

Part 573 Safety Recall Report

24V-182

Manufacturer Name : Kalmar Solutions, LLC**Submission Date :** MAR 07, 2024**NHTSA Recall No. :** 24V-182**Manufacturer Recall No. :** NR**Manufacturer Information :****Population :****Manufacturer Name :** Kalmar Solutions, LLC**Number of potentially involved :** 2**Address :** 415 E. Dundee Street**Estimated percentage with defect :** 100 %**Ottawa KS 66067****Company phone :** 785-229-6341**Vehicle Information :****Vehicle 1 :** 2023-2023 Kalmar Ottawa T2 Ottawa T2**Vehicle Type :** BUSES, MEDIUM & HEAVY VEHICLES**Body Style :****Power Train :** NR

Descriptive Information : Kalmar's supplier, R.H. Sheppard Co., Inc. has filed a NHTSA safety recall, 23E-094, indicating that: "A small number of steering gears may have been assembled without the required number of recirculating balls. The recall population was determined by evaluating the manufacturing data generated on the assembly line for indications of a gap in the process control steps." Kalmar has received a list of 2 suspect units from Sheppard used in production. These were included in 2 shipments totalling a lot size of 345 units. This recall, while related to Sheppard's recall 23E-094, is specific to the units that Kalmar has purchased from Sheppard and relates to Kalmar's responsibility to inform our end customers. This recall affects model year 2023 Kalmar Ottawa T2 terminal tractors.

Kalmar is determining production dates of the 2 lots totalling 345 units to issue up to 345 customer notification letters wherein the 2 suspect units would have been installed on a vehicle.

Kalmar manufacturers on and off road terminal tractors. The steering gear is used on both types. Off road terminal tractors do not have a VIN. Only on road terminal tractors are issued VINs.

Production Dates : JUN 28, 2023 - DEC 31, 2023**VIN Range 1 : Begin :**

NR

End : NR☐ Not sequential

Description of Defect :

Description of the Defect :	As noted in Sheppard recall 23E-094, 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 :	As noted in Sheppard recall 23E-094, 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 :	As noted in Sheppard recall 23E-094, 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 :	As noted in Sheppard recall 23E-094, 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 1 :	Steering Gear - In production
Component Description :	Steering gearbox
Component Part Number :	In production: Kalmar p/n 53573752; Sheppard Model or p/n M100PQS31

Supplier Identification :

Component Manufacturer

Name :	R.H. Sheppard Co., Inc.
Address :	101 Philadelphia Street P.O. Box 877 Hanover Pennsylvania 17331-0877
Country :	United States

Chronology :

The primary chronology of events comes from the Sheppard recall 23E-094. Kalmar was then informed from Sheppard and from NHTSA several days following the second Sheppard filing on Feb 20, 2024. Kalmar received

on March 4, 2024 the applicable list of suspect serial numbers applicable to Kalmar models and purchases.

Description of Remedy :

Description of Remedy Program :	Kalmar will inform and support customers with Sheppard's remedy from Sheppard recall 23E-094: The specific gears with identified serial numbers will be recalled and replaced with remedy gears. Sheppard will work with the vehicle manufactures to provide gears at no cost the the OEM. The vehicle OEMs are handling all of the completion reporting.
How Remedy Component Differs from Recalled Component :	As communicated in the Sheppard recall 23E-094, The remedy gears are assembled after the additional steps were added to confirm that any rework certainly contains the corrected number of recirculating ball gears.
Identify How/When Recall Condition was Corrected in Production :	As communicated in the Sheppard recall 23E-094, The gap in the manufacturing control logic was corrected for the reworked gears. Additional inspection steps are added to confirm that any rework certainly contained the corrected number of recirculating balls.

Recall Schedule :

Description of Recall Schedule :	Dealer letters are expected to be issued Mar 21, 2024 and they will support notification of end customers. Owner notification letters are expected to begin being issued Mar 21, 2024 with an expected completion by May 10, 2024.
Planned Dealer Notification Date :	MAR 21, 2024 - APR 04, 2024
Planned Owner Notification Date :	MAR 21, 2024 - MAY 10, 2024

* NR - Not Reported