


NOTICE

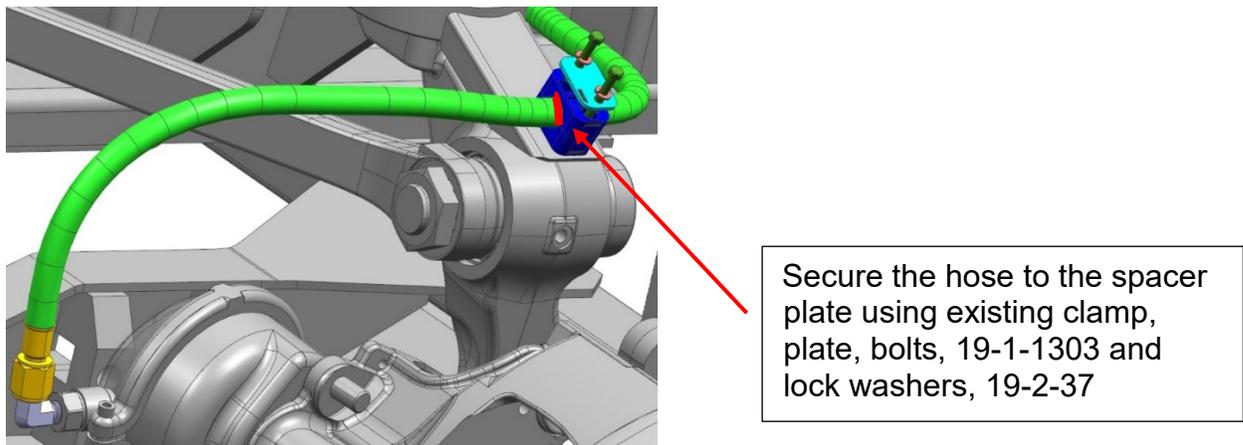
CAUTION

Failure to hold the fitting with a wrench while tightening the brake hose may result in damaging the fitting.

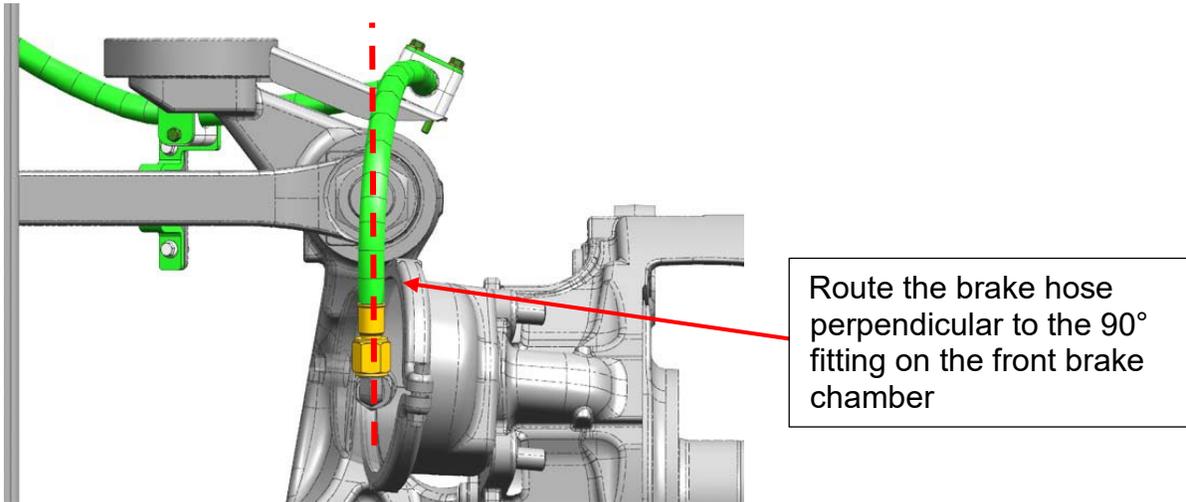
Make a mark on the hose at 20.82" from the end of the fitting and align it with the front face of the A-post clamp.



