

SERVICE PROCEDURE

ON ISIS

OCT 16 2023

Compliance Dept

23520

October, 2023

SUBJECT: SAFETY RECALL

Driveshaft sections on certain 2023 International® HV™ Series trucks built 08/19/2022 thru 09/27/2022 and certain 2023 International® MV™ Series trucks built 07/26/2022 through 12/13/2022 with Feature Code 06DGA or 06DGJ (Dana Service Free SPL100 drive line system).

CUSTOMER LETTER

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

DEFECT DESCRIPTION

The specified driveshafts, because of the supplier's use of nonconforming material in its production processes, do not meet specification and can separate in certain high loading conditions. A driveshaft that separates can result in an unexpected loss of motive power. A driveshaft that separates and results in loss of motive power could increase the risk of a vehicle crash.

MODELS INVOLVED

This safety recall involves certain 2023 International® HV™ Series trucks built 08/19/2022 thru 09/27/2022 and certain 2023 International® MV™ Series trucks built 07/26/2022 through 12/13/2022 with Feature Code 06DGA or 06DGJ (Dana Service Free SPL100 drive line system).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with Safety Recall 23520. Also complete any other open campaigns listed on the Service Portal at this time.

TOOLS REQUIRED

Part Number	Tool Description	Quantity
N/A	Heavy Lifting Device	1
N/A	Ratchet Strap	As Needed

VEHICLE RECALL 23520

PARTS INFORMATION

NOTE: Use the following link and type either the 8-digit chassis number or the 17-digit vehicle identification number into the search box. Click the search button to obtain a list of parts and SRTs to complete the ordering process.

[Recall 23520 – Driveshaft Replacement](#)

NOTE: To reduce customer downtime, order necessary driveshaft sections by chassis number once you have a confirmed appointment.

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.

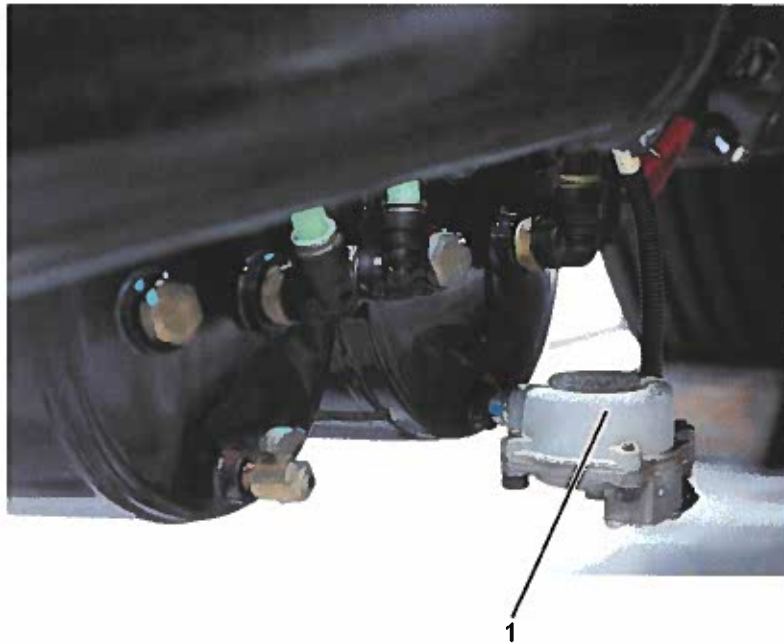
WARNING! To prevent personal injury and / or death, or damage to property, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

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 components in engine compartment to cool before servicing engine or vehicle.

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.



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Figure 1. Automatic Drain Valve Location

