

# SERVICE PROCEDURE

ON ISIS

JUN 29 2023

Compliance Dept

23513  
June, 2023

**SUBJECT:** SAFETY RECALL  
Driveshaft Tube on certain 2023 International® MV™ Series trucks built 07/28/2022 thru 07/29/2022 with feature code 06DGJ (Dana Service Free SPL100 drive line system)

## **CUSTOMER LETTER**

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

## **DEFECT DESCRIPTION**

The weld of the driveshaft tube seam, under certain stress loads, may separate or tear and result in drive line separation and unexpected loss of motive power. A drive line that separates and results in unexpected loss of motive power could increase the risk of a vehicle crash.

## **MODELS INVOLVED**

This safety recall involves certain 2023 International® MV™ Series trucks built 07/28/2022 thru 07/29/2022 with feature code 06DGJ (Dana Service Free SPL100 drive line system).

## **ELIGIBILITY**

This procedure applies ONLY to vehicles marked in the International® Service Portal<sup>SM</sup> with Safety Recall 23513. 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

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### VEHICLE RECALL 23513

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## PARTS INFORMATION

The following VINs with Feature Code 506102 ONLY require the 2nd shaft and 2 strap kits; PL250271, PL250353, PL250446, PL250464, PL250466, PL250468, PL250470, PL250498, PL253067 and 4PL390941.

All other VINs with Feature Codes 506102 and 506103 require both the 2nd and 5th shafts and 3 strap kits.

Part Number	Part Description	Quantity
DS100CS54004G1045M	Driveshaft, one section	2nd Shaft
1685128C91	Strap Kit, U-joint, Driveshaft	2

Part Number	Part Description	Quantity
DS100CS54004G1045M	Driveshaft, one section	2nd Shaft
DS100CS54001G885M	Driveshaft, one section	5th Shaft
1685128C91	Strap Kit, U-joint, Driveshaft	3

## 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.

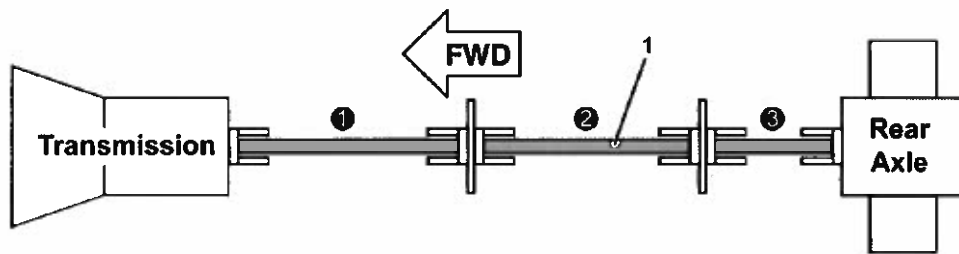
**WARNING!** To prevent personal injury and / or death, or damage to property, allow components in engine compartment to cool before servicing engine or vehicle.

