

SERVICE PROCEDURE

18517

DECEMBER 2018

SUBJECT: SAFETY RECALL
Brake Air Line Tubing on certain IC BUS® CE Series school bus models built 25 January 2018 thru 10 October 2018 with feature code 04AZS (4-channel Antilock Brakes [ABS], 4-channel Electronic Stability, and Automatic Traction Control)

DEFECT DESCRIPTION

The brake air line tube from the relay valve port to the left brake modulator valve may be improperly routed, resulting in a kinked air line. A kinked air line may result in the vehicle pulling to the right during braking or improper operating of the modulating valve during an ABS event. A vehicle pulling to the right during braking or improper ABS modulation could make it more difficult for the driver to maintain their line, which could result in loss of control or a vehicle crash.

MODELS INVOLVED

This safety recall involves certain IC Bus® CE Series school bus models built 25 January 2018 thru 10 October 2018 with feature code 04AZS (4-channel ABS, 4-channel Electronic Stability, and Automatic Traction Control).

ELIGIBILITY

This procedure applies ONLY to vehicles marked in the International® Service Portal™ with Safety Recall 18517. Also complete any other open campaigns listed on the Service Portal at this time.

PARTS INFORMATION

Part Number	Part Description	Quantity
417200C3	Tube; Nylon Bulk, 1/2 OD	9 ft
475411C1	Extension Clip; Z Style	1
2041341C1	Saddle Clamp Cable Lock MT 1/4	1
306132C1	Strap; Cable Lock	2

SERVICE PROCEDURE

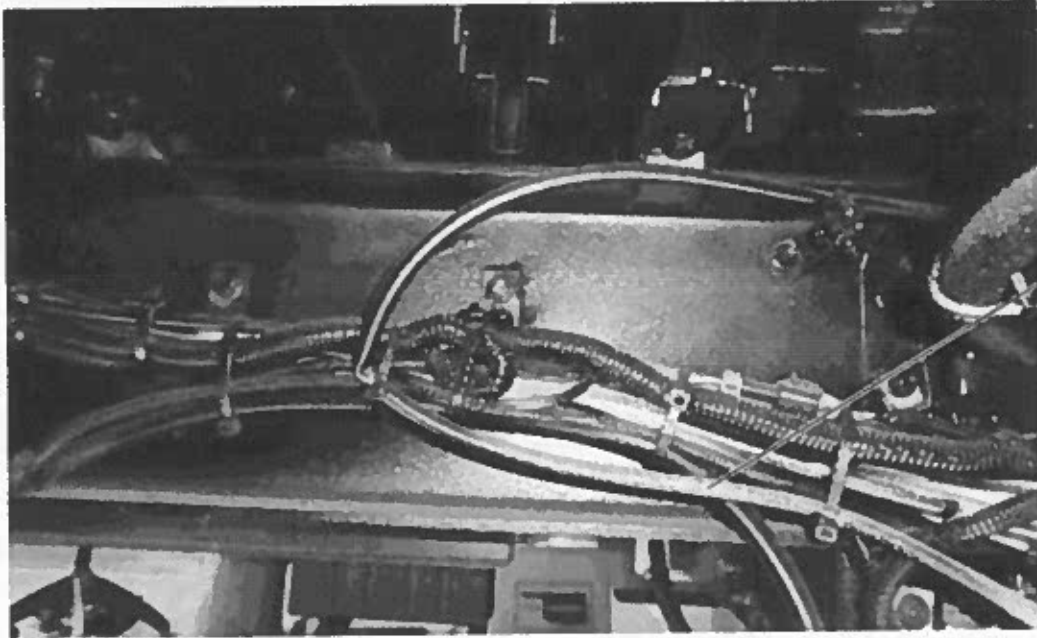
WARNING! To prevent personal injury, and / or death, or property damage, park the vehicle on hard flat surface, turn the engine off, set the parking brake, and place chocks in front of, and behind, the wheels to prevent the vehicle from moving in either direction.

WARNING! To prevent personal injury, and / or death, or property damage, 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.