1. Automatic drain valve

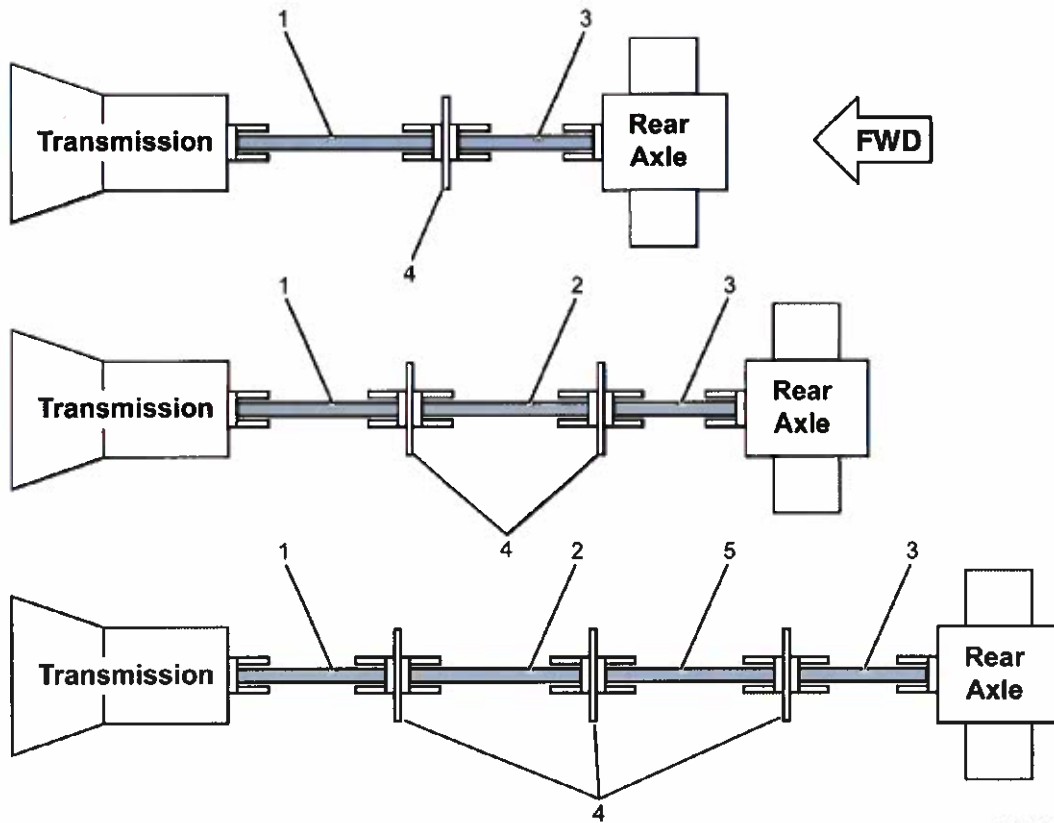
5. If vehicle is equipped with an automatic drain valve (Figure 1, Item 1) in one of the air tanks, drain air system, and remove automatic drain valve from air tank.

NOTE: Use the following link and type either the 8-digit chassis number or the 17-digit VIN number into the search box. Click the search button to obtain a list of the specific driveshaft sections to be replaced on the vehicle you are working on.

Recall 23520 – Driveshaft Replacement

NOTE: Procedure is divided into 2 sections for replacing driveshafts. If more than one driveshaft is replaced on a vehicle, follow the appropriate driveshaft procedures for the sections to be replaced.

- For replacement of driveshaft positions 1, 2, and 5, perform steps starting with Step 6.
- For replacement of driveshaft position 3, perform steps starting with Step 19.

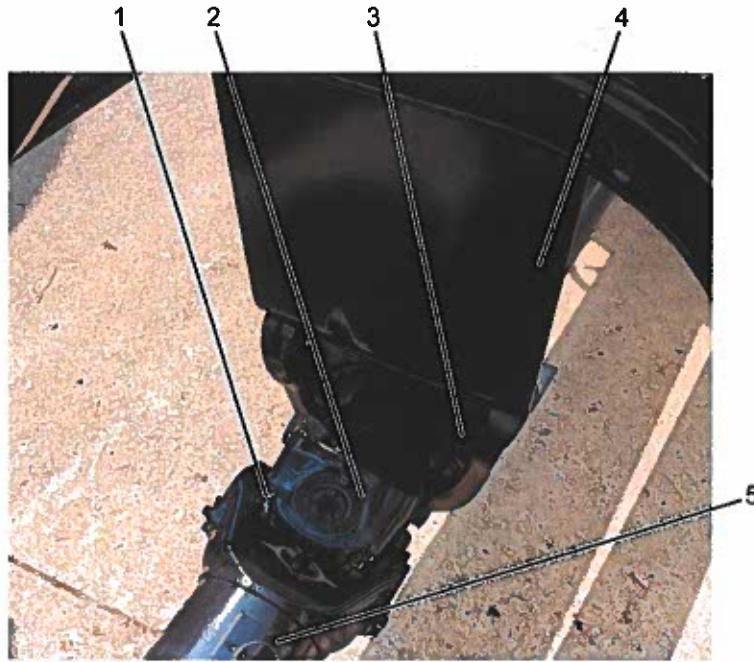


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Figure 2. Driveshaft Position

