

Date of Submission: 6/23/2023

FSA 23S32 – Certain 2023 model year Lincoln Nautilus vehicles – Defective rear Continuous Controlled Damping (CCD) shock crimp

Chronology

On March 7, 2023, the Ford Oakville Assembly Complex (OAC) Tire & Wheel install area identified an over-extended condition on rear Continuous Controlled Damping (CCD) shock absorbers. Visual checks confirmed that the rear shocks were over-extending up to 27 mm.

OAC identified a similar condition on the front shocks on March 8, 2023. All front CCD shocks go through a Spring Module sub-assembly where a load of approximately 3KN in the process will reveal the overextended condition, which is detectable by the operator, preventing the shocks from being installed into a vehicle. Rear CCD shocks do not go through this process.

On March 9, 2023, Ford's Critical Concern Review Group (CCRG) approved a stop ship for Nautilus vehicles equipped with CCD shocks. Vehicles at the plant were inspected for this condition and repaired accordingly. Of the 90 vehicles inspected, 72 right rear shocks and 21 left rear shocks were identified with this concern. Based upon this data, it was determined that rear shocks with this condition could be assembled into a vehicle without detection by the operator. All inventory of the suspect shocks were quarantined.

On March 14, 2023, the issue was reviewed by Ford's CCRG. The CCRG investigation identified an insufficient crimping operation in the shock assembly at the supplier facility. Supplier production data review by the CCRG revealed that the issue may have existed and gone undetected from February 14, 2023 through Mar 10, 2023 when additional load capability verification was established. Tooling replacement & 100% detection was restored for parts produced on Mar 11, 2023.

From April through May 2023, the Underbody Systems engineering team evaluated the effect on vehicle components if an over extended rear shock condition is present. The analysis included review of Design Failure Mode Effects Analysis (DFMEA) control documents along with analysis of technical drawings. The CCRG determined that an over extension of the rear shock during assembly into vehicle or during certain vehicle driving conditions may damage the brake hose along with other suspension components.

Ford is not aware of any warranty, field reports, or customer complaints related to this condition

Ford is not aware of any accidents or injury related to this condition.

On **June 16, 2023**, Ford's Field Review Committee reviewed the concern and approved a field action.