

# SAFETY RECALL

Mack Trucks Inc.  
Greensboro, NC USA



Date	Number	Release	Page
11.2018	<b>SC0413</b>	<b>01</b>	1 (7)

## Steering Shaft Pinch Bolt, Inspection

**AN, GR, PI**

### SAFETY RECALL INFORMATION:

(November 2018)

Mack Trucks Inc. has determined a defect relating to motor vehicle safety may exist in certain Mack AN, GR, and PI trucks manufactured between January 19, 2018 and August 31, 2018. A pinch bolt connecting the upper steering shaft with a universal joint may not have been tightened during assembly of the vehicle. The connection has a secondary measure (bolt shaft engagement in groove in steering shaft) to reduce the chance of separation. However, there is a potential risk that the bolt can come out and result in complete loss of steering and vehicle control. Trucks manufactured between the dates listed above will require an inspection of the steering shaft pinch bolt to determine the condition and status of the yoke to shaft joint.

The process outlined in this recall will provide step by step instructions on how to inspect the steering shaft pinch bolt, and determine what steps to take after the evaluation results. Follow the inspection procedures outlined in this Safety Recall.

Mack Trucks Inc. has received no reports of personal injury as a result of this condition. Therefore, Mack considers this as a proactive measure to protect the public and Mack's customers from the potential risk associated with this defect.

### VEHICLES AFFECTED:

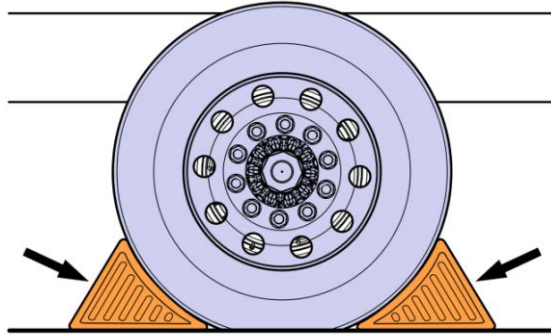
Certain Mack AN, GR, and PI model trucks manufactured from January 19, 2018 through August 31, 2018 are affected by this recall.

### QUANTITY OF VEHICLES AFFECTED:

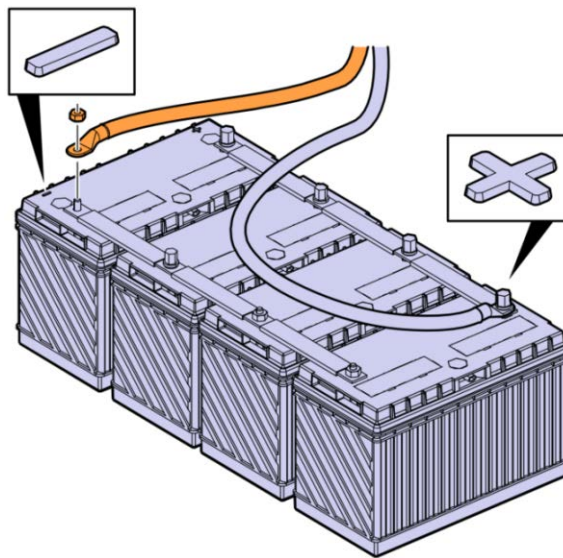
The total number of vehicles affected by this recall is 178 (USA 169, Canada 4, Mexico 2 and Export 3).

### Decommissioning the Truck for Inspection or Repair:

1. Secure the vehicle for service by parking on a flat and level surface, placing the transmission in neutral, applying the parking brake, turning the ignition key to the OFF position, and chocking the front wheels.



2. Disconnect the cable from the battery's negative (ground) terminal.



**REQUIRED PARTS**

<b>NOTE</b>
See <b>Evaluation Results</b> section for selecting the proper repair option and parts.

**Repair Option A**

Replace pinch bolt / nut, and torque to proper specification as listed in this document.

<b>Required Parts for Repair Option A</b>			
<b>Item</b>	<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
1	25106380	Pinch Bolt	1
2	25098472	Lock Nut	1

**Repair Option B**

Replace Output shaft, Steering shaft, pinch bolt / nut, and torque to proper specification as listed in this document.

<b>Required Parts for Repair Option B</b>			
<b>Item</b>	<b>Part Number</b>	<b>Description</b>	<b>Quantity</b>
1	25106380	Pinch Bolt	2
2	25098472	Lock Nut	2
3	See IMPACT	For vehicle specific Output Shaft Service Kit, See IMPACT	1
4	84703023	Steering Shaft	1

<b>NOTE</b>
The Illustrations shown in this document are used for reference only and may differ slightly from the actual vehicle being serviced. However, the inspection procedure is represented as accurately as possible.

## STEERING SHAFT PINCH BOLT INSPECTION

Validate **OK** / **NOT OK** Condition

1. Inspect the condition of the yoke to shaft joint.

NOTE
Figures 1 and 2 below shows the yoke to shaft joint in <b>OK</b> condition.