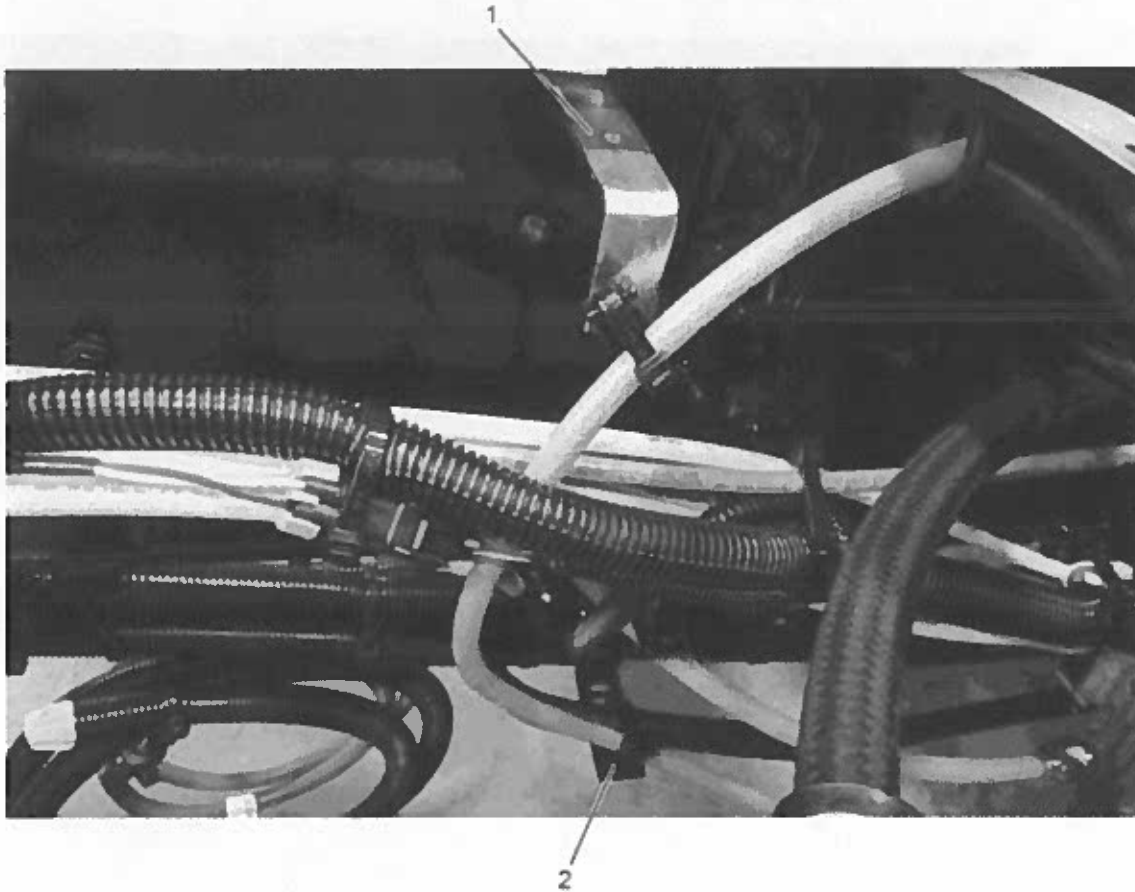
WARNING! To prevent personal injury, and / or death, or property damage, allow engine / vehicle components to cool before servicing.

1. Park vehicle on flat surface.
2. Shift transmission to Park or Neutral and set parking brake.
3. Place chocks in front of and behind the wheels.



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Figure 1. Incorrect Routing
1. Synflex tube

