

SERVICE PROCEDURE

22520
SEPTEMBER, 2022

SUBJECT: **SAFETY RECALL**
Tie Rod End Clamps on certain International® HV™ and HX® Series trucks built 11/18/2021 thru 08/04/2022 with feature code 02ARU, 02ARY, 02ARZ, 02ATB, 02AUR, 02AVB, 02AVC, 02AVD, or 02AVE (Meritor Steer Axle) and an additional steering axle installed by Navistar's Truck Specialty Center (TSC).

CUSTOMER LETTER

Print ready (PDF file) copy of the [Customer Letter](#)

DEFECT DESCRIPTION

The tie rod end clamp may crack and, over time, the tie rod end threads can become damaged. In some cases, this may cause the tie rod end to separate. Tie rod end separation may result in an unexpected loss of steering which can increase the risk of a vehicle crash.

MODELS INVOLVED

This safety recall involves certain International® HV™ and International® HX® Series trucks built 11/18/2021 thru 08/04/2022 with feature code 02ARU, 02ARY, 02ARZ, 02ATB, 02AUR, 02AVB, 02AVC, 02AVD, or 02AVE (Meritor Steer Axle) and an additional steering axle installed by Navistar's Truck Specialty Center (TSC).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Navistar Service PortalSM with safety recall 22520. Also complete any other open campaigns listed on the Service Portal at this time.

PARTS INFORMATION

NOTE: Trucks equipped with twin steer axles will require two of P/N 8900325R91.

Part Number	Part Description	Quantity
8900325R91	Kit, Tie Rod End Clamp	1*

8900325R91 contains the following parts:

Part Description	Quantity
Clamp	2
Bolt	2
Nut	2
Cotter Pin	2

NOTE: DO NOT preorder a tie rod assembly. Only order the appropriate tie rod assembly if, during the inspection, threads are damaged on the tie rod end and tie rod tube.

If replacement is required, order the appropriate tie rod assembly based on steer axle part numbers shown in the tables below.

Tie Rod Assembly Only if Required: A13102N4850

Steer Axle Part Number			
3767478C93	4118295C92	4116289C92	4116925C92
3767910C92	3767480C93	3767481C92	3767907C92
3767935C92	3767919C92	3767930C93	3767931C92
4103246C92	3767949C92	4102781C92	4103244C92
4117159C92			

Tie Rod Assembly Only if Required: A13102R4854

Steer Axle Part Number			
3767918C92	3767928C92	3767933C92	3767944C92
3767946C92		3767956C93	

SERVICE PROCEDURE

WARNING! To prevent personal injury and / or death, or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake and install wheel chocks to prevent the vehicle from moving in either direction.

WARNING! To prevent personal injury and / or death, or damage to property, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

WARNING! To prevent personal injury and / or death, or damage to property, allow engine / vehicle components to cool before servicing.

WARNING! To prevent personal injury and / or death, or damage to property, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases.

1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Turn vehicle ignition to Key OFF position.
4. Install wheel chocks.

NOTE: If a tie rod clamp is found cracked or broken during disassembly to install the new clamp, inspect the tie rod end and the tie rod tube for damage to the threads. Replace the tie rod assembly if thread damage is found.

5. Follow the Meritor instructions at the end of this letter to replace tie rod end clamps.

6. If necessary, adjust the toe-in. Refer to the appropriate service information for detailed instruction.
7. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-22520-1	Replace Tie Rod End Clamps; Single Axle	1.2 hrs
A40-22520-2	Replace Tie Rod End Clamps; Two Axles	2.2 hrs

CAMPAIGN IDENTIFICATION LABEL

Each vehicle corrected in accordance with this campaign must be marked with a CTS-1075 Campaign Identification Label.

Complete the label and attach on a clean surface next to the vehicle identification number (VIN) plate.



ADMINISTRATIVE / DEALER RESPONSIBILITIES

WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Safety Recall 22520.

Section 7 of the Warranty Policy and Procedures Manual contains further information related to the submission and processing of AFC / Recall claims.