- 1. Driveshaft position 1
- 2. Driveshaft position 2
- 3. Driveshaft position 3
- 4. Center bearing
- 5. Driveshaft position 5

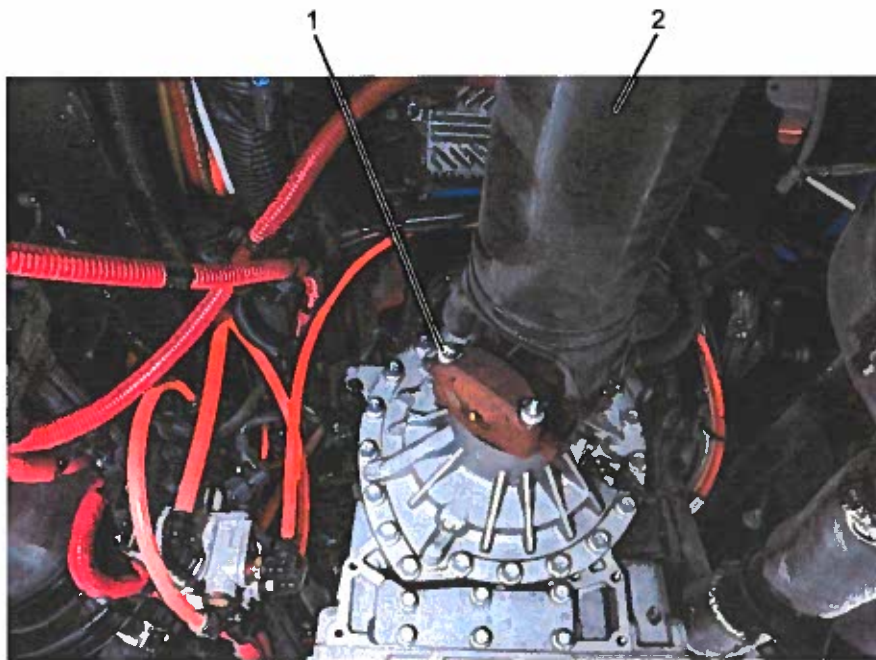
IMPORTANT: Driveshaft Section Replacement Procedure for Driveshaft Positions 1, 2, and 5



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Figure 3. U-joint Connection