**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.

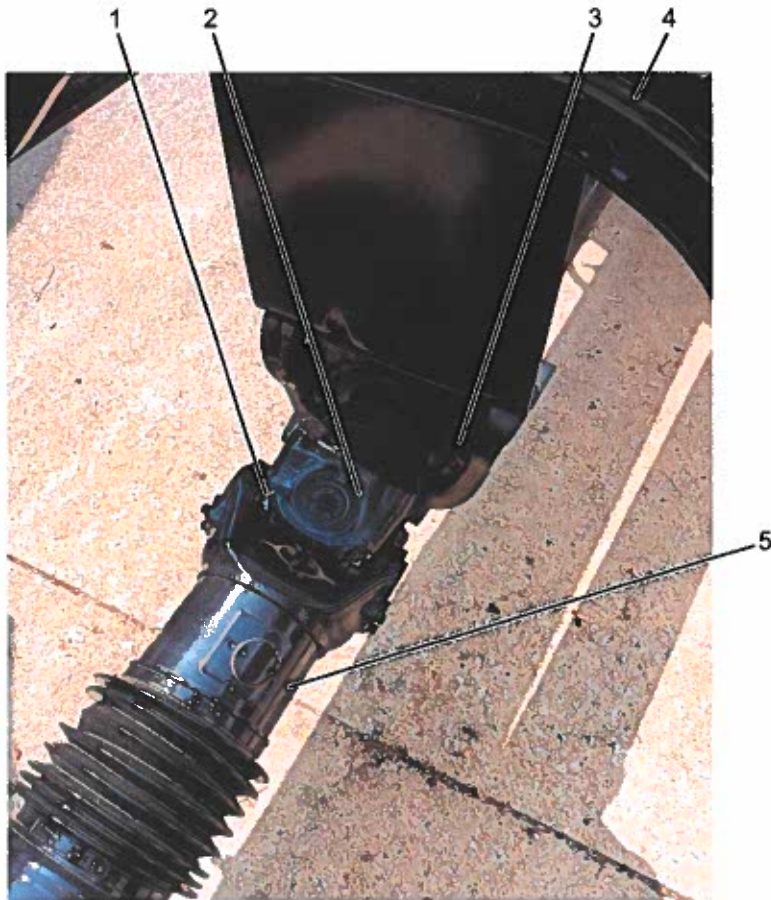
**NOTE: Steps 5 through 17 are for vehicles requiring replacement of only the coupling driveshaft section with center bearing mounted to front of second crossmember. Steps 18 through 33 are for trucks requiring replacement of the coupling driveshaft sections with center bearing mounted to front of both the second and third crossmembers.**

## **ONE DRIVESHAFT SECTION REPLACEMENT PROCEDURE**



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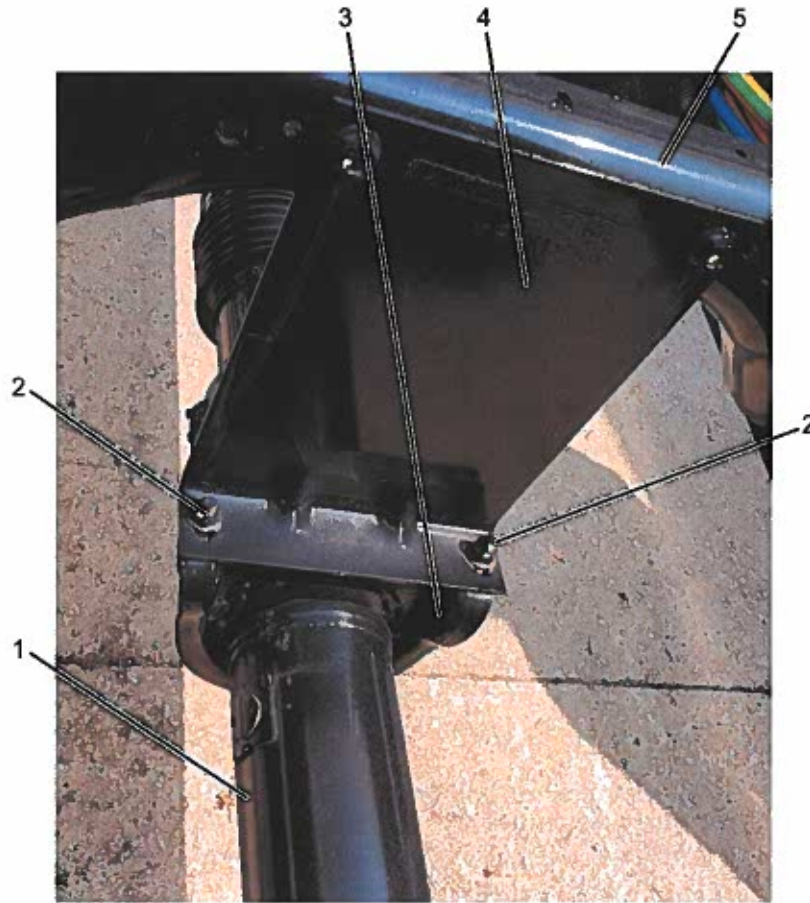
**Figure 1. 4x2, 2 Center Bearing Layout**  
1. Driveshaft section to be replaced