As with all claim submissions, items acquired locally must be submitted in the "Other Charges" tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

GROUP	NOUN	C	WARR.	TP	PAD

GROUP — Enter number

NOUN — Leave blank

C (CAUSE) — Enter either 1, 2, 3. (See below)

1. Inspected (No repair required).
2. Inspected and repaired.
3. Defective part from parts stock.

WARRANTY — (Warranty Code) Enter 40.

TYPE PART — Enter P for type part causing failure.

PAD — Enter 100

0000047810

UNITED STATES AND POSSESSIONS

The National Traffic and Motor Vehicle Safety Act, as amended, provides that each vehicle that is subject to a vehicle recall campaign must be adequately repaired within a reasonable time after the owner has tendered it for repair. A failure to adequately repair within 60 days after a tender of a vehicle is prima facie evidence of failure to repair within a reasonable time. If the condition is not adequately repaired within 60 days, the owner may be entitled to replacement with an identical or reasonable equivalent vehicle at no charge, or to a refund of the purchase price less a reasonable allowance for depreciation.

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

CANADA

Dealers must correct all vehicles subject to this campaign at no charge to the owner, regardless of mileage, age of vehicle, or ownership, from this time forward.

Dealers should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your dealer location.

Dealers must make every effort to promptly schedule an appointment with each owner to repair his or her vehicle as soon as possible. However, consistent with the customer notification, dealers are expected to complete the repairs on the mutually agreed upon service date.

Dealers involved in the recall process will be furnished a listing of owner names and addresses to enable them to follow up with owners and have the vehicles corrected. Use of this listing must be limited to this campaign because the list may contain information obtained from state motor vehicle registration records, and the use of such motor vehicle registration data for purposes other than this campaign is a violation of law in several states.

EXPORT

Export Distributors should proceed immediately to make necessary correction to units in inventory. All inventory vehicles subject to this recall campaign must be corrected prior to sale, transfer or delivery. If vehicles have been sold or transferred and you are in receipt of Customer Notification Letters and Authorization for Recall Service cards for those vehicles, the transfer location or customer must be notified immediately from your distributor location.

Export Distributors are to submit warranty claims in the usual manner making reference to this recall number.

Export Distributors are expected to provide full cooperation and follow-up with respect to this important subject matter. If you have any questions or need further assistance, please contact the Regional Service Manager at your regional office.

NAVISTAR, INC.

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](https://www.meritor.com/literature-on-demand).

Additional information is also available at [meritorbullpen](https://www.meritorbullpen.com).

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.

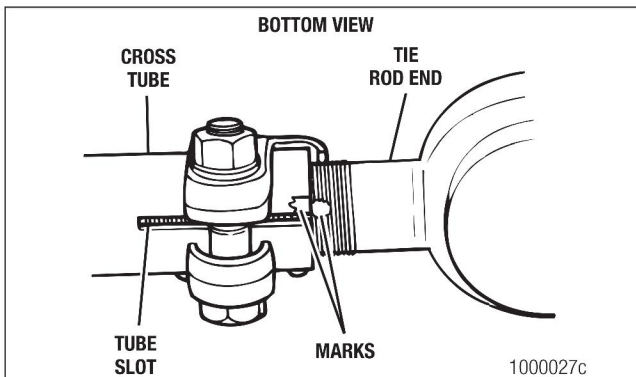


Figure 1

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.

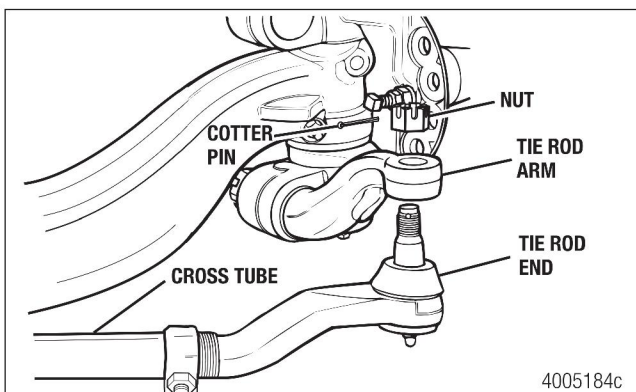


Figure 2



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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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