



Subject: Tag Axle Lock Clamps Rework								
Field Change Program:	FCP Number:	Revision:	Date:					
Field Campaign	477	A	02/18/2020					
Coach Section:	P/N:		Туре:					
12- Suspension	12-04	-1253	Safety Recall					

Ref. NHTSA Recall No.:	Ref. Transport Canada Recall No.:
19V-924	N/A

#### Application:

Coach Model	Model Year	UNIT
D4500 & D4505	2018 - 2020	15097 - 15119, 15149 - 15196, 15204 - 15207, 15260, 15263, 15266, 15269, 15271, 15274, 15322 - 15324, 15348 - 15358, 15376, 15377, 15426, 15430 - 15432, 15439, 15449, 15450, 15456 - 15465, 15467 - 15474, 15477 -15479, 15532 - 15564, 15583, 15584, 15595 - 15608, 15614 - 15618, 15621 - 15707, 15709 - 15715, 15717, 15718, 15720

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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 <u>prior to working</u> in the engine compartment.



# 1.0 Description

## Customer Complaint:

Motor Coach Industries ("MCI") has become aware that on certain 2018 - 2020 D4500 and D4505 model coaches the tag axle steering locking plates mounted to the tag steering tire rod linkage may not be sufficiently clamped and may come loose, possibly resulting in the tag axle becoming unlocked while the coach is in operation.

## Cause:

The causes of the insufficient clamping were determined to be (1) the clamp blocks having paint on the clamping surfaces, (2) the fastener surfaces on the clamp blocks not being machined, and (3) the fastener head surface not being perpendicular to the tie rod clamping surface. The combination of paint on the clamping surface and the fastener head side loading allowed the clamp fasteners to lose torque. This allowed the tie rod to slide in operation when under load. Movement of the tie rod within the lock clamps allowed the tag axle to be offset from the front steering axle.

# **Corrective Action:**

MCI strongly recommends owners of the affected coaches have the following procedure performed as soon as possible.

## 2.0 Material requirements

ITEM	PART NO	QTY	U/M	DESCRIPTION
1	19-1-1439	4	EA	Capscrew- Hex, HD, 1/2NF-20X4.25
2	19-2-284	8	EA	Washer-Flat, 1/2 ID, Steel, ZN Plated, GR8
3	19-3-366	4	EA	Nut, ½-20WNF,GR8, STL Zinc PLT
4	12-04-1153	2	EA	Clamp

# 3.0 Special Tools

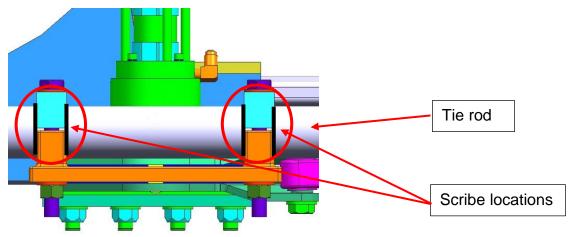
3M Scotch Brite Abrasive sandpaper Loctite 242 (MCI P/N: 21-7212-18) Thread seal (MCI P/N: 15G-1-43) Isopropyl Alcohol (MCI P/N: 23-05-0005)



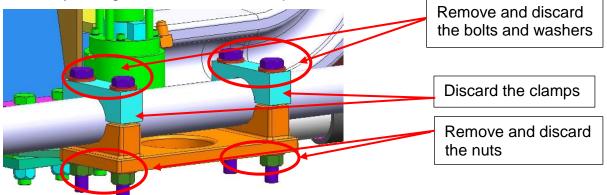
# 4.0 Procedure

#### 4.1 Removing the fasteners

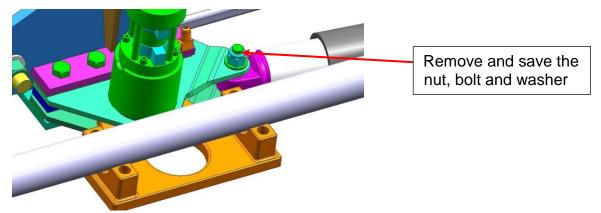
Scribe the location of the clamp and lock plate on the tie rod.



Remove and discard the 4 nuts, bolts and washers securing the clamp to the lock assembly on tag axle. Discard the clamps.

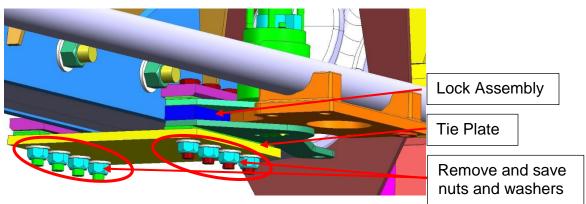


Remove and save the nut, bolt, and washer securing the lock assembly and the damper.

