### The information contained in this report was submitted pursuant to 49 CFR §573

## Part 573 Safety Recall Report

NHTSA Recall No.: 24V-164 Manufacturer Recall No.: 24505

### Manufacturer Information :

Manufacturer Name : Navistar, Inc. Address : 2701 Navistar Drive Lisle IL 60532 Company phone : 331-332-1590

Manufacturer Name : Navistar, Inc.

Submission Date : FEB 29, 2024

### Vehicle Information :

| Vehicle 1:                | 2025-2025 Inte   | rnational HV   |   |  |   |
|---------------------------|--|--|---|--|---|
| Vehicle Type :            | BUSES, MEDIUM  | A & HEAVY VEH  | IICLES  |  |   |
| Body Style :              | OTHER  |  |   |  |   |
| Power Train :             | DIESEL   |  |   |  |   |
| Descriptive Information : | HD94P, HD94S,<br>• The incl<br>serial numbers<br>manufacturing<br>• The veh<br>gears with susp | and M100P ste<br>usive dates of n<br>provided by RH<br>plants.<br>icles in the susp<br>ect serial numb | ering ge<br>nanufac<br>I Sheppa<br>Dect pop<br>Jers and | ears.<br>ture were determine<br>ard and production o | ipped with R. H. Sheppard<br>ed by suspect steering gear<br>lata at Navistar's vehicle<br>een built with steering<br>nicles were not. |
| Production Dates :        | JAN 03. 2024 - J   | AN 15, 2024  |   |  |   |
| VIN Range 1:              |  | NR   | End :   | NR   | Not sequential  |
|                           |  |  |   |  | I   |
| Vehicle 2:                | 2025-2025 Inte   | rnational HX   |   |  |   |
| Vehicle Type :            | BUSES, MEDIUN  | A & HEAVY VER  | IICLES  |  |   |
| Body Style :              | OTHER  |  |   |  |   |
| Power Train :             | DIESEL   |  |   |  |   |
| Descriptive Information : | HD94P, HD94S,<br>• The incl<br>serial numbers<br>manufacturing<br>• The veh<br>gears with susp | and M100P ste<br>usive dates of n<br>provided by RH<br>plants.<br>icles in the susp<br>ect serial numb | ering ge<br>nanufac<br>[Sheppa<br>Dect pop<br>Jers and  | ears.<br>ture were determine<br>ard and production o | ipped with R. H. Sheppard<br>ed by suspect steering gear<br>lata at Navistar's vehicle<br>een built with steering<br>hicles were not. |
| Production Dates :        | JAN 03, 2024 - J   | AN 11, 2024  |   |  |   |
| VIN Range 1:              | Begin :  | NR   | End :   | NR   | □ Not sequential  |
| VIN Range 1:              | There are 9 HX<br>JAN 03, 2024 - J<br>Begin :  | series trucks in<br>AN 11, 2024<br>NR  | the sus<br>End :  | pect population.                                     | Not sequentia   |



