OMB Control No.: 2127-0004

Part 573 Safety Recall Report

Manufacturer Name : Kalmar Solutions, LLC Submission Date : AUG 03, 2022 NHTSA Recall No.: 22V-566 Manufacturer Recall No.: NR

Manufacturer Information :

Manufacturer Name : Kalmar Solutions, LLC

Ottawa KS 66067 Company phone: 785-229-6341

Vehicle Information :

	2021-2022 Kalı			
• •	BUSES, MEDIUN	M & HEAV	Y VEHICLES	
Body Style :	ND			
Power Train :				
Descriptive information .	indicating that: required numb- identifying the production from assembly proce Kalmar has rece 24 suspect unit This recall, whi Kalmar has pur our end custom	"A small n er of recirc oldest pro- m that lot t ess were in eived a list s used for le related t rchased fro ners.	umber of steering gears wer culating balls. The recall pop duction lot associated with a o the date in February 2022 stituted." of 86 suspect units from She aftermarket parts support. to Sheppard's recall 22E-047	ulation was determined by gear failure, and including all when the improvements in the eppard used in production and <i>Y</i> , is specific to the units that calmar's responsibility to inform
Production Dates :	JUN 14, 2021 - J	IUL 20, 202	22	
VIN Range 1:	Begin :	NR	End: NR	□ Not sequential
Description of Defect : Description of the Defect : As noted in Sheppard recall 22E-047, 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				
The in	nformation contain	ed in this re	port was submitted pursuant to 4	49 CFR §573



22V-566

Address: 415 E. Dundee Street

Population :

Number of potentially involved : 110 Estimated percentage with defect : 100 %

Part 573 Safety Recall Report

Page 2

Description of the Safety Risk :	As noted in Sheppard recall 22E-047, 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 22E-047, 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.
	As noted in Sheppard recall 22E-047, 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

Component Name 2 :	Steering Gear - In aftermarket sales
Component Description :	Steering gearbox
Component Part Number :	In aftermarket sales: Kalmar p/n 90030934; Sheppard Model or p/n M100PQS3 $$

Supplier Identification :

Component Manufacturer

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

Chronology :

The information contained in this report was submitted pursuant to 49 CFR \$573

Part 573 Safety Recall Report

The primary chronology of events comes from the Sheppard recall 22E-047. Kalmar was then informed from Sheppard and from NHTSA several days following the initial Sheppard filing on May 28, 2022. Kalmar received on July 20, 2022 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 22E-047: 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 classified as "suspect" must be replaced and serial numbers classified as "not-suspect" may remain in service. Kalmar will inform and support customers based on the list of serialized suspect steering gears that Kalmar has received from Sheppard.
	As communicated in the Sheppard recall 22E-047, 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.
	As communicated in the Sheppard recall 22E-047, 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 : NR Planned Dealer Notification Date : AUG 17, 2022 - AUG 17, 2022 Planned Owner Notification Date : AUG 17, 2022 - AUG 17, 2022

* NR - Not Reported

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