

SERVICE PROCEDURE

ON ISIS

APR 25 2023

Compliance Dept

23505
APRIL, 2023

SUBJECT: SAFETY RECALL Rear Axle Spring Wedge Shim on certain 2023 International® HV™ Series trucks built 04/29/2022 thru 12/07/2022 and 2023 and 2024 International® MV™ Series trucks built 02/24/2022 thru 01/18/2023 with feature code 14VAD, 14VAG, or 14VAH (Suspension, rear, single with vari-rate springs)

CUSTOMER LETTER

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

DEFECT DESCRIPTION

The rear axle spring wedge shim may have been installed in the incorrect orientation (180-degrees). An incorrectly oriented axle spring wedge shim can result in driveline angles out of specification and can cause premature wear and eventual failure of a U-joint, which could result in drive shaft separation from the vehicle. U-joint failure resulting in drive shaft separation from the vehicle can increase the risk of a vehicle crash that may result in property damage, personal injury, or death.

MODELS INVOLVED

This safety recall involves certain 2023 International® HV™ series trucks built 04/29/2022 thru 12/07/2022 and 2023 and 2024 International® MV™ series trucks built 02/24/2022 thru 01/18/2023 with feature code 14VAD, 14VAG, or 14VAH (Suspension, rear, single with vari-rate springs).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with Safety Recall 23505. Also complete any other open campaigns listed on the Service Portal at this time.

VEHICLE RECALL 23505

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PARTS INFORMATION

Part Number	Part Description	Quantity
144425H	Locknut, 7/8-NF CAD P/T	8
25549R1	Flat Washer	8

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, 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 at front of vehicle.
5. Using a jack, raise the rear of the vehicle and support the frame on jack stands, high enough for the drive axle tires to clear the pavement.
6. Position the jack under the drive axle and raise the axle high enough to relieve some of the leaf spring tension.

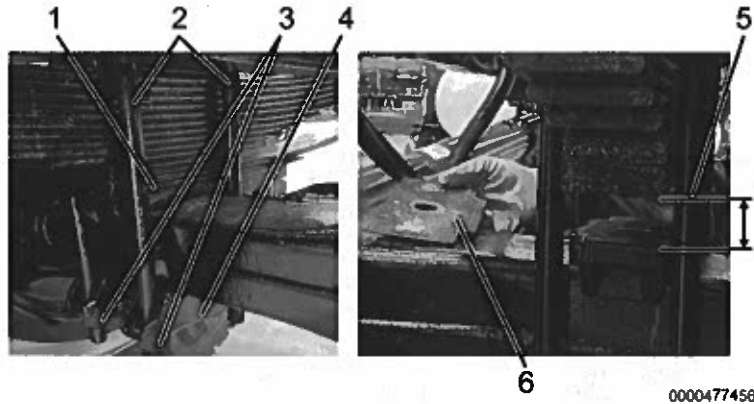


Figure 1. Spring Wedge Shim Orientation

1. Incorrect spring wedge orientation (thin portion facing front)
 2. U-joint bolt (2)
 3. U-bolt nut / washer (4, 2 shown)
 4. Lower axle seat
 5. Gap between leaf spring and axle
 6. Spring shim / wedge shim
7. Starting on driver-side of vehicle, remove four U-bolt nuts and washers (Figure 1, Item 3), and lower axle seat (Figure 1, Item 4). Discard nuts and washers only.
 8. Lower jack to create a gap between leaf spring and axle (Figure 1, Item 5), to allow removal of spring wedge shim (Figure 1, Item 6).
 9. Remove spring wedge shim. If necessary, remove one U-bolt to allow removal of spring wedge shim.

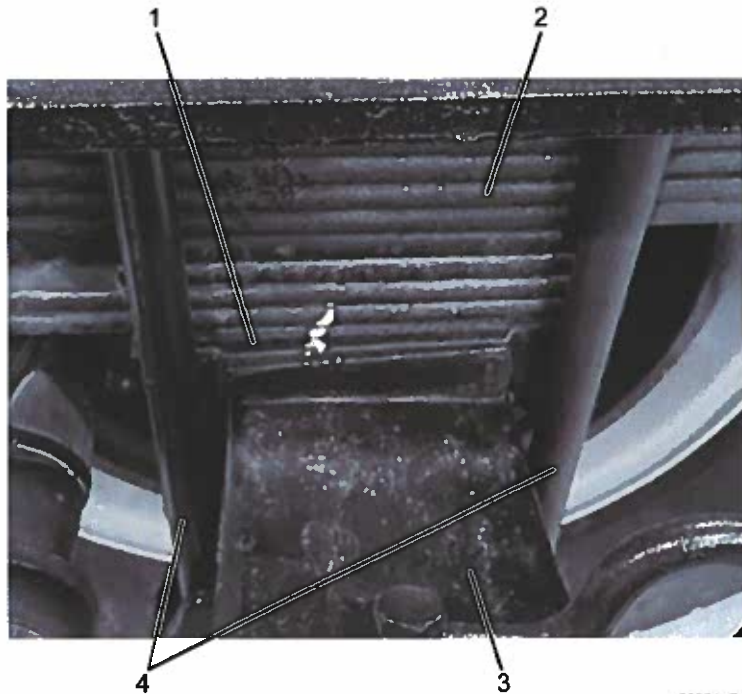


Figure 2. Correct Wedge Shim Orientation

1. Correct orientation of spring wedge (thick portion towards front of vehicle)
2. Leaf spring
3. Axle
4. U-bolt (2)

10. Rotate spring wedge shim 180-degrees to orient thick portion of spring wedge shim towards front of vehicle (Figure 2, Item 1).
11. Reinstall spring wedge shim (Figure 2, Item 1) and if removed in Step 8, reinstall U-bolt (Figure 2, Item 4).