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### Figure 2. U-joint Connection

1. U-joint strap / bolts (one pictured)
  2. U-joint yoke
  3. Center bearing
  4. Second crossmember
  5. Slip shaft driveshaft
- 
5. Remove U-joint straps / bolts (Figure 2, Item 1) from the U-joint yoke (Figure 2, Item 2) of the coupling driveshaft section with the center bearing (Figure 2, Item 3) mounted to the front of the second crossmember (Figure 2, Item 4). Discard old U-joint straps and bolts.
  6. Disconnect slip shaft driveshaft section (Figure 2, Item 5) from U-joint yoke and carefully lower to ground.



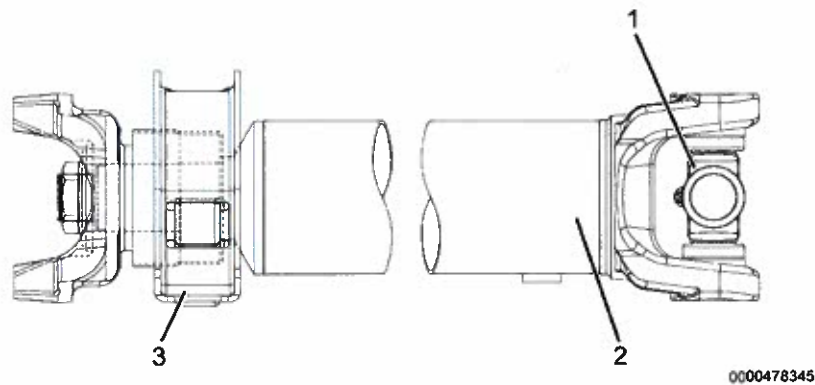
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### Figure 3. U-joint Connection

1. Coupling driveshaft
2. Nut and bolt (2)
3. Center bearing
4. Mounting bracket
5. Second crossmember

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

7. Support coupling driveshaft (Figure 3, Item 1) section to be replaced.
8. Remove nuts and bolts (Figure 3, Item 2) that secure center bearing (Figure 3, Item 3) to its mounting bracket (Figure 3, Item 4) on front of second crossmember (Figure 3, Item 5). Save nuts and bolts for reuse.



**Figure 4. Driveshaft**

1. U-joint strap / bolt location (4)
2. Driveshaft
3. Center bearing

9. Remove U-joint strap / bolts (Figure 4, Item 1) from U-joint yoke of coupling driveshaft section with center bearing (Figure 4, Item 3) mounted to front of second crossmember. Discard old U-joint straps and bolts.
10. Lower driveshaft and remove from under vehicle.

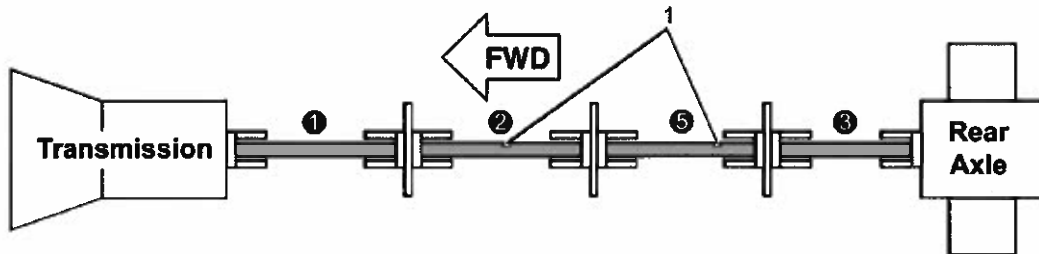
**WARNING!** To prevent personal injury and / or death, or damage to property, destroy removed driveshaft to avoid any possible future reuse. It is recommended to cut removed driveshaft in half.

