

# Part 573 Safety Recall Report

## 22E-047

**Manufacturer Name :** R.H. Sheppard Co., Inc.

**Submission Date :** MAY 01, 2023

**NHTSA Recall No. :** 22E-047

**Manufacturer Recall No. :** NR



### Manufacturer Information :

### Population :

**Manufacturer Name :** R.H. Sheppard Co., Inc.

**Number of potentially involved :** 105,271

**Address :** 101 Philadelphia Street

**Estimated percentage with defect :** 1 %

P.O. Box 877 Hanover PA 17331-0877

**Company phone :** 717-637-3751

### Equipment Information :

**Brand / Trade 1 :** Sheppard

**Model :** M90P

**Part No. :** various

**Size :** NR

**Function :** Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 01, 2022

**Brand / Trade 2 :** Sheppard

**Model :** MD83P

**Part No. :** various

**Size :** NR

**Function :** Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 10, 2022

Brand / Trade 3 : Sheppard

Model : SD110P

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 10, 2022

Brand / Trade 4 : Sheppard

Model : HD94P

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 10, 2022

Brand / Trade 5 : Sheppard

Model : XD120P

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 10, 2022

Brand / Trade 6 : Sheppard

Model : HD94E

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 01, 2022

Brand / Trade 7 : Sheppard

Model : M100P

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 01, 2022

Brand / Trade 8 : Sheppard

Model : M110P

Part No. : various

Size : NR

Function : Steering

**Descriptive Information :** A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

**Production Dates :** JUN 01, 2021 - FEB 10, 2022

Brand / Trade 9 : Sheppard

Model : M80P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

Brand / Trade 10 : Sheppard

Model : M83P

Part No. : various

Size : NR

Function : Steering

Descriptive Information : A small number of steering gears were assembled without the required number of recirculating balls. The recall population was determined by identifying the oldest production lot associated with a gear failure, and including all production from that lot to the date in February 2022 when the improvements in the assembly process were instituted.

Production Dates : JUN 01, 2021 - FEB 10, 2022

## Description of Defect :

Description of the Defect : Steering gear was assembled with fewer than the required number of recirculating balls which can lead to a fracture in the steering gear worm-shaft and loss of vehicle steering.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : A steering gear with fewer than the required number of recirculating balls may bind when loads are applied. In some cases the balls may align on the same side of the gear's worm-shaft and concentrated loads may cause the gear's internal parts to fracture resulting in loss of vehicle steering. Loss of steering increases the likelihood of a crash.

Description of the Cause : An anomaly in the steering gear recirculating ball insertion operation occurred during assembly. Subsequent rework processes and inspections did not detect the missing recirculating balls.

Identification of Any Warning : Preceding the internal fracture, the steering may be perceived as strained by that can Occur : the driver. No audible or visual warning is available.

## Involved Components :

Component Name : Recirculating Ball

Component Description : Ball bearing used in recirculating ball steer gears.

Component Part Number : N/A

## Supplier Identification :

### Component Manufacturer

Name : NR

Address : NR

NR

Country : NR

## Chronology :

2/8/22-Sheppard warranty lab receives a gear built 8/20/2021 with failed worm-shaft. 2/9/22 - warranty lab inspection/disassembly indicates fracture of the worm-shaft and less than the required number of recirculating balls 2/10/22-plant stops production. Additional inspections and process verifications put in place. Clean point is established. Material on hand is inspected and confirmed defect free. Production resumes. (2/10/22 - 5/13/22): review of all warranty from 2015-present indicated no similar failure ever received. engineering tests are performed to understand and to reproduce failure mode. 3/10/2022 - Sheppard contacted vehicle driver for description of event and confirmed no accident or injury, low speed and while backing up. 4/12/22 - Sheppard receives a second gear at incoming shipping facility 5/5/22- Sheppard warranty lab receives/inspects/disassembles the second gear built on 6/26/21 with failed worm-shaft and less than the required number of recirculating balls 5/6/22- The Product Integrity Committee meets for update on the product investigation. 5/13/22 - The Product Integrity Committee meets and recommends submission of a defect report 573

## Description of Remedy :

Description of Remedy Program : Purchasers will identify the unique serial number imprinted on the recalled equipment. A web-based tool is available after August 1, 2022 to vehicle manufactures and their service networks to classify the serial number. Serial numbers will be classified as either suspect and must be replaced or as not-suspect and may remain in service. Vehicle Manufactures will be handling completion reporting.

How Remedy Component Differs from Recalled Component : The remedy component was assembled after the recall condition was corrected in production when additional controls were put in place. The remedy component has been verified to have the correct number of recirculating balls. Each remedy component is identifiable by an imprinted unique serial number.

Identify How/When Recall Condition was Corrected in Production : On Feb 10, 2022 the recirculating ball insertion process control was enhanced. Additional process controls and inspectors were added to the process to verify that the correct number of recirculating balls in each steering gear.