Figure 1 (**OK** Condition)

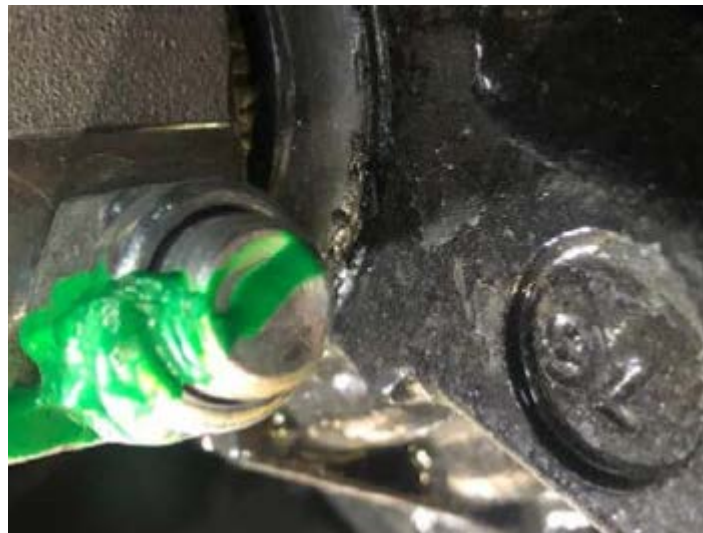


Figure 2 (**OK** Condition)

More Detailed view of protruding threads and tamper proof marking on the nut/bolt

2. If the tamper proof marking is missing or less than 2 threads protrude from outside the lock nut, then it is a **NOT OK** condition.

<b>NOTE</b>
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Figures 3 below shows the yoke to shaft joint in <b>NOT OK</b> condition.
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Figure 3 (**NOT OK** Condition)

## EVALUATION RESULTS

**OK** Condition: Return vehicle to service after documenting inspection results.

**NOT OK** Condition: Use one of the following applicable repair options.

### Repair Option A:

**NOT OK** Condition **and** truck has 999 or less miles on odometer.

1. Replace pinch bolt and lock nut
2. Torque to  $30 \pm 3$  Nm ( $22 \pm 2$  lb-ft) + 90° Turn (This torque **MUST** be used for this safety Recall).

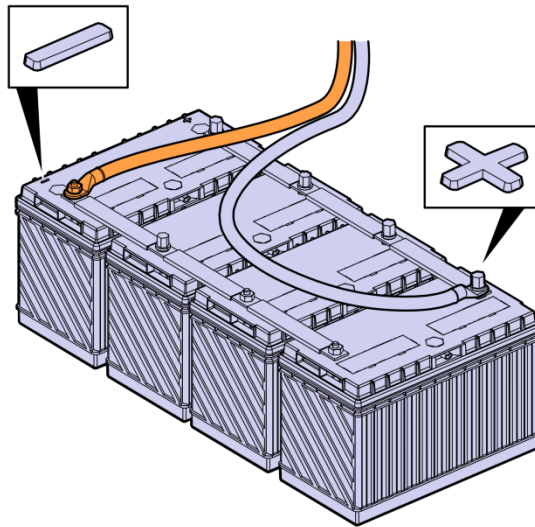
### Repair Option B:

1. **NOT OK** Condition **and** truck has 1000 or more miles on odometer.
2. Replace Output Shaft per service procedure 6412-03-02-08 in IMPACT.
3. Replace Steering Shaft per service procedure 6412-03-02-02 in IMPACT.
4. Replace pinch bolt and lock nut.
5. Torque all pinch bolts to  $30 \pm 3$  Nm ( $22 \pm 2$  lb-ft) + 90° Turn. (This torque **MUST** be used for this safety Recall)

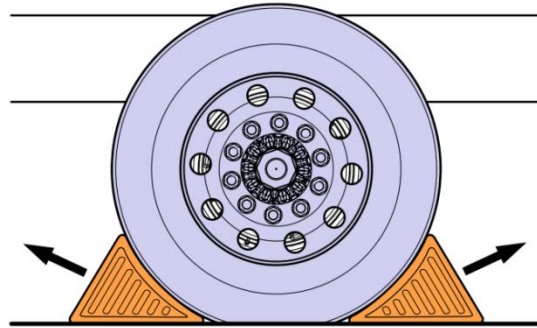
### Commissioning the Truck for Operation:

NOTE
If it is determined the yoke to shaft joint is in <b>OK</b> condition, proceed to step 1 of commissioning the truck for operation.

1. Connect the battery cable to the negative (ground) terminal.



2. Remove the wheel chocks.



**Reimbursement:**

<b>This repair is covered by an authorized Safety Recall campaign. Reimbursement is obtained through the normal claim handling process.</b>	
	<b>UCHP Reimbursement</b>
<b>Claim Type</b> (used only when uploading from the Dealer Business System)	40
<b>Recall Status</b>	
Vehicle repaired per instructions	1-Modified per instructions
<b>Mack Labor Codes</b>	
Primary Labor Code Steering Shaft Pinch Bolt, Inspection	6412-06-02-01 (0.1 hrs)
Labor Code Steering Shaft Pinch Bolt and Nut Replacement	6412-03-09-11 (0.3 hrs)
Labor Code Steering Shaft Output Shaft Replacement	6412-03-02-08 (0.6) hrs 6412-03-02-02 (0.5) hrs
Time to take charge of vehicle and determine campaign status	1700-16-01-01 (0.3 hrs)
<b>Causal Part</b>	25098472
<b>Authorization Number</b>	C6596

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 vehicle repair visit. If the vehicle is having other warranty repairs performed, take-charge should be charged to the warranty repair, otherwise take-charge can be charged to this Safety Recall campaign.