11. Using either a torch or cutting wheel, destroy removed driveshaft by cutting it completely in half.

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

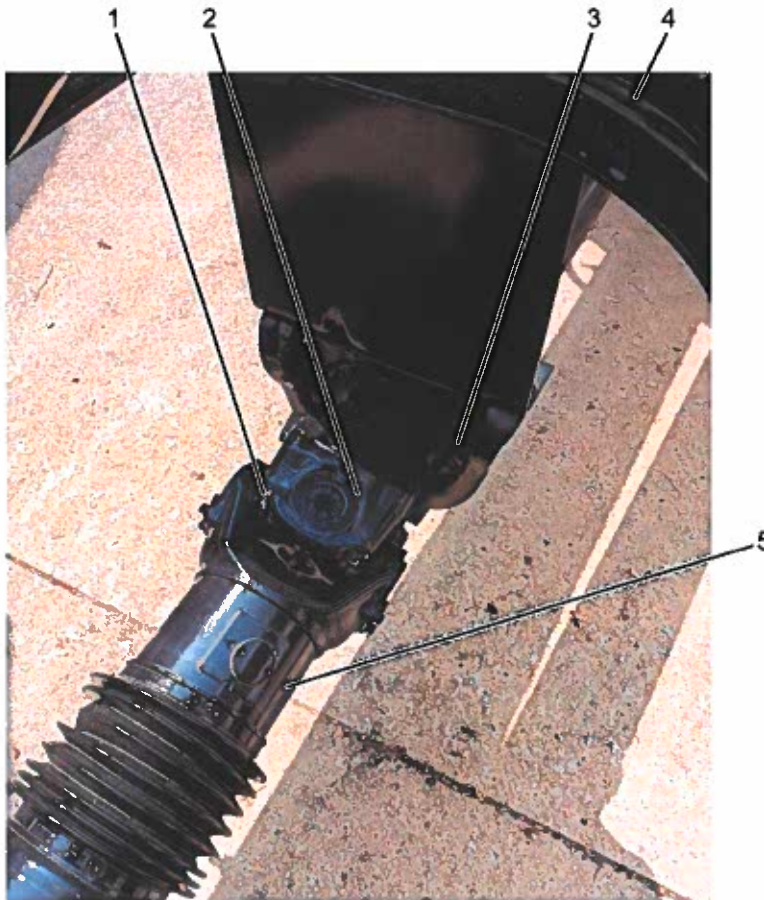
12. Lift new coupling driveshaft into position. Install new U-joint straps and bolts.
13. Using torque wrench, tighten U-joint strap bolts (Figure 4, Item 1) to 52 lb-ft (70 N·m).
14. Position center bearing in place and align it to the second crossmember mounting bracket. Install nuts and bolts removed in Step 8.
15. Using torque wrench, tighten crossmember mounting bracket bolts and nuts to 65 to 79 lb-ft (88 to 108 N·m).

16. Properly insert U-joint of slip shaft driveshaft into U-joint yoke of coupling driveshaft and install new U-joint straps and bolts.
17. Using torque wrench, tighten U-joint strap bolts (Figure 4, Item 1) to 52 lb-ft (70 N·m). Proceed to Step 34.