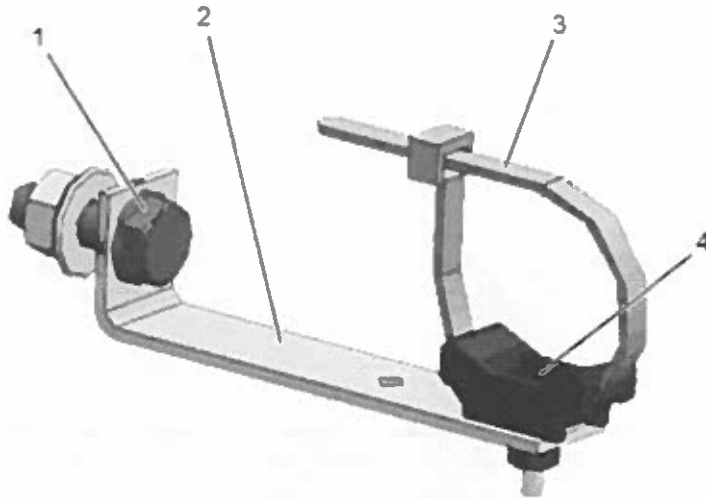


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Figure 2. Correct Routing

1. Z style extension clip
2. Battery cable ladder bracket

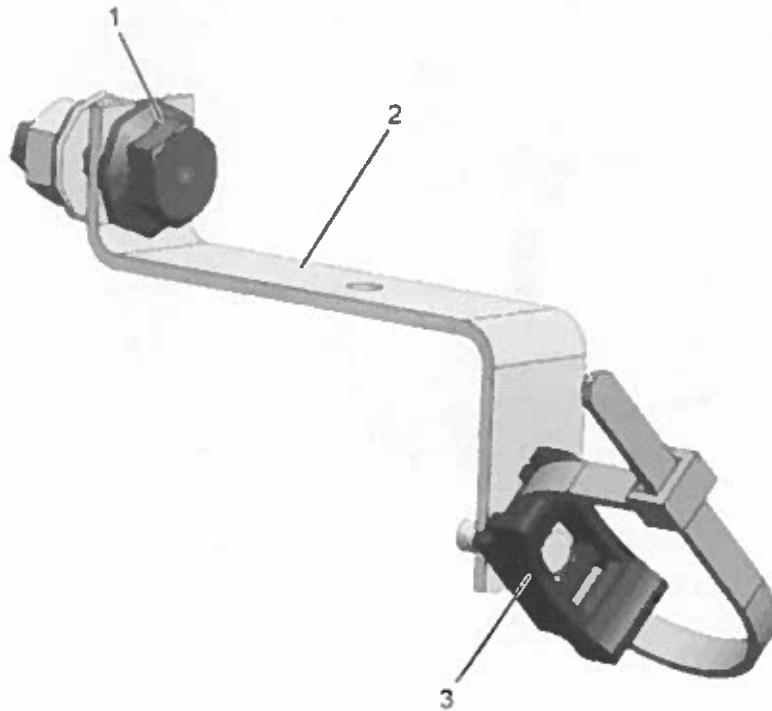
4. Locate and visually inspect Synflex tube. The tube is on the frame rail, near the driver seat area.
 - a. If Synflex tube is routed as shown in Figure 2, proceed to Step 27.
 - b. If Synflex tube is routed as shown in Figure 1, but is free of kinks or damage, proceed to Step 5.
 - c. If Synflex tube is routed as shown in Figure 1 and tube is kinked or damaged, proceed to Step 11.



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Figure 3. Existing Bracket

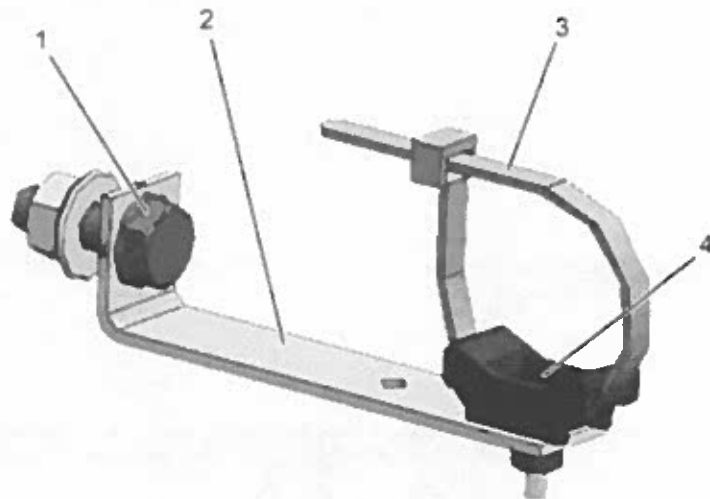
1. Bolt, washer, and nut
 2. L bracket
 3. Tie strap
 4. Saddle
5. Cut tie strap (Item 3) securing Synflex tube to saddle.
6. Remove bolt (Item 1) securing L bracket (Item 2) to frame. Retain bolt, washer, nut, and saddle portion of bracket (Item 4).



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Figure 4. New Bracket

1. Bolt, washer, and nut (reuse)
 2. Extension clip; Z style (475411C1)
 3. Saddle and mounting hardware (reuse)
7. Transfer saddle (Item 3) to Z style extension clip (Item 2) and install at 45-degree angle. Reuse hardware nut and washer from original bracket. Tighten bolt to finger tight.
8. Using bolt washer and nut (Item 1) removed in Step 6, install new bracket at frame rail hole used by old bracket. Torque bolt to 80 - 100 lb-ft (108 - 135 N•m).
9. Remove lower end of Synflex tube from the ATR-6 relay valve port and cut tie straps securing Synflex tube to other air lines.
10. Proceed to Step 20.



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Figure 5. Existing Bracket

1. Bolt, washer, and nut
2. L bracket
3. Tie strap
4. Saddle

11. Cut tie strap (Item 3) securing Synflex tube to saddle.

12. Remove bolt (Item 1) securing L bracket (Item 2) to frame. Retain bolt, washer, nut, and saddle portion of bracket (Item 4).

