U.S. Department of Transportation

National Highway Traffic Safety Administration

OFFICE OF DEFECTS INVESTIGATION

ODI RESUME

Investigation:	DP26002		
Prompted By:	Defect Petition		
Date Opened:	03/04/2026	**Date Closed:**	08/13/2026
Investigator:	Andrew Brady	**Reviewer:**	Joshua Neff
Approver:	Tanya Topka		
Subject:	Redundant wheel fastener locking mechanism		

MANUFACTURER & PRODUCT INFORMATION

Manufacturer:	Generic Manufacturer
Products:	Heavy-Vehicle 10 Hole 22.5" Hub Pilot Wheels
Population:	130,948,489 (Estimated)
Problem Description:	Heavy truck/trailer/bus wheel assemblies lack a redundant mechanical wheel-fastener locking mechanism, which the petitioner alleges causes subsequent wheel-separation incidents.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	EWR D&I	Other	Total	EWR Field Reports
All Incidents:	3	0	0	0	3	CONF
Crashes/Fires:	0	0	0	0	0	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

ACTION/SUMMARY INFORMATION

Action: Petition is denied; close this Defect Petition.

Summary:

The Office of Defects Investigation (ODI) received a petition on November 21, 2025, requesting a defect investigation to “determine whether the absence of a redundant mechanical wheel-fastener locking mechanism constitutes a safety-related defect in motor vehicles and motor-vehicle equipment” in the heavy-vehicle sector. On March 4, 2026, NHTSA opened Defect Petition DP26002 to evaluate the petitioner's request. The petition itself can be reviewed at NHTSA.gov under ODI number 11703245.

The petitioner focused on all vehicles utilizing the 10-285.75 mm bolt wheels, also known as 10 Hole 22.5" Hub Pilot Wheels, as the subject of the petition. ODI conducted a comprehensive search of Vehicle Owner Questionnaire's (VOQ) and Early Warning Reporting (EWR) data for vehicles equipped with the subject wheels. Furthermore, ODI reviewed six months of the Federal Motor Carrier Safety Administration's Motor Carrier Management Information System violation data for commercial vehicles cited for loose/missing wheel fasteners. After a review of this data, ODI has found insufficient evidence to support the petitioner's claim that a safety-related defect exists. The data indicates that instances of loose or missing fasteners typically occur at higher mileages following fleet maintenance activities, rather than as a result of an inherent vehicle manufacturing or design defect. Furthermore, commercial motor vehicle operators are required to conduct daily pre-trip inspections to detect and mitigate loose fasteners before operation. In the absence of a Federal Motor Vehicle Safety Standard requiring wheels to have a redundant locking system and given the lack of evidence establishing a systemic safety defect, ODI is denying this Defect Petition. The denial of this petition does not foreclose the agency from taking further action if warranted or making a future finding that a safety-related defect exists based upon additional information the agency may receive. To review the reports cited in the Closing Resume ODI Report Identification Number document, go to NHTSA.gov.