Number of potentially involved : 272 Estimated percentage with defect : 5 %

**Population :** 

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| Vehicle 3: 2   | 025-2025 Int  | ternational L  | Т   |   |  |  |               |             |   |                               |
|--|---|--|---|---|--|--|---------------|-------------|---|-------------------------------|
| Vehicle Type : B   |   |  |   |   |  |  |               |             |   |                               |
| Body Style : C   |   |  |   |   |  |  |               |             |   |                               |
| Power Train : D  |   |  |   |   |  |  |               |             |   |                               |
| Descriptive Information : •  | The su  | spect nopul:   | ation is identified by model  | s equipped with R. H. Sheppard  |  |  |               |             |   |                               |
|  | (D94P, HD94)  | S, and M100  | P steering gears.   |   |  |  |               |             |   |                               |
|  | <ul> <li>The inclusive dates of manufacture were determined by suspect steering gear serial numbers provided by RH Sheppard and production data at Navistar's vehicle nanufacturing plants.</li> <li>The vehicles in the suspect population may have been built with steering gears with suspect serial numbers and all other similar vehicles were not.</li> </ul> |  |   |   |  |  |               |             |   |                               |
|  |   |  |   |   |  |  | g             |             |   |                               |
|  |   |  |   |   |  |  | 0             |             | - | cks in the suspect population |
| Production Dates : J   |   |  |   |   |  |  | AN 04, 2024 - | JAN 18, 202 | 4 |                               |
| VIN Range 1: Be  | gin :   | NR   | End: NR   | 🗌 Not sequential  |  |  |               |             |   |                               |
|  |   |  |   |   |  |  |               |             |   |                               |
| Vehicle 4 : 2  | 025-2025 Int  | ternational M  | ΛV  |   |  |  |               |             |   |                               |
| Vehicle Type : B   | USES, MEDIU   | JM & HEAVY   | VEHICLES  |   |  |  |               |             |   |                               |
| Body Style : C   | THER  |  |   |   |  |  |               |             |   |                               |
| Power Train : N  | IR  |  |   |   |  |  |               |             |   |                               |
| Descriptive Information : •  | The su  | spect popula   | ation is identified by model  | s equipped with R. H. Sheppard  |  |  |               |             |   |                               |
| - H  | (D94P, HD94)  | S, and M100  | P steering gears.   |   |  |  |               |             |   |                               |
| •  | The in  | clusive dates  | s of manufacture were dete  | rmined by suspect steering gea  |  |  |               |             |   |                               |
| S  | erial number:   | s provided b   | y RH Sheppard and produc  | tion data at Navistar's vehicle   |  |  |               |             |   |                               |
| n  | nanufacturing   |  |   |   |  |  |               |             |   |                               |
| •  | The ve  | hicles in the  | suspect population may ha   | we been built with steering   |  |  |               |             |   |                               |
|  |   |  | umbers and all other simila   |   |  |  |               |             |   |                               |
|  |   |  | rucks in the suspect popula   | uon.  |  |  |               |             |   |                               |
| Production Dates : J   |   |  |   |   |  |  |               |             |   |                               |
|  | oin ·   | NR   | End: NR   | 🗌 Not sequential  |  |  |               |             |   |                               |
| VIN Range 1 : Be   | giii.   |  |   |   |  |  |               |             |   |                               |
| VIN Range 1 : Be   | .gm.  |  |   |   |  |  |               |             |   |                               |
| escription of Defect :   |   |  |   |   |  |  |               |             |   |                               |
| escription of Defect :   | : As reporte  |  | eppard in recall 24E-010, "   | the steering gear sector shaft<br>r teeth."   |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect  | : As reporte<br>does not m  |  |   |   |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1   | : As reporte<br>does not m<br>: NR  |  | eppard in recall 24E-010, "   |   |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1<br>FMVSS 2                                  | : As reporte<br>does not m<br>: NR<br>: NR  | eet hardnes  | eppard in recall 24E-010, "<br>s requirements for the gear  | r teeth."   |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1<br>FMVSS 2                                  | : As reporte<br>does not m<br>: NR<br>: NR<br>: As reporte  | leet hardnes<br>d by R. H. Sh  | eppard in recall 24E-010, "<br>s requirements for the gear<br>eppard in recall 24E-010, "   | r teeth."<br>sector shaft gear teeth with   |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1   | : As reporte<br>does not m<br>: NR<br>: NR<br>: As reporte<br>lower than  | eet hardnes<br>d by R. H. Sh<br>expected ha                                  | eppard in recall 24E-010, "<br>s requirements for the gear<br>eppard in recall 24E-010, "<br>urdness may prematurely w  | r teeth."<br>sector shaft gear teeth with<br>year, crack, or fracture. A                              |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1<br>FMVSS 2                                  | <ul> <li>As reporte<br/>does not m</li> <li>NR</li> <li>NR</li> <li>As reporte<br/>lower than<br/>fractured g</li> </ul>  | eet hardnes<br>d by R. H. Sh<br>expected ha<br>gear tooth m                  | eppard in recall 24E-010, "<br>s requirements for the gear<br>eppard in recall 24E-010, "<br>urdness may prematurely w<br>ay interfere with the gear n                                | r teeth."<br>sector shaft gear teeth with<br>vear, crack, or fracture. A<br>nechanism leading to non- |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1<br>FMVSS 2                                  | <ul> <li>As reporte<br/>does not m</li> <li>NR</li> <li>NR</li> <li>As reporte<br/>lower than<br/>fractured g</li> </ul>  | d by R. H. Sh<br>expected ha<br>gear tooth m<br>ering effort                 | eppard in recall 24E-010, "<br>s requirements for the gear<br>eppard in recall 24E-010, "<br>urdness may prematurely w  | r teeth."<br>sector shaft gear teeth with<br>vear, crack, or fracture. A<br>nechanism leading to non- |  |  |               |             |   |                               |
| escription of Defect :<br>Description of the Defect<br>FMVSS 1<br>FMVSS 2<br>escription of the Safety Risk | <ul> <li>As reporte<br/>does not m</li> <li>NR</li> <li>NR</li> <li>As reporte<br/>lower than<br/>fractured g<br/>smooth ste<br/>likelihood</li> </ul>  | d by R. H. Sh<br>expected ha<br>ear tooth m<br>eering effort<br>of a crash." | eppard in recall 24E-010, "<br>s requirements for the gear<br>eppard in recall 24E-010, "<br>ardness may prematurely w<br>ay interfere with the gear n<br>or binding. A steering gear | r teeth."<br>sector shaft gear teeth with<br>vear, crack, or fracture. A<br>nechanism leading to non- |  |  |               |             |   |                               |