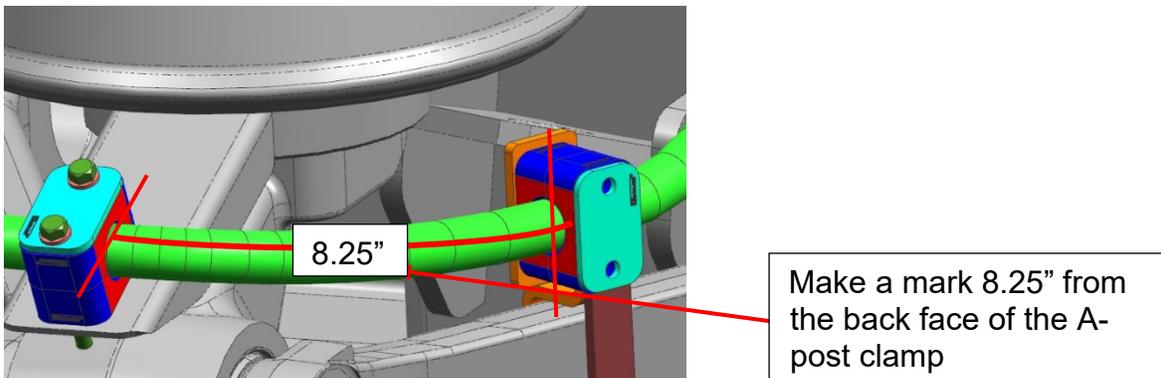
Re-install the existing A-post clamp and plate using bolts, MCI P/N: 19-1-1303, and lock washers, MCI P/N: 19-2-37. Ensure the long spring section is completely between the fitting and the clamp and is not compressed on areas of the hose assembly with spring guard. Torque the bolt to 9 Ft-Lbs.



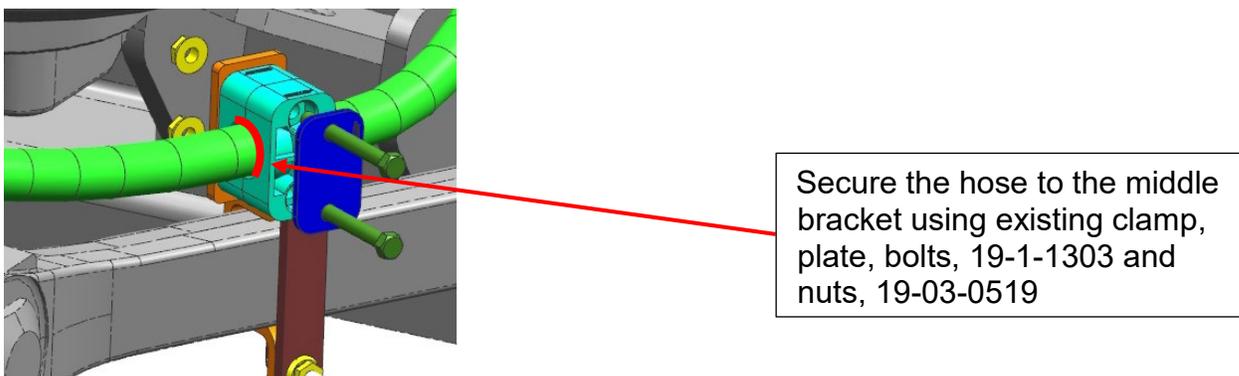
Ensure that the hose between the front brake chamber and A-post clamp is routed perpendicular to the 90° fitting on the front brake chamber.



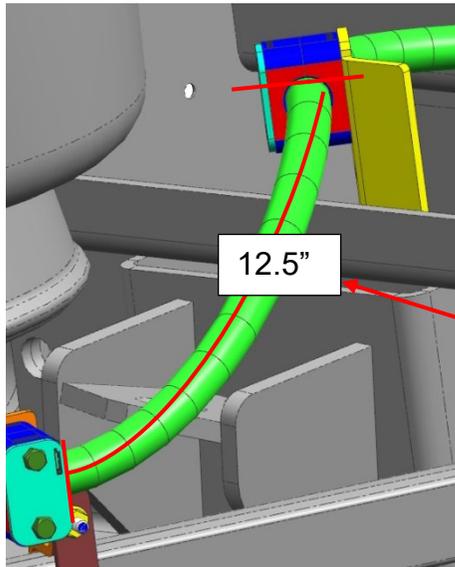
Make a mark on the hose at 8.25" from the back face of the A-post clamp and align it with the front face of the middle clamp.



Re-install the existing middle clamp and plate using bolts, MCI P/N: 19-1-1303, and nuts, MCI P/N: 19-03-0519. Ensure the middle section of the spring is between the clamps and is not compressed on areas of the hose assembly with spring guard. Torque the nuts to 9 Ft-Lbs.