1. U-joint strap (2) / bolts (4)
2. Driveshaft
3. Center bearing
4. Mounting bracket
5. Next driveshaft



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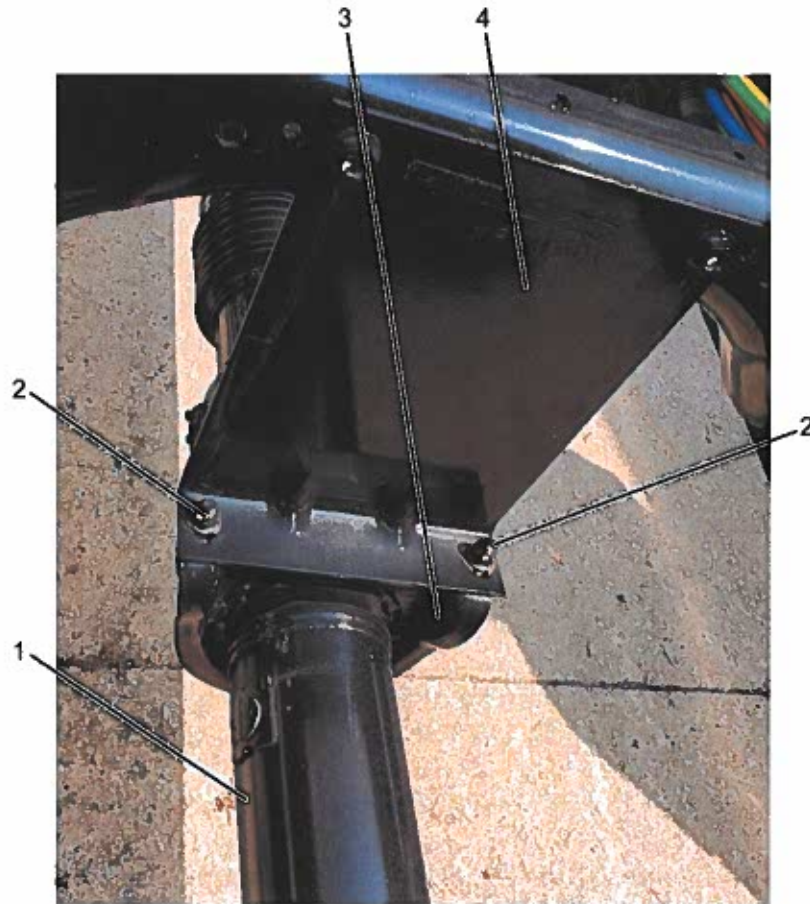
Figure 4. U-joint Connection

1. U-joint strap (2) / bolts (4)
2. Driveshaft

6. Begin procedure at most forward driveshaft that requires replacement.

WARNING! To prevent personal injury and / or death, or damage to property, confirm driveshafts secured / supported properly during removal.

7. Support front and rear of driveshaft to be replaced.
8. Support front of driveshaft behind the driveshaft being replaced.
9. Remove U-joint straps / bolts (Figure 3, Item 1 or Figure 4, Item 1) from the U-joint yoke (Figure 3, Item 2 or Figure 4, Item 1) on both ends of the driveshaft being replaced. Discard old U-joint straps and bolts.



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Figure 5. U-joint Connection

1. Driveshaft to be replaced
2. Center bearing mounting bolt (2) and nut (2)
3. Center bearing
4. Center bearing mounting bracket

WARNING! To prevent personal injury and / or death, or damage to property, secure driveshaft to lifting device with ratchet straps and utilize the lifting device to lower old driveshaft to ground.

10. Remove center bearing mounting nuts and bolts (Figure 5, Item 2) that secure the center bearing (Figure 5, Item 3) to its mounting bracket (Figure 5, Item 4). Save nuts and bolts for reuse.

WARNING! To prevent personal injury and / or death, or damage to property, secure driveshaft to lifting device with ratchet straps and utilize the lifting device to raise new driveshaft into position.

11. Lower driveshaft and remove from under vehicle.
12. Place new driveshaft under vehicle.
13. Lift new driveshaft into position. Insert forward driveshaft U-joint into forward yoke and install new U-joint straps and bolts at the forward yoke.
14. Raise rear of driveshaft, insert rear yoke into forward U-joint of the driveshaft that is behind the driveshaft being replaced, and align center bearing with crossmember mounting bracket. Install nuts and bolts removed during Step 10.
15. Using torque wrench, tighten center bearing bolts and nuts (Figure 5, Item 1) to 65-79 lb-ft (88-108 N·m)
16. Using torque wrench, tighten the forward U-joint strap bolts (Figure 3, Item 1 or Figure 4, Item 1) to 52 lb-ft (70 N·m).
17. Check vehicle VIN to confirm if additional driveshafts need replacement.
 - a. If the connecting driveshaft with center bearing DOES need to be replaced, complete Steps 7 through 16 for each shaft.
 - b. If the connecting driveshaft with center bearing DOES NOT need to be replaced, proceed to next step.
18. Using torque wrench, tighten all remaining U-joint strap bolts (Figure 3, Item 1) to 52 lb-ft (70 N·m).
19. Check vehicle VIN to confirm if position 3 driveshaft (Figure 6, Item 5) requires replacement.
 - a. If NO and position 3 driveshaft does not require replacement, proceed to Step 25.
 - b. If YES and position 3 driveshaft requires replacement, proceed to next step.