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|---|---|
|   | expected hardness for the gear teeth. Sector shaft gear teeth with lower than required hardness are not as durable as properly hardened sector shaft gear teeth."   |
|   | As reported by R. H. Sheppard in recall 24E-010, "the driver may hear a popping sound when a tooth fractures. The driver may notice lumpy or non-smooth steering effort when the gear moves through the cracked or fractured location." |
|   |   |

### **Involved Components :**

| Component Name 1:              | Steering gear |
|--------------------------------|---------------|
| Component Description :        | Steering gear |
| <b>Component Part Number :</b> | Various       |

### **Supplier Identification :**

### **Component Manufacturer**

Name :R. H. SheppardAddress :101 Philadelpha St.<br/>P. O. Box 877 Hanover Pennsylvania 17331Country :United States

### **Chronology**:

• 01/18/2024 - R. H. Sheppard communicates to Navistar of finding a steering gear sector shaft with less than the required hardness during shot peen operation.

• 01/18/2024 – Navistar initiates ship hold of all loose steering gears and vehicles at the assembly plants, finding 785 suspect gears out of 1,037 suspect gears, and established clean point at the Escobedo and San Antonio assembly plants.

• 01/18/2024 through 02/20/2024 – Navistar conducts a search of manufacturing records to identify vehicles built with a suspect steering gear serial number.

• 02/07/2024 – Navistar Product Safety, Engineering, and supplier quality meet with R. H. Sheppard to review and discuss the failure mode, root cause, lot code and steering gear serial number data collected by R. H. Sheppard.

• 02/09/2024 – Navistar receives R.H. Sheppard's 573 defect report for 24E-010.

• 02/21/2024 – Navistar completes its review of manufacturing records and finalizes the Suspect Population

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| Description of Remedy :   |  |
|---|--|
| Description of Remedy Program :                                     | <ul> <li>The remedy will involve replacing any steering gear found with a suspect serial number.</li> <li>Navistar's plan for reimbursement of pre-notification remedies, on file with NHTSA and dated 05/06/2022, applies and reimbursement instructions will be included in the customer notification.</li> </ul>  |
|   | As reported by R. H. Sheppard in recall 24E-010, "the replacement parts<br>have steering gear sector shafts that have the heat treatment properly<br>performed and the required hardness has been demonstrated."   |
| Identify How/When Recall Condition<br>was Corrected in Production : | As reported by R. H. Sheppard in recall 24E-010, "the heat treating furnace<br>that produced the suspect steering gear sector shafts was taken off-line.<br>Components that were processed through the problematic furnace were<br>identified and contained. Fully assembled gears that were built with the<br>suspect steering gear sector shafts were identified and contained.<br>Shipments to vehicle manufacturers were called back. Other similar<br>furnaces in use at Sheppard for sector shafts were inspected. Surface<br>hardness was measured and demonstrated to be as expected from the<br>non-problematic furnaces. The problematic furnace was repaired and will<br>be re-commissioned once the heat treating process is demonstrated to be<br>effective." |

\* NR - Not Reported

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