

## Field Service Procedure

# REPLACING TIE ROD END CLAMPS WITH KIT FRK-22-1002 SELECT NON-DRIVE STEER AXLES BUILT 12/16/2021 THROUGH 5/16/2022

## Hazard Alert Messages

Read and observe all hazard alert messages in this publication.

### **DANGER**

Indicates imminent danger. Failure to follow this instruction will result in death or serious injury.

### **WARNING**

Indicates a possibly impending danger. Failure to follow this instruction can result in death or serious injury.

### **CAUTION**

Indicates a hazardous situation or unsafe practice which, if not avoided, could result in injury or damage to components.

## How to Obtain Additional Maintenance, Service and Product Information

Refer to [Maintenance Manual 2, Front Non-Drive Steer Axles](#). To obtain this publication and other Meritor service publications, visit [Literature on Demand at meritor.com](#).

Additional information is also available at [meritorbullpen](#).

For additional assistance, contact the Meritor OnTrac™ Customer Service Center at 866-668-7221 (US and Canada) between 7:30 AM and 10:00 PM ET Monday through Friday, and between 9:00 AM and 6:00 PM ET on Saturday; 001-800-889-1834 (Mexico); or visit our website: [www.meritor.com/warranty](#).

## Tie Rod End Clamp Replacement

This technical bulletin provides procedures for replacing the tie rod end clamps on certain Meritor front non-drive steer axles. Owners will be notified by the manufacturer if their vehicle is eligible for this replacement program.

## Safety Precautions

Before performing the procedures in this publication, read and understand the following safety precautions.

### **DANGER**

Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving. Support the vehicle with safety stands. NEVER work under a vehicle supported only by jacks. Jacks can slip and fall over. Failure to use safety stands can result in death or serious personal injury and damage to components.

### **WARNING**

To prevent eye injury, always wear eye protection when performing vehicle maintenance or service.

## Kit Required

Kit FRK-22-1002 includes the following parts:

- Two clamps
- Two clamp bolts with nuts
- Two tie rod end cotter pins

# Tie Rod End Removal and Installation

For complete tie rod service information, refer to [Maintenance Manual 2, Front Non-Drive Steer Axles](#).

1. Wear safe eye protection. Park the vehicle on a level surface. Block the wheels to prevent the vehicle from moving.
2. Use a jack to raise the front of the vehicle so the wheels are off the ground. Support the vehicle with safety stands.

## ⚠ WARNING

Support the tie rod assembly during maintenance and service to prevent serious personal injury and damage to components.

3. Use a paint pen to mark the position of both tie rod ends as shown. Be sure to mark it well so the tie rod end can be screwed back into the exact same position on the threads. Also count the amount of visible threads to confirm proper depth upon re-installation. Figure 1.

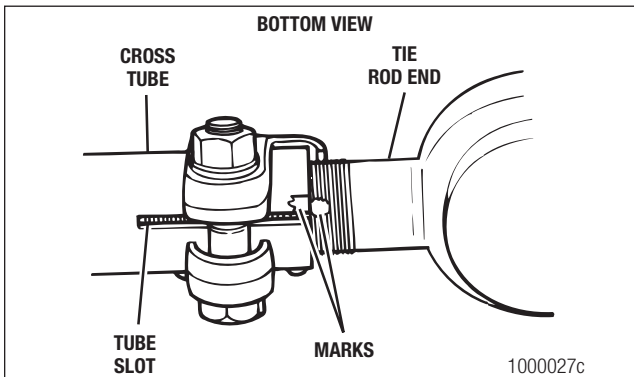


Figure 1

**NOTE:** Perform the clamp retrofit procedure one side at a time.

4. Remove the cotter pin and nut that fastens the tie rod end to the tie rod arm. Figure 2.

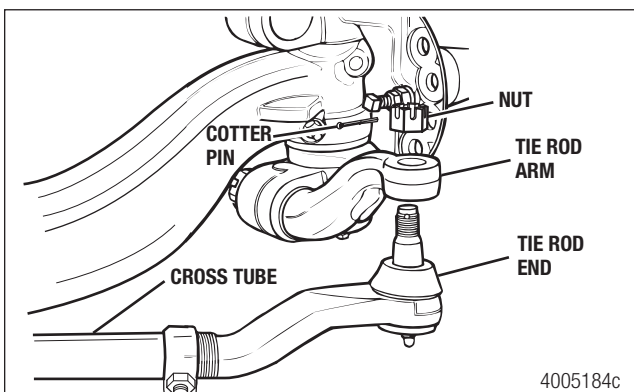


Figure 2



**Meritor Heavy Vehicle Systems, LLC**  
2135 West Maple Road  
Troy, MI 48084 USA  
866-OnTrac1 (668-7221)  
meritor.com

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## ⚠ WARNING

Use a brass or synthetic mallet for assembly and disassembly procedures. NEVER hit steel parts with a steel hammer. Pieces of a part can break off. Serious personal injury and damage to components can result.

## ⚠ CAUTION

Do not heat the tie rod arm to remove the cross tube assembly. Heating the tie rod arm may soften parts. Damage to components will result.

5. Disconnect the cross tube assembly from the tie rod arm. If available, use a tie rod end puller to separate the tie rod end from the tie rod arm. Figure 2. If necessary, use a leather or plastic mallet to tap on the end of the tie rod arm.
6. Remove the tie rod end clamp bolt.
7. Remove the tie rod end out of the cross tube. Rotate counter-clockwise to remove passenger side tie rod end; rotate clockwise to remove driver side tie rod end.
8. Remove the old tie rod end clamp and discard.
9. Slide the new tie rod end clamp into position. Loosely install the nuts and the bolts into the clamps.
10. Thread the tie rod end back into the same position utilizing the paint pen marking. Exposed threads should match the value noted in Step 3.
11. Be sure that the clamp tab is firmly seated against the end of the cross tube. Align the clamp opening with the cross tube slot as shown in Figure 1. Tighten the clamp bolt nut to 150-175 lb-ft (203-237 Nm).
12. Re-install the tie rod into the tie rod arm. Thread the old nut on and tighten to 160-320 lb-ft (216-434 Nm).
13. Install a new cotter pin. If necessary, tighten the nut until the holes are aligned. Do not loosen the nut to install the cotter pin.
14. Repeat for the opposite tie rod end.
15. Use touch-up spray paint to match the original color.
16. Return the vehicle to service.

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