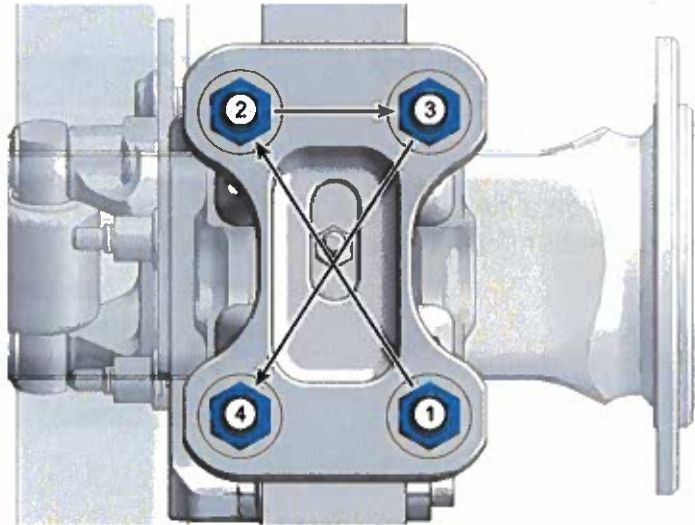
NOTE: When performing Step 12, ensure that spring wedge shim and any spacer shims are properly seated with axle.

12. Using jack, raise axle (Figure 2, Item 3) into position with leaf spring (Figure 2, Item 2) and slightly compress spring.
13. Install lower axle seat.
14. Install four new U-bolt washers and nuts.
15. Repeat Step 7 through Step 14 to correctly orient passenger-side of spring wedge shim.

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NOTE: U-bolt nuts require multiple stages of tightening to ensure proper installation.

NOTE: The torque values are the same for both models for the axles and suspension they are using.



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Figure 3. U-Bolt Torque Sequence

16. Using a torque wrench, tighten U-bolt nuts using torque sequence depicted in Figure 3.
 - a. Tighten nuts to 25 lb-ft (20.3 N·m) using diagonal pattern.
 - b. Tighten nuts to 75 lb-ft (102 N·m) using diagonal pattern.
 - c. Tighten Nuts to 150 lb-ft (203 N·m) using diagonal pattern.
 - d. Tighten nuts to 225 lb-ft (305 N·m) using diagonal pattern.
 - e. Tighten nuts to 290 lb-ft (407 N·m) using diagonal pattern.
17. Repeat Step 16 for opposite side.
18. Using a jack, raise rear of vehicle, remove jack stands, and lower vehicle.
19. Remove wheel chocks.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-23505-1	Reorient spring wedge shim; both sides	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.



The image shows a rectangular campaign identification label with a black border. At the top and bottom, it says "DO NOT REMOVE". The label is divided into sections for "INTERNATIONAL" (with a small logo), "Campaign No.", "VIN", "Eng.#", "COMPLETED", and "Service Location Code #".

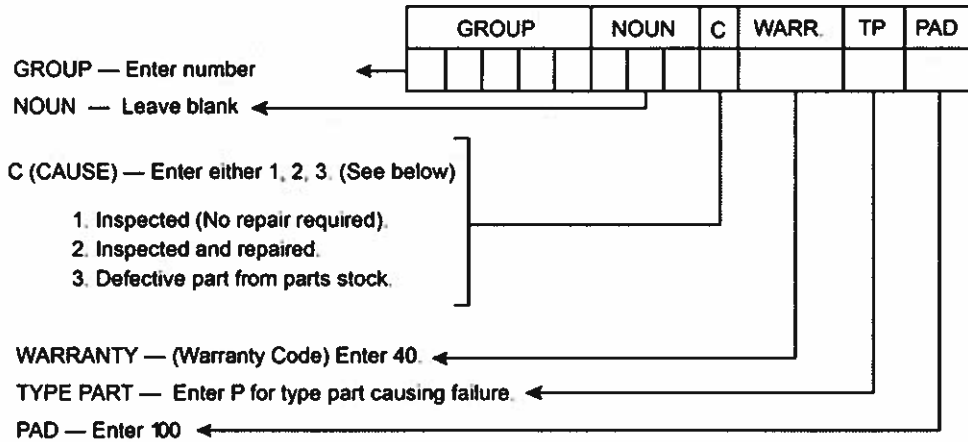
ADMINISTRATIVE / DEALER RESPONSIBILITIES

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 23505.

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.



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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.

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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.