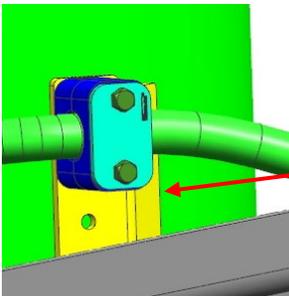


Make a mark on the hose at 12.5" from the back face of the middle clamp and align it with the front face of the frame bogie clamp.



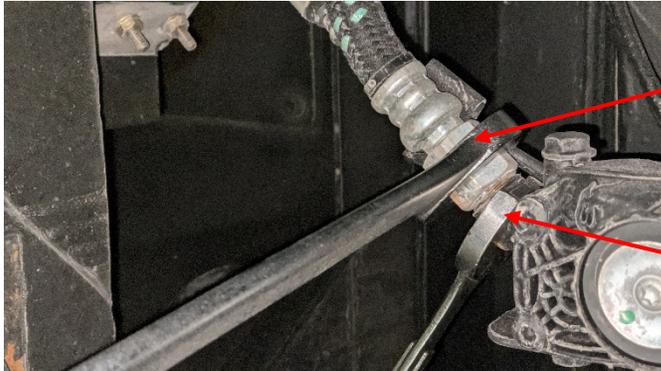
Make a mark 12.5" from the back face of the middle clamp

Re-install the existing frame bogie clamp and plate using bolts, MCI P/N: 19-1-1303, and nuts, MCI P/N: 19-03-0519. Ensure the short section of the spring is between the clamps and is not compressed on areas of the hose assembly with spring guard. Torque the nuts to 9 Ft-Lbs.



Secure the hose to the welded bracket on the frame using existing clamp, plate, bolts, 19-1-1303 and nuts, 19-03-0519

Apply two drops of thread sealer, MCI P/N: 23-06-0070, to the fitting on the free end of the brake hose and install it to the ABS front module relay valve. Hold the fitting on the BAS front module relay valve with a wrench while tightening the hose. Torque the fitting to 58 Ft-Lbs.



Install the free end of the hose to ABS front module relay valve

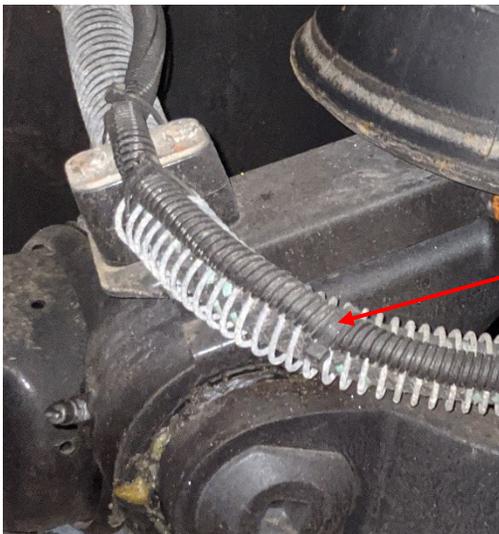
Hold the fitting with a wrench

NOTICE

CAUTION

Failure to hold the fitting with a wrench while tightening the brake hose may result in damaging the fitting.

Secure the ABS sensor harness to the front brake hose using cable ties, MCI P/N: 19-11-258. Use as many cables ties as required to secure the harness.



Secure the ABS sensor harness to the front brake hose using cable ties, 19-11-258

Repeat all the steps on the street side brake hose.

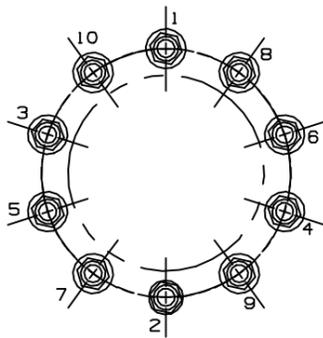
4.4 Re-Installing the tire

Install the wheel using existing flange nuts and hand tighten the nuts.



Install the wheel using flange nuts

Torque the nuts to 450-500 Ft-Lb in the sequence shown below.



Sequence of the nuts to torque

Install the hub cover using the existing nut covers. Turn the nut covers approximately five full turns until the nut cover clamps the hub cover tightly against the wheel.



Install the hub cover using nut covers



5.0 Field Change Program Conditions:

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

A labor allowance of 1 hour will be granted for the rework.