IMPORTANT: Driveshaft Section Replacement Procedure for Driveshaft Position 3



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Figure 6. U-joint Connection

1. U-joint strap (2) / bolts (4)
2. Driveshaft yoke
3. Center bearing
4. Center bearing bracket
5. Position 3 driveshaft

WARNING! To prevent personal injury and / or death, or damage to property, secure driveshaft to lifting device with ratchet straps and utilize the lifting device to raise new driveshaft into position.

20. Support front and rear of position 3 driveshaft which is connected to the rear axle.

21. Remove U-joint strap / bolts (Figure 6, Item 1) from U-joint yoke of driveshaft section that is connected to the center bearing (Figure 6, Item 3). Discard old U-joint straps and bolts.
22. Remove U-joint strap / bolts from U-joint yoke at the rear axle. Discard old U-joint straps and bolts. Lower driveshaft and remove from under vehicle.
23. With slip shaft of new driveshaft pointed towards the front of the vehicle, lift driveshaft into position. Install U-joint into yoke on the rear axle and forward driveshaft. Install new U-joint straps and bolts.
24. Using torque wrench, tighten U-joint strap bolts (Figure 6, Item 1) to 52 lb-ft (70 N·m).
25. Confirm all U-joints are properly seated into the yoke, all replaced U-joint strap bolts are torqued, and all center bearing mounting hardware that was removed and reinstalled are torqued to specification.

WARNING! To prevent personal injury and / or death, or damage to property, destroy removed driveshaft to avoid any possible future reuse. It is recommended to cut removed driveshaft in half.

26. If automatic drain valve (Figure 1, Item 1) was removed at beginning of procedure, using thread sealing tape, wrap the automatic drain valve threads several times and reinstall onto air tank.
27. If air system was drained, start engine, and build air pressure to full system pressure.
28. Turn vehicle ignition to Key OFF position.
29. Inspect for air leaks at automatic drain valve.
30. Remove wheel chocks.
31. Using either a torch or cutting wheel, destroy removed driveshaft or driveshafts by cutting component completely in half.

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-23520-1	Replace and Destroy One Shaft Section	1.8 Hrs.
A40-23520-2	Replace and Destroy Two Shaft Sections	2.9 Hrs.
A40-23520-3	Replace and Destroy Three Shaft Sections	4.0 Hrs.
A40-23520-4	Replace and Destroy Four Shaft Sections	4.5 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.



DO NOT REMOVE

INTERNATIONAL

Campaign No.

VIN
Eng.#

COMPLETED

Service Location Code #

DO NOT REMOVE

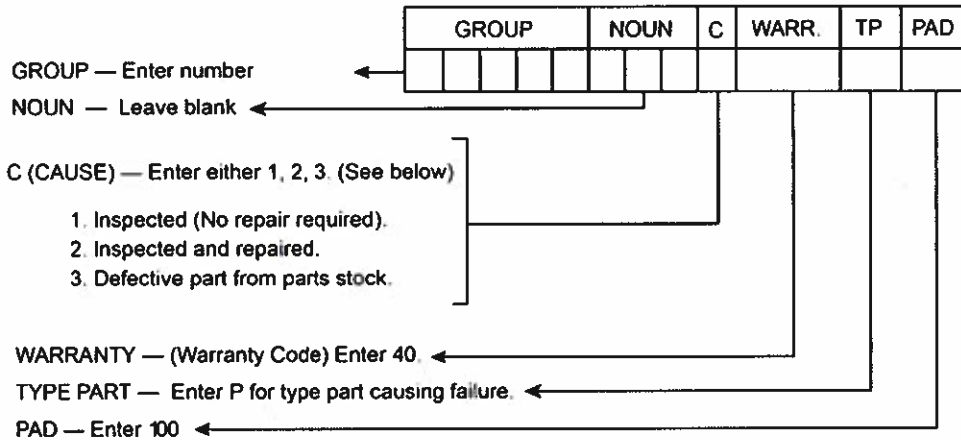
ADMINISTRATIVE / DEALER RESPONSIBILITIES

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 23520.

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. Federal law prohibits a dealer from delivering under a sale or lease, a new motor vehicle or any new or used item of motor vehicle equipment (including a tire) covered by the notification of a recall until the defect or noncompliance is remedied.

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.

VEHICLE RECALL 23520

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.

