

SERVICE PROCEDURE

22514
SEPTEMBER, 2022

SUBJECT: SAFETY RECALL
Steering Gear on certain 2022 and 2023 IC Bus® CE school bus models built 06/01/2021 through 06/07/2022 with R. H. Sheppard HD94E, M100P, M110P, HD94P, XD120P, MD83P, SD110P, M83P, M90P, or M80P model steering gears.

DEFECT DESCRIPTION

The steering gears may have been assembled with less than the required input shaft ball bearings and can result in a fracture of the input shaft and loss of steering. A loss of steering increases the risk of a vehicle crash.

MODELS INVOLVED

This safety recall involves certain 2022 and 2023 IC Bus® CE Series school bus models built 06/01/2021 thru 06/07/2022 with R. H. Sheppard HD94E, M100P, M110P, HD94P, XD120P, MD83P, SD110P, M83P, M90P, or M80P model steering gears.

ELIGIBILITY

NOTE: There are specific filing instructions for the Warranty Administrator in the Administrative section that must be followed.

This procedure applies ONLY to vehicles marked in the International® Service PortalSM with Safety Recall 22514.

PARTS INFORMATION

NOTE: Refer to the RH Sheppard website link later in this procedure to determine if the steering gear on the vehicle you are working on is “GOOD” or “SUSPECT.”

NOTE: If your location has any steering gears in inventory, please refer to the RH Sheppard link later in this procedure to determine inventory steering gear status.

NOTE: Do not pre-order steering gears for inventory. There are currently none available. Expected release of the final remedy, with parts available, is late-October.

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, 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.
5. Unlatch and open hood to access steering gear.

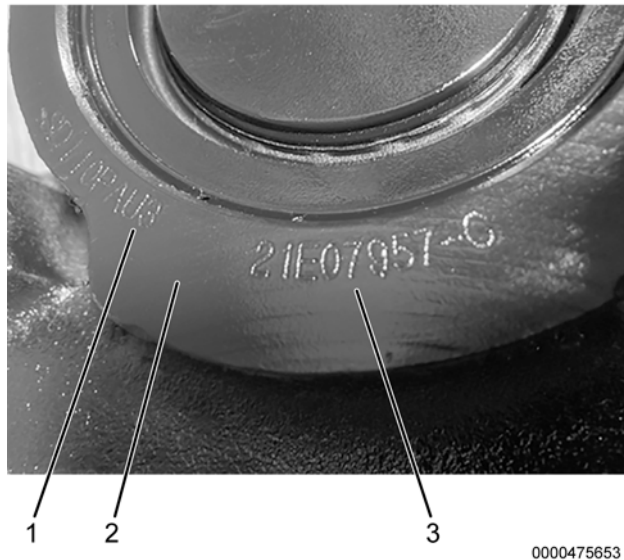


Figure 1. Gear Housing Sector Shaft Output

1. Part number
2. Gear housing sector shaft outlet
3. Serial number

NOTE: The steering gear serial number is located on the steering gear housing at the bottom of the sector shaft outlet. The wheels may need to be turned for proper viewing. Additionally, a small portion of gears may have the serial number at the top of the sector shaft outlet.

NOTE: The steering gear serial number is a 2-digit year followed by an alpha numeric month – Example: 21E (2021 May).

NOTE: If the serial number and / or part number are illegible due to paint, gently scrape the numbers with a flat head screwdriver, wire brush, or emery cloth to lightly remove paint where the numbers are located.

6. Record the entire steering gear serial number (Figure 1, Item 3). Use the RH Sheppard link below to determine if the gear needs to be replaced.

[Sheppard Steering Gear Classification Tool \(rhsheppard.com\)](https://rhsheppard.com)



Sheppard Steering Gear Classification Tool

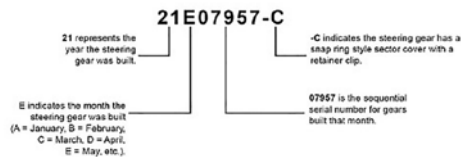
STOP !! - READ THIS BEFORE BEGINNING.

Sheppard remanufactured steering gears, slave gears ARE NOT affected by this recall.

Refer to the Identification Guideline for identification of affected steering gears as well as interpretation of the serial and part number.

Please select your vehicle make and enter the full 8-character serial number before the dash (-) as shown below without any spaces or the "-C" at the end.

SERIAL NUMBER EXAMPLE:



NAVISTAR, INTERNATIONAL

21F12257

Search

Reset

USER IS SOLELY RESPONSIBLE FOR THE INPUT OF ACCURATE DATA AND ASSUMES ALL RISKS ASSOCIATED WITH FAILURE TO DO SO.