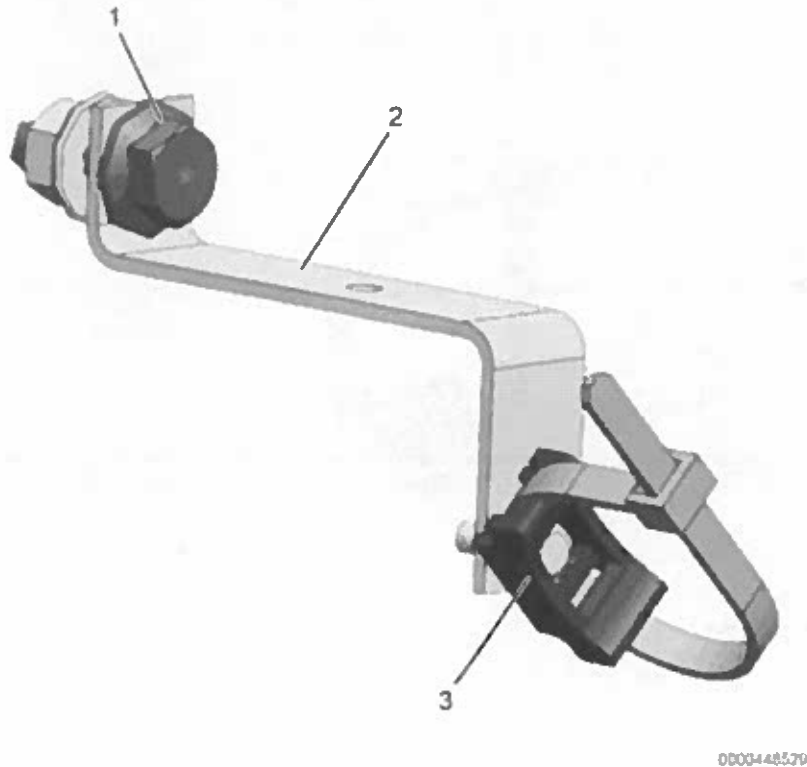


Figure 6. New Bracket

1. Bolt, washer, and nut (reuse)
2. Extension clip; Z style (475411C1)
3. Saddle and mounting hardware (reuse)

13. Transfer saddle (Item 3) to Z style extension clip (Item 2) and install at 45-degree angle. Reuse hardware nut and washer from original bracket. Tighten bolt to finger tight.

14. Using bolt washer and nut (Item 1) removed in Step 11, install new bracket at frame rail hole used by old bracket. Torque bolt to 80 - 100 lb-ft (108 - 135 N•m).

