



U.S. Department of Transportation
National Highway Traffic Safety Administration

ODI RESUME

Investigation: PE23020
Prompted By: VOQ and EWR Field Report Review
Date Opened: 11/15/2023 **Date:** 06/27/2025
Closed:
Investigator: Robert Caple **Reviewer:** Bruce York
Approver: Tanya Topka
Subject: Loss of motive power due to broken crankshaft with no ability to restart.

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Nissan North America, Inc.
Products: 2016 - 2019 MY Titan Equipped with 5.0L V8 diesel engine
Population: 38,763
Problem Description: Crankshaft failure leading to loss of motive power.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	147	488	0	0	550*	CONF
Crashes/Fires:	1	0	0	0	1	0
Injury Incidents:	0	0	0	0	0	0
Number of Injuries:	0	0	0	0	0	0
Fatality Incidents:	0	0	0	0	0	0
Number of Fatalities:	0	0	0	0	0	0

*Total eliminates duplicates received by the manufacturer

ACTION/SUMMARY INFORMATION

Action: This Preliminary Evaluation (PE) is closed without a manufacturer action.

Summary:
 On November 15, 2023, the Office of Defects Investigation (ODI) opened Preliminary Evaluation PE23020 to investigate allegations of loss of motive power in model year (MY) 2016 through 2019

Nissan Titan XD trucks equipped with 5.0L Cummins diesel engines. The complaints allege the condition was due to a failure of the engine crankshaft. The purpose of the investigation was to understand the scope, frequency, and safety related consequence of the alleged defect.

During the investigation, it was found that the subject vehicles can experience a loss of motive power due to a failure of the crankshaft main bearings which can lead to a fractured crankshaft. This resulted in a loss of motive power and an inability to restart. An analysis of all complaint sources shows many vehicles exhibit knocking, vibration, malfunction indicator lamp (MIL) warnings, and/or poor engine performance prior to a total failure. Some consumers report driving their truck in for repairs only to be diagnosed with a failed crankshaft. ODI has not identified any injuries or fires attributable to this failure. ODI is aware of one complaint alleging a non-injury crash involving a curb strike. ODI is also aware of complaints of overheating starter motors and melted starter motor wiring occurring after prolonged attempts to start engines that have suffered a broken crankshaft.

In its response to ODI's January 26, 2024 information request letter, Nissan provided information detailing several material and process changes involved in the production of the subject vehicle's engine. These changes appear to coincide with incremental improvements in failure rates but there is no indication that a single factor was the primary cause of the failures.

Analysis of ODI consumer complaints and manufacturer provided data found that failure rates decreased progressively for each model year. Review of failure mileage found that 50% of the failures occurred by 60,000 miles with a significant decrease in failures after 80,000 miles. Assuming average yearly mileage driven, the newest model year trucks (2019) would be near or past peak failure mileage.

Given the low failure rate, the observable warnings available to the driver, and much of the fleet being past peak failure mileage, ODI is closing this Preliminary Evaluation with no further action. The closing of the investigation does not constitute a finding by NHTSA that a defect does not exist, and NHTSA will take further action if warranted by future circumstances. To review the ODI reports cited in the Closing Resume ODI Report Identification Number document, go to [NHTSA.gov](https://www.nhtsa.gov).