Result

Steering Gear serial number : Good

Vehicle can be returned to service with no further remedy action

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Figure 2. Sheppard Steering Gear Classification Tool (Steps 6a, 6b, and 6c)

1. Select vehicle
2. Enter serial number
3. Click search
4. Result (Good)
 - a. Select **NAVISTAR INTERNATIONAL** from the drop-down list (Figure 2, Item 1).
 - b. Enter the serial number (Figure 2, Item 4) and click **Search** (Figure 2, Item 3).
 - c. If the result is **Good** (Figure 2, Item 2), replacement is NOT required. Proceed to Step 7.



Sheppard Steering Gear Classification Tool

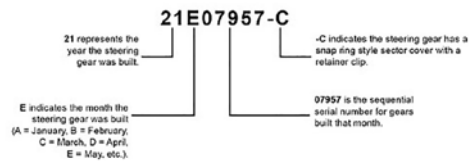
STOP !! - READ THIS BEFORE BEGINNING.

Sheppard remanufactured steering gears, slave gears ARE NOT affected by this recall.

Refer to the [Identification Guideline](#) for identification of affected steering gears as well as interpretation of the serial and part number.

Please select your vehicle make and enter the full 8-character serial number before the dash (-) as shown below without any spaces or the "-C" at the end.

SERIAL NUMBER EXAMPLE:



NAVISTAR, INTERNATIONAL

21E02374

Search

Reset

USER IS SOLELY RESPONSIBLE FOR THE INPUT OF ACCURATE DATA AND ASSUMES ALL RISKS ASSOCIATED WITH FAILURE TO DO SO.

Result

Steering Gear serial number : Suspect

Remove and replace gear per the vehicle manufacturer's instructions

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Figure 3. Sheppard Steering Gear Classification Tool (Step 6d)

1. Result (Suspect)

- d. If the result is **Suspect** (Figure 3, Item 1), advise customer that steering gear requires replacement. Parts become available in late October. Proceed to Step 7.



Sheppard Steering Gear Classification Tool

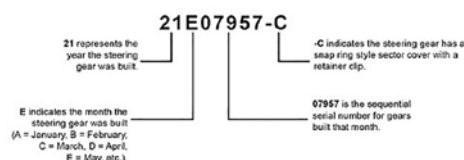
STOP !! - READ THIS BEFORE BEGINNING.

Sheppard remanufactured steering gears, slave gears ARE NOT affected by this recall.

Refer to the Identification Guideline for identification of affected steering gears as well as interpretation of the serial and part number.

Please select your vehicle make and enter the full 8-character serial number before the dash (-) as shown below without any spaces or the "-C" at the end.

SERIAL NUMBER EXAMPLE:



NAVISTAR, INTERNATIONAL

21E79057

Search

Reset

USER IS SOLELY RESPONSIBLE FOR THE INPUT OF ACCURATE DATA AND ASSUMES ALL RISKS ASSOCIATED WITH FAILURE TO DO SO.

Result

Steering Gear serial number : Not Found

Check serial carefully and re-enter the serial number. If still not found, please contact Sheppard at steering22@rh-sheppard.com

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Figure 4. Sheppard Steering Gear Classification Tool (Step 6e)

1. Result (Not Found)

NOTE: Suspect serial numbers will have year/month range of 21C025XX through 22B041XX. If the serial number on the vehicle you are working on has year/month codes outside of this range and you repeatedly receive a “Not Found” result, this steering gear should be considered “good”.

- e. If the result is **Not Found** (Figure 4, Item 1), recheck serial number and re-enter information

7. Close and latch hood.

8. Remove wheel chocks

END OF SERVICE PROCEDURE

LABOR INFORMATION

Operation Number	Description	Time
A40-22514-1	Inspection Only; Gear is Good	0.3 hrs.
A40-22514-2	Inspect Gear; Gear is Suspect	0.3 hrs.

CAMPAIGN IDENTIFICATION LABEL

NOTE: Only install the Campaign Identification Label onto vehicles where the steering gear on the truck you are working on has been verified to be “GOOD” on using the RH Sheppard web tool.

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.

A black and white image of a campaign identification label. The label is rectangular with a white background and a black border. At the top, it says "DO NOT REMOVE" in bold. Below that, it says "INTERNATIONAL" in bold. The label contains several fields for information: "Campaign No.", "VIN", "Eng.#", "COMPLETED", and "Service Location Code #". At the bottom, it says "DO NOT REMOVE" in bold.

ADMINISTRATIVE / DEALER RESPONSIBILITIES

WARRANTY CLAIMS

NOTE: Causal code must be 1 – Inspection Only.

SRT -1 or -2 must be used AND claim comments MUST state either of the following: Serial number good; replacement not required or Serial number suspect; will require replacement.

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Safety Recall 22514.

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.

VEHICLE RECALL 22514

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

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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.

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.