



24C04 – CERTAIN HIGH SERIES HEADLAMPS SOLD AS SERVICE PARTS FOR 2017-2019MY FORD SUPER DUTY

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.

March – June 2023

On March 15, 2023, Transport Canada (TC) performed photometric testing on a 2017 model year Super Duty left-hand high series headlamp purchased from a Ford service depot to verify compliance with CMVSS No. 108. The tested headlamp showed an apparent noncompliance to CMVSS 108 for the lower beam at a single test point. On May 10, 2023, TC notified Ford of this apparent noncompliance and Ford's Critical Concern Review Group (CCRG) opened an investigation into this issue. On June 21, 2023, Ford responded to TC requesting to re-test the same component with the Ford Super Duty headlamp test fixture.

July – November 2023

Ford obtained seventeen (17) service headlamps from service depots throughout North America for photometric testing at the Tier-1 supplier; all of these headlamps met the CMVSS 108 photometric requirements. On November 08, 2023, the retest of the same TC headlamp using the Super Duty headlamp test fixture exhibited the same apparent noncompliance. TC also conducted two tests on two different service headlamps, both of which passed.

December 2023 – January 2024

The tear down analysis of TC headlamp identified that molding of the low beam module lens within the headlamp deviated from a nominal surface design. This could cause the photometric intensity to exceed the maximum requirement at a single test point. After investigation into the molding process at the Tier-3 supplier, the team theorized that the malfunction of valve gates controlling the fill of plastic into the lens's injection mold or variation in the cooling of the injection mold may have created the dimensional inaccuracy that could form an incorrect beam pattern.

February 2024

Ford CCRG performed a statistical analysis of the Tier-1 supplier's quality control process data for production and service parts. This analysis confirmed that production parts supplied by the Tier-1 supplier from July 2016 through November 2019 met Ford's statistical confidence and reliability criteria typically used to assess compliance. Additionally, the data demonstrated that the service parts built in a suspect time window between May 05, 2021, to December 30, 2021, were built out-of-process, due to a supplier quality concern during this time-period. The headlamp that TC tested with the apparent noncompliance was manufactured in September 2021 and falls within the suspect time window described above. Reviewing the warranty data, the CCRG determined that 82 vehicles in US and Canada repaired between May 2021 and March 2023 may have received service headlamps built within the suspect time window.

March 08, 2024

As of February 28, 2024, Ford is not aware of any accidents or injuries pertaining to this issue.

On March 01, 2024, Ford's Field Review Committee reviewed the concern and approved a field action.

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March 08, 2024