15. Disconnect end of Synflex tube from left front brake modulator.

16. Disconnect other end of Synflex tube from ATR-6 valve.

17. Cut any remaining tie straps securing Synflex tube to vehicle and remove Synflex tube.

18. Cut a 9-ft (2.7 m) length of nylon tubing.

19. Connect one end of tubing to left front brake modulation valve.

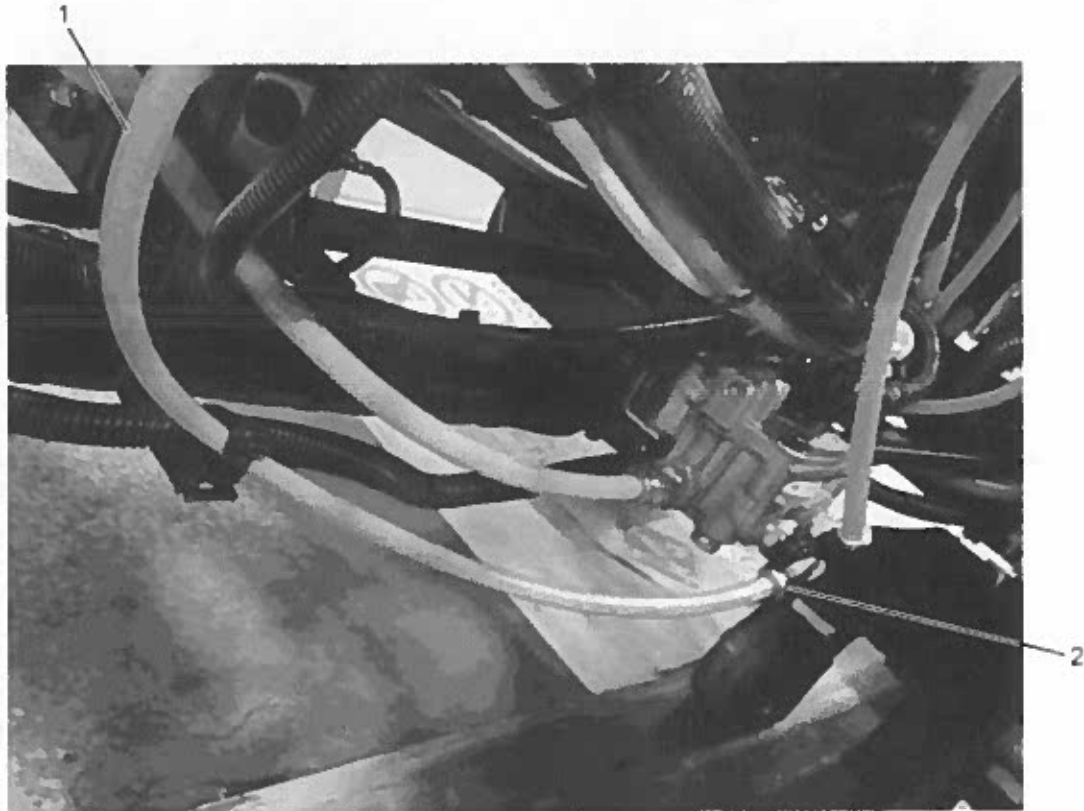


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Figure 7. New Tube Routing

1. Z style extension clip
2. Battery cable ladder bracket

20. Route Synflex tube to Z style extension clip (Item 1) and secure with tie strap.
21. Install new saddle clamp on battery cable ladder bracket (Item 2).
22. Route Synflex tube to battery cable ladder bracket and secure with tie strap.
23. Torque saddle bolt to 90 - 110 lb-in (10 - 12 N•m).



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Figure 8. ATR-6 Traction Relay Valve Port

1. Synflex tube
2. Valve port

NOTE: It is important to route the airline as shown in Figure 7 and Figure 8. Do not reroute the airline to reduce its length. Shortening the airline will cause the vehicle to pull in one direction when the breaks are applied.

24. Route Synflex tube (Item 1) to ATR-6 traction relay valve port (Item 2). Trim excess hose. Install onto push to connect fitting.
25. Replace any tie straps removed in Step 9 or Step 17.
26. Start engine.
27. Make sure there is at least 90 psi of air in the system, apply the air brakes, and check for leaks.
28. Remove wheel chocks.

END OF SERVICE PROCEDURE


LABOR INFORMATION

Operation Number	Description	Time
A40-18517-1	Inspect Only, No Repairs Necessary	0.3 hrs
A40-18517-2	Inspect and Reroute Brake Air Line Only	0.5 hrs
A40-18517-3	Inspect, Replace, and Reroute Air Line	0.7 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

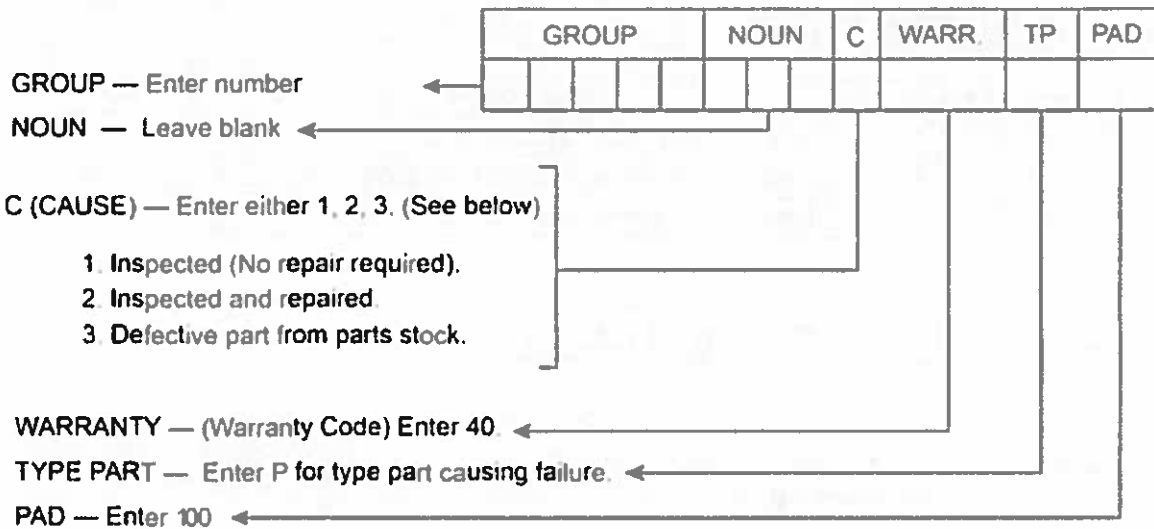
ADMINISTRATIVE / DEALER RESPONSIBILITIES

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 18517.

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.

VEHICLE RECALL 18517

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.