## Recall Schedule :

Description of Recall Schedule : RH Sheppard only notifies vehicle manufacturers not end users. No defective equipment was supplied to end users from RH Sheppard.

Planned Dealer Notification Date : JUL 15, 2022 - JUL 15, 2022

Planned Owner Notification Date : JUL 15, 2022 - JUL 15, 2022

## Purchaser Information :

The following manufacturers purchased this defective/noncompliant equipment for possible use or installation in new motor vehicles or new items of motor vehicle equipment:

Name : SUPACAT LTD.

Address : THE AIRFIELD DUNKESWELL  
England Devon 00

Country : GB

Company Phone : 1404 892082

Name : Kenworth Truck Co.

Address : 10630 NE 38th Place  
Kirkland WA

Country : US

Company Phone : 425-828-5201

Name : Crane Carrier Co  
Address : 1951 Reiser Avenue S.E.  
New Philadelphia OH 44663  
Country : US  
Company Phone : NR

Name : TICO Mfg/Terminal Services  
Address : PO Box 1434  
Savannah GA 31402  
Country : US  
Company Phone : 843-536-8139

Name : Oshkosh Truck Corp.  
Address : 2307 Oregon St.  
Oshkosh WI 54903  
Country : US  
Company Phone : NR

Name : Orange EV LLC  
Address : 500 NW Business Park Lane  
Riverside MO 64150  
Country : US  
Company Phone : NR

Name : New Flyer of America  
Address : 711 Kernaghan Ave  
Winnipeg Manitoba 00 R2C 2T4  
Country : CA  
Company Phone : NR

Name : Link-Belt Construction Equip.  
Address : 2651 Palumbo Dr  
Lexington KY 40509  
Country : US  
Company Phone : (859) 264-6439

Name : Kovatch Mobile Equipment  
Address : One Industrial Complex  
Nesquehoning PA 18240  
Country : US  
Company Phone : (570) 669-5581

Name : Kodiak America  
Address : PO Box 370  
Paul ID 43347  
Country : US  
Company Phone : NR

Name : Kalmar Solutions  
Address : 415 E. Dundee  
Ottawa KS 66067  
Country : US  
Company Phone : (785) 248-0776

Name : JCB Manufacturing Inc.  
Address : 2000 Bamford Blvd.  
Pooler GA 31322  
Country : US  
Company Phone : (912) 447-2094

Name : Peterbilt Motors Inc  
Address : 3200 Airport Road  
Denton TX 31322  
Country : US  
Company Phone : 940-220-2760

Name : AM General LLC  
Address : 105 N. Niles Avenue  
South Bend IN 46617  
Country : US  
Company Phone : NR

Name : Global Environmental Products  
Address : 5405 Industrial Parkway  
San Bernardino CA 92407  
Country : US  
Company Phone : NR

Name : Emergency One, Inc  
Address : 1601 SW 37th Ave  
Ocala FL 34474  
Country : US  
Company Phone : NR



Name : Ferrara Fire Apparatus, Inc.  
Address : 27855 James Chapel Road North  
Holden LA 70744  
Country : US  
Company Phone : 800-443-9006

Name : Eldorado National Inc  
Address : 9670 Galena St.  
Riverside CA  
Country : US  
Company Phone : 951.727.9339

Name : Capacity of Texas  
Address : 401 Capacity Drive  
Longview TX 75604  
Country : US  
Company Phone : NR

Name : Autocar LLC  
Address : 551 South Washington St.  
Hagerstown IN 47346  
Country : US  
Company Phone : NR

Name : Navistar Inc  
Address : 2701 Navistar Dr  
Lisle IL 60532  
Country : US  
Company Phone : 331-332-1590

Name : Mil-Stak, Inc.  
Address : 2201 Hwy. 30 w  
Fruitland ID 83619  
Country : US  
Company Phone : 208-452-6045

Name : Meritor, Inc  
Address : 2135 West Maple Rd  
Troy MI 48084  
Country : US  
Company Phone : 920-424-5307

Name : Grove (Manitowoc) Worldwide  
Address : Box 21  
Shady Grove PA 17256-0021  
Country : US  
Company Phone : 717-593-5116

Name : Volvo Trucks North America, Inc  
Address : 7900 National Service Road  
Greensboro NC 27409-9416  
Country : US  
Company Phone : 301-573-5972

Name : B&J Tech  
Address : 45 Hwy 23  
Suwanee GA 30024  
Country : US  
Company Phone : 770-904-0013

Name : Daimler Trucks North America  
Address : 4555 N. Channel Ave.  
Portland OR 97217  
Country : US  
Company Phone : 503-745-5508

Name : SUPACAT LTD.  
Address : THE AIRFIELD DUNKESWELL  
England O0  
Country : GB  
Company Phone : 1404 892082

\* NR - Not Reported