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**Figure 5. 4x2, 3 Center Bearing Layout**  
1. Driveshaft section to be replaced



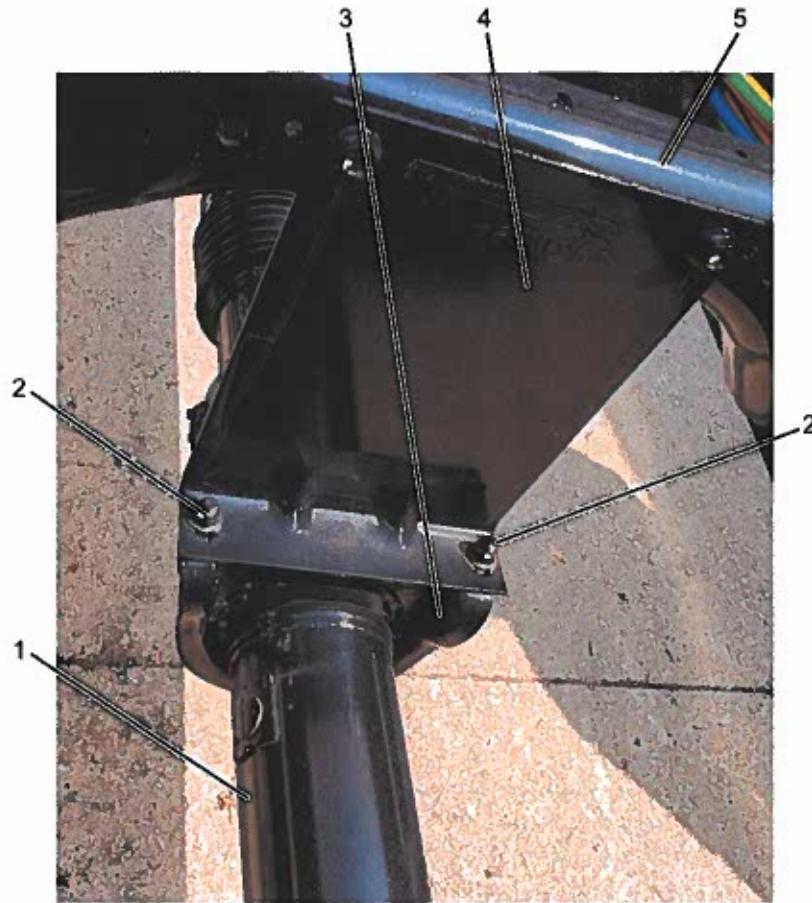
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**Figure 6. U-joint Connection**

1. U-joint strap / bolts (one pictured)
2. U-joint yoke
3. Center bearing
4. Third crossmember
5. Slip shaft driveshaft

18. Disconnect U-joint straps / bolts (Figure 6, Item 1) from driveshaft yoke (Figure 6, Item 2) of the coupling driveshaft section with center bearing (Figure 6, Item 3) mounted to front of third crossmember (Figure 6, Item 4). Discard bolts and straps.
19. Remove slip shaft driveshaft (Figure 6, Item 5) from U-joint yoke and carefully lower to the ground.





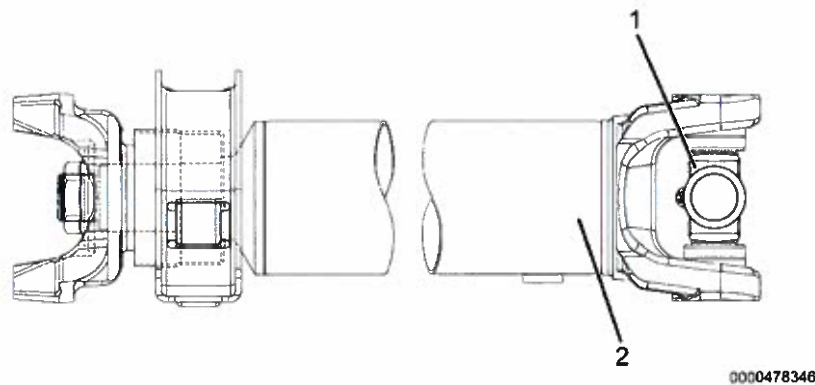
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**Figure 7. U-joint Coupling Driveshaft**

1. Coupling driveshaft
2. Nut and bolt (2)
3. Center bearing
4. Mounting bracket
5. Third crossmember

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

20. Support coupling driveshaft (Figure 7, Item 1).
21. Remove nuts and bolts (Figure 7, Item 2) that secure the coupling driveshaft center bearing (Figure 7, Item 3) to the mounting bracket (Figure 7, Item 4) on the front of the third crossmember (Figure 7, Item 5). Save nuts and bolts for reuse.



