

# Part 573 Safety Recall Report

## 22E-073

**Manufacturer Name :** Oshkosh Corporation

**Submission Date :** SEP 19, 2022

**NHTSA Recall No. :** 22E-073

**Manufacturer Recall No. :** NR



### Manufacturer Information :

### Population :

**Manufacturer Name :** Oshkosh Corporation

**Number of potentially involved :** 143

**Address :** 2307 Oregon Street

**Estimated percentage with defect :** 1 %

PO Box 2566 Oshkosh WI 54903-2566

**Company phone :** 920-235-9151

### Equipment Information :

**Brand / Trade 1 :** Sheppard Gear

**Model :** XD120P

**Part No. :** 3875726

**Size :** NR

**Function :** NR

**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 :** MAY 03, 2021 - AUG 01, 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 that can Occur :** Preceding the internal fracture, the steering may be perceived as strained by the driver. No audible or visual warning is available.

### Involved Components :

**Component Name :** Steering Gear

**Component Description :** Steering Gear assembly

**Component Part Number :** 3875726

### Supplier Identification :

#### Component Manufacturer

**Name :** RH Sheppard Co., Inc

**Address :** 101 Philadelphia Street

P.O. Box 877 Hanover Pennsylvania 17331

**Country :** United States

### 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 : RH Sheppard will provide remedy instructions for (1) Identifying the serial number on the steering gear (2) Inspecting the serial number in order to classify it as "good", "suspect", or "not found" and (removing and replacing the suspect gear. RH Shepard will cover the labor cost involved in the inspection of gears which classify as "good". RH Shepard will cover labor cost involved for serial number inspection, gear removal, and replacement for gears which classify as "suspect". If a gear is classified as "not found" then RH Shepard will require the individual conducting the inspection to contact the Sheppard Steering Gear Recall Product Action Center.

How Remedy Component Differs from Recalled Component : The remedied component will have the correct number of recirculating balls.

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 : Notifications to customers will be made via a customer letter. The 577 customer letter will be mailed pending NHTSA approval. Oshkosh S-Series does not have dealers for its products so no Dealer notification is necessary.

Planned Dealer Notification Date : NR - NR

Planned Owner Notification Date : OCT 28, 2022 - OCT 28, 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 : NR

Address : NR

NR

Country : NR

Company Phone : NR

\* NR - Not Reported