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



5.1 MCI FIELD CHANGE PROGRAM (FCP) VERIFICATION

CONTACT INFORMATION	
CUSTOMER NAME: _____ (PLEASE PRINT)	
FCP INFORMATION – ONE FORM PER UNIT	
FCP#: <u> 481 </u> Coach Model _____ Model Year _____	
COACH SERIAL #: (At least the last 5 digits)	DATE COMPLETED <u> </u> / <u> </u> / <u> </u>
MILEAGE:	
IMPORTANT: 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 <u> </u> / <u> </u> / <u> </u>	
TITLE: (Please Print) _____	
SIGNATURE: _____	
COMMENTS:	



FAX TO: 800-360-8886

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

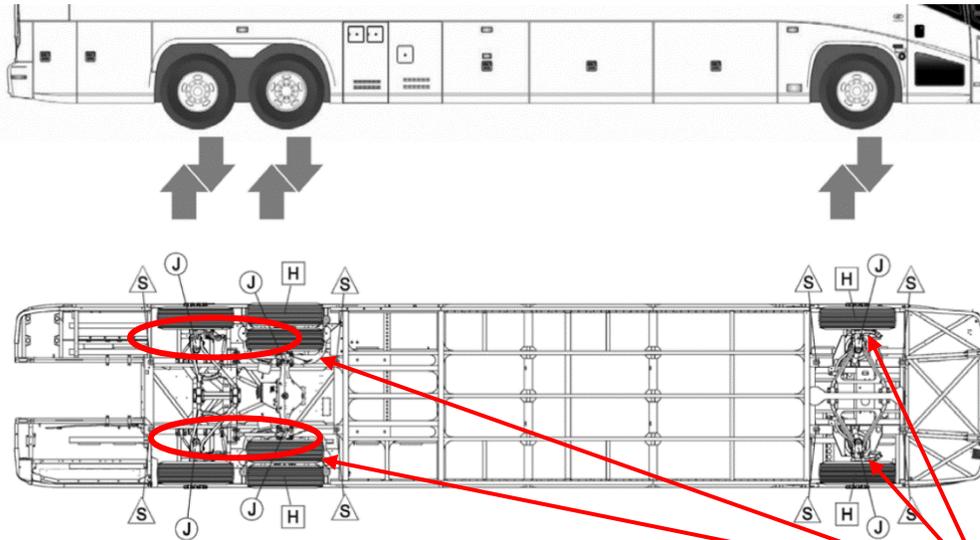
7001 Universal Coach Drive Louisville, KY 40258

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.

6.0 Appendix

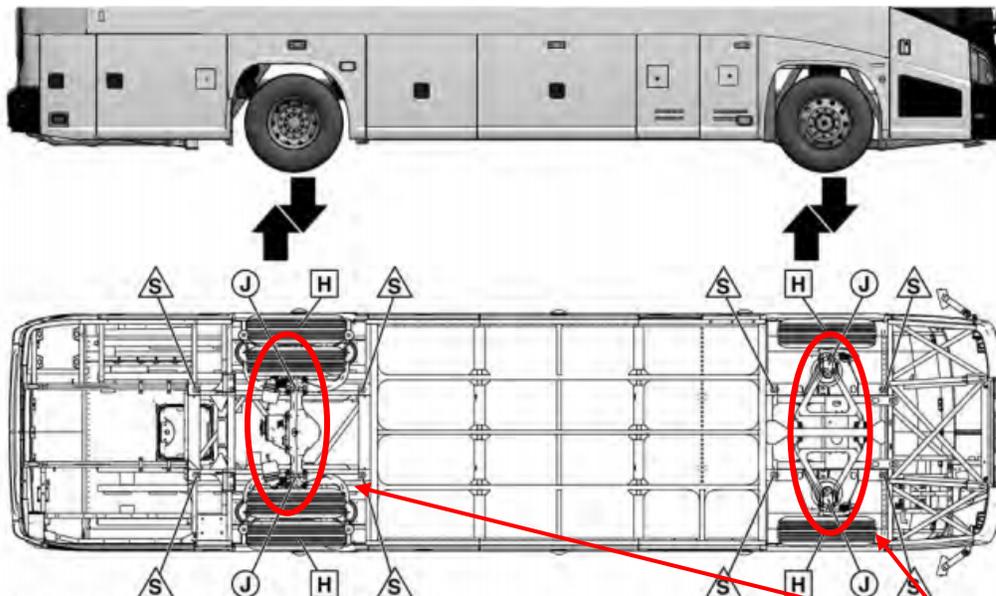
J4500 Jacking points:



-  - Safety Stand (Primary Locations)
-  - Jacking Point
-  - Hoisting Point

Lift the coach at the six jacking points

J3500 Jacking points:



-  - Safety Stand (Primary Locations)
-  - Jacking Point
-  - Hoisting Point

Lift the coach at the four jacking points