



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

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION



Investigation: PE19012
Prompted By: DP18-004
Date Opened: 09/16/2019 **Date Closed:** 10/29/2023
Investigator: Daniel Pinero **Reviewer:** Bruce York-b
Approver: Tanya Topka
Subject: Frame weld deficiencies

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Chrysler (FCA US, LLC)
Products: 2018-2019 JEEP WRANGLER
Population: 355,088

Problem Description: Various frame weld quality concerns, such as excessive slag, lack of and/or over penetration, overweld or weld drip, weld splash, porous welds, and steering related issues that may be a result of the aforementioned weld quality concerns.

FAILURE REPORT SUMMARY

| | ODI | Manufacturer | EWR D&I | Other | Total | EWR Field Reports |
|------------------------------|-----|--------------|---------|-------|-------|-------------------|
| All Incidents: | 72 | 369 | 0 | 0 | 305* | 0 |
| 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 |

Description of Other:

*Total eliminates duplicates received by the manufacturer

ACTION/SUMMARY INFORMATION

Action: Close this investigation.

Summary:

On September 16, 2019, the Office of Defects Investigation (ODI) granted Defect Petition DP18-004 and opened Preliminary Evaluation PE19-012 to investigate allegations of deficient frame welds and their potential safety related effects on 2018-2019 Jeep Wranglers. Due to a previous steering related recall that was caused by a misaligned weld on the front track bar (NHTSA Recall No. 18V-675), ODI decided to include reports of steering shimmy or wobble, loose steering, and steering stiction (loss of power

steering) as part of this investigation and parent petition (DP18-004).

ODI received information from the vehicle manufacturer Fiat Chrysler Automobiles (FCA) via information request letters dated March 8, 2019, and February 6, 2020. Supplemental requests for information occurred between July 2020 and July 2023. A review of the responsive manufacturer information showed that vehicles presenting an unexpected reduction in steering ability due to a welding tool misalignment were correctly addressed via recall 18V-675. General complaints concerning the weld appearance were not associated with a realized risk to motor vehicle safety. ODI identified a limited number of reports involving weld separation on vehicles that were out of scope of recall 18V-675. FCA identified various causes of weld quality issues in early production (build dates prior to March 2018) including improper welding techniques on galvanized frames and component part variation leading to off-seam welds. These issues were addressed in production for subject vehicles built after July 2018 and preceded a drop in weld failure reports. ODI reviewed manufacturer and agency reports of weld failures out of scope of recall 18V-675 and did not find any that resulted in a loss of vehicle control. There are no known crashes, injuries, or fatalities as a result of weld failures on vehicles not included in recall 18V-675.

Due to the steering related consequence associated with Recall 18V-675, ODI opted to include a request for information regarding various steering issues experienced by vehicles included in this investigation. ODI reviewed manufacturer as well as agency data and determined these various steering issues were not related to any weld defect. Since the opening of this investigation, FCA has addressed the following steering concerns;

- a. Steering looseness due to material choice in the steering box internal components. FCA released an updated part with an internal component material less sensitive to temperature variances (TSB 08-003-21 REV. A). NHTSA will take further investigative action if justified.
- b. Steering wobble or shimmy due to a manufacturing and design deficiency in the steering damper. FCA released a part via Customer Satisfaction Notification (CSN) V41 in June 2019 which implemented supplier quality control improvements and design changes due to the presence of air in the base valve which degraded damping performance. NHTSA will take further investigative action if justified.
- c. Steering stiction, or loss of power steering, due to an underpowered steering pump calibration that occurred at highway speeds during cold weather. In December 2021, FCA released CSN Y95 which corrected this issue via software update. Due to the decreased number of consumer complaints, the service campaign appears to have addressed the issue related to an underpowered steering pump. NHTSA will take further investigative action if justified.

The closing of this investigation does not constitute a finding by NHTSA that a safety-related defect does not exist. The Agency reserves the right to take additional 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).