

Part 573 Safety Recall Report

23V-057

Manufacturer Name : Maintainer Corporation of Iowa, Inc.

Submission Date : FEB 10, 2023

NHTSA Recall No. : 23V-057

Manufacturer Recall No. : NR



Manufacturer Information :

Manufacturer Name : Maintainer Corporation of Iowa, Inc.

Address : 1701 2nd Ave.
Sheldon IA 51201

Company phone : 712-324-8125

Population :

Number of potentially involved : 1,120

Estimated percentage with defect : 100 %

Vehicle Alterer Information :

Vehicle 1 : 2019-2023 Maintainer Service Trucks with hydraulic telescopic crane

Descriptive Information : The population was determined by testing software revision levels on trucks back to the beginning of product release in 2019 on Maintainer manufactured trucks with an Eaton wireless remote controlled telescopic crane and CAN system on the service body. Total number of products included in this recall is 1,120.

Production Dates : MAR 28, 2019 - FEB 06, 2023

Description of Defect :

Description of the Defect : The service bodies with telescopic crane involved in this recall are equipped with a CAN system with Eaton components that are installed by Maintainer. Maintainer owns the custom written software that is coded and supplied by Power Systems Inc. When a crane function is being commanded by the Eaton wireless transmitter, if power gets disconnected to the receiver on the Maintainer crane, crane operation may continue without wireless remote function being commanded by the user.

FMVSS 1 : NR

FMVSS 2 : NR

Description of the Safety Risk : If signal is lost and crane movement occurs when not commanded by the user presents a safety risk and could potentially cause bodily injury or death and a potential to property damage. This would occur if the operator or other persons are in the swing radius of the crane. This situation can only exist when the hydraulic power supply (PTO powered by the chassis or auxiliary power unit is operated), and not while the service body is traveling down the road.

Description of the Cause : The program/code was written in a manner that allows the function to continue until it sees the next change of state signal. If the signal is completely cut off, the function is latched on instead of off.

Identification of Any Warning There could potentially be no warning if the wiring harness to the crane that can Occur : receiver becoming damaged or disconnected while operating the crane.

Involved Components :

Component Name : Eaton HFX20m

Component Description : Programmable Controller

Component Part Number : 102EC21400A

Supplier Identification :

Component Manufacturer

Name : Power Systems (an Applied Fluid Power co

Address : 8325 Commerce Drive
Chanhassen Minnesota 55317

Country : United States

Chronology :

Maintainer was notified by a customer on 02/02/23 that he was rotating his crane from the wireless crane remote. The remote lost link, he released the rotate function button, but the crane continued to rotate. The customer found the receiver on the crane to have no power. Maintainer was able to duplicate on a test bench that if the function is active on the transmitter when power is removed to the receiver, crane function can continue, because it is supplied power from the list HFX20m programmable controller. Power Systems tested back to version 2.06 when the product was released and was able to duplicate the failure mode. An else statement in the function block of the code was missing, preventing the stop of function output. Maintainer decided to file a recall on 02/03/23 after in house testing was completed. No property damage or bodily injury has been reported and no warranty claims have been submitted.

Description of Remedy :

Description of Remedy Program : Maintainer has received revised programming code from Power Systems on PS-00501-ECR-01P V3.11.00- that eliminates the possibility of the defect. Any unit produced with a compartment display in the service truck can be updated with the new software on a USB drive. Maintainer will send a USB drive with the correct software, as well as instruction for how to apply the update. Any unit produced without a compartment display in the service truck will need to have the HFX20 module returned to Maintainer to have the software updated.

This update will be free of charge to Customers. The customer will be eligible for reimbursement of costs to apply the software update or sending the programmable controller back for update. Reimbursement information document will be included in Dealer and customer letters.

How Remedy Component Differs from Recalled Component : Units with the software remedy applied will have software PS-00501-ECR-01P V3.11.00. Returned HFX20m programmable controller will be physically marked with a tag labeled "v3.11"

Identify How/When Recall Condition was Corrected in Production : All affected Maintainer service trucks with hydraulic telescopic crane in production will have the software remedy applied to the controller prior to final shipment. All completed service trucks on the Maintainer premises will be updated prior to shipping.

Recall Schedule :

Description of Recall Schedule : The notification letters will be mailed according to our specified dealer and owner begin and end dates.

Planned Dealer Notification Date : FEB 07, 2023 - APR 07, 2023

Planned Owner Notification Date : FEB 07, 2023 - APR 07, 2023

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 :

Address :

Country :

Company Phone :

* NR - Not Reported