**Figure 8. Driveshaft**

1. U-joint strap / bolt location (4)
2. Coupling driveshaft

22. Remove U-joint straps / bolts (Figure 8, Item 1) that connect the coupling driveshaft (Figure 8, Item 2) to the next forward driveshaft. Discard old joint straps and bolts.
23. Lower coupling driveshaft (Figure 7, Item 1) and remove from under vehicle.

**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.

24. Using either a torch or cutting wheel, destroy removed driveshaft by cutting it completely in half.

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

25. Perform Steps 7 through 15 to replace coupling driveshaft (Figure 7, Item 1) with center bearing connected to second crossmember.
26. Lift new coupling driveshaft into position with center bearing to be fastened to mounting bracket on third crossmember.
27. Carefully insert U-joint of coupling shaft into the U-joint yoke of next forward driveshaft section and install new U-joint straps and bolts.
28. Using torque wrench, tighten U-joint strap bolts (Figure 8, Item 1) to 52 lb-ft (70 N·m).

29. Position center bearing (Figure 7, Item 3) in place and connect it to third crossmember mounting bracket (Figure 7, Item 4) with nuts and bolts removed in Step 21.
30. Using torque wrench, tighten crossmember mounting bracket nuts (Figure 7, Item 2) to 65 to 79 lb-ft (88 to 108 N·m).
31. Properly lift front of new slip shaft driveshaft into position.
32. Properly insert U-joint of slip shaft driveshaft into the U-joint yoke of the coupling driveshaft and install new U-joint straps and bolts.
33. Using torque wrench, tighten U-joint strap bolts (Figure 8, Item 1) to 52 lb-ft (70 N·m).
34. Remove wheel chocks.

## END OF SERVICE PROCEDURE

### LABOR INFORMATION

Operation Number	Description	Time
A40-23513-1	Replace One Driveshaft Section	1.0 Hrs.
A40-23513-2	Replace Two Driveshaft Sections	2.0 Hrs.
A40-23513-3	Destroy One Driveshaft Section	0.5 Hrs.
A40-23513-4	Destroy Two Driveshaft Sections	1.0 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**

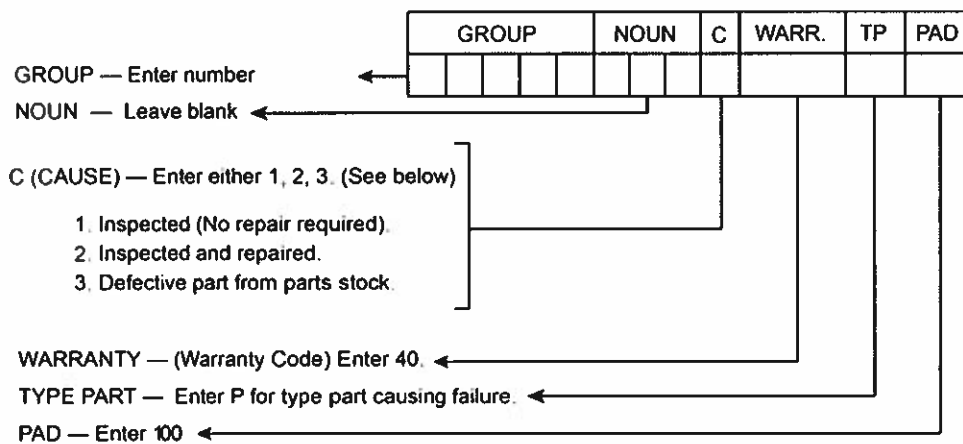
## ADMINISTRATIVE / DEALER RESPONSIBILITIES

### 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 23513.

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.

## **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.**