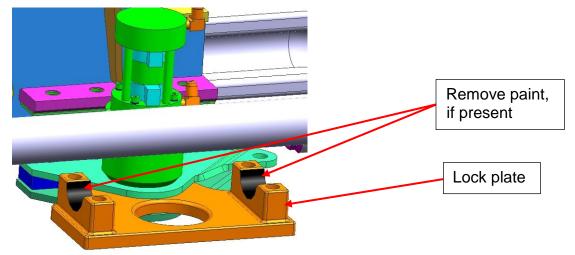




Remove and save the 8 nuts and washers securing the tie plate to the lock assembly and to the axle. Save the tie plate and shims.



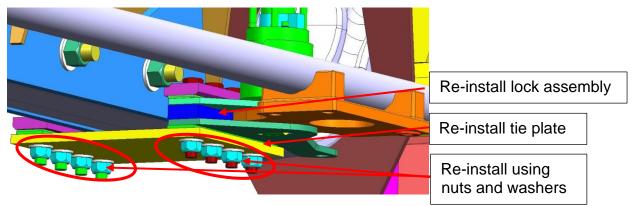
Slide the lock assembly and lock plate down and observe for paint on the lock plate at the location illustrated below. If paint is observed on the surface of the lock plate that clamps the tie rod, use an abrasive paper to remove the paint in that area.



#### 4.2 Torqueing the fasteners

Clean the lock assembly plate with isopropyl alcohol, MCI P/N: 23-05-0005.

Re-install tie plate, lock plate, and lock assembly to the axle at the scribed location using existing nuts, bolts, washers and shims. Torque the nuts to 87 Ft-Lb.

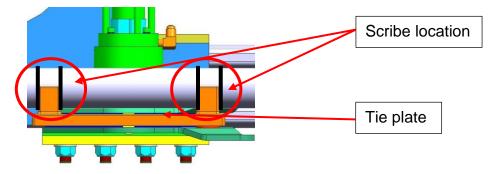




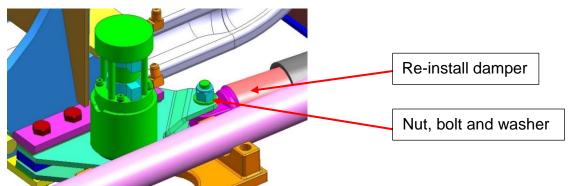


# CAUTION

Make sure to position the lock plate at the scribed location.

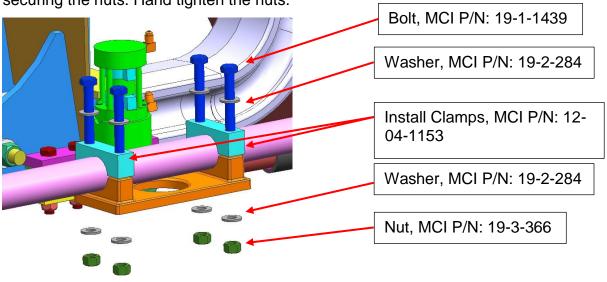


Re-install the damper to the lock assembly using existing hardware. Torque the nut to 87 Ft-Lb.



Clean the clamps, MCI P/N: 12-04-1153, with isopropyl alcohol, MCI P/N: 23-05-0005.

Install the clamps to lock assembly using nuts, MCI P/N: 19-3-366, washers, MCI P/N: 19-2-284, and bolts, 19-1-1439. Apply Loctite to the base threads of the bolts before securing the nuts. Hand tighten the nuts.





Torque the nuts as follows:

Torque fastener #1 to 15 Ft-Lb

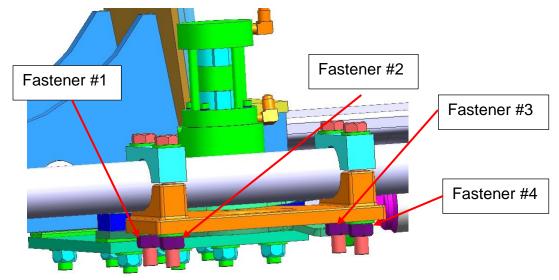
Torque fastener #4 to 15 Ft-Lb

Torque fastener #2 to 15 Ft-Lb

Torque fastener #3 to 15 Ft-Lb

Repeat torqueing the fasteners in the same sequence incrementing torque by 15 Ft-Lb until you reach 75 Ft-Lb.

Apply thread seal once all the fasteners are torqued to 75 Ft-Lb.





# 5.0 Field Change Program Conditions:

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

A labor allowance of 1 hours 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 – O	NE FORM PER UNIT				
FCP#: Coach Model	Model Year				
COACH SERIAL #:	DATE COMPLETED / /				
(At least the last 5 digits)					
MILEAGE:					
IMPORTANT: TO RECEIVE CREDIT FOR AN	Y ALLOWABLE LABOR CHARGES, THIS				
VERIFICATION FORM MUST BE RETURNE FCP					
	•				
SUBMITTED BY: (Please Print)					
	DATE//				
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.