FCA US LLC Chronology
Left-Side Halfshafts
Submitted on May 10, 2016

- September 27, 2015 through October 2, 2015, the supplier for Jeep Cherokee ("KL") halfshafts used an incorrect part program transition location, slower part program scan speed and restricted quench flow which lead to high heat exposure and an insufficient quench. During this period the supplier produced KL left-side halfshafts with low surface hardness and high core hardness on this single machine.
- October 2, 2015, the supplier notified FCA US LLC ("FCA US") of this issue.
- October 2, 2015, the supplier corrected the scan speed and transition locations in the part program and cleaned the quench tank for the left-side parts.
- October 3, 2015, a yard hold was created for the left-side halfshafts; 868 vehicles were held and all suspect halfshafts were replaced; 82 were outside of Toledo North Assembly Plant ("TNAP") control before the yard hold was put in place.
- October 3, 2015, the supplier updated the material lab test specification to take sections from every induction heat treated section of the halfshaft axle bar.
- In October, 2015, fatigue testing was performed on parts within specification and parts with low surface and high core hardness. Results showed improperly heat treated parts failed at less than 15,000 cycles vs. parts within specification which lasted more than 20,000 cycles; the requirement for testing is 15,000 cycles.
- In October 2015, endurance testing was performed on parts within specification and parts with low surface and high core hardness. Results showed improperly heat treated parts failed at 72% of test requirements, this equates to approximately 108,000 customer miles while the test target is 150,000 miles.
- November 3, 2015, the supplier created a quench tank critical preventive maintenance schedule to clean tanks every two months.
- On November 9, 2015, the FCA US Vehicle Safety and Regulatory Compliance ("VSRC") organization opened an investigation as a result of the yard hold not capturing all affected vehicles.
- On November 10, 2015, it was recommended to test the core and surface hardness of halfshafts from various build dates to verify the affected population was contained in the suspect scope.
- Between November 10, 2015, and February 22, 2016, weekly meetings were held to discuss the potential suspect population. The supplier verified 211 parts produced between February 2015 and October 2015, which included 58 parts within the suspect scope.
- Between March 17, 2016, and April 28, 2016, the FCA US VSRC held regular meetings with FCA US Supplier Quality and FCA US Powertrain Engineering to facilitate analysis and summarization of data in preparation for management review.
- As of April 29, 2016, FCA US is not aware of any halfshaft failures due to this issue.
- As of April 29, 2016, FCA US identified zero CAIRs, VOQs or field reports related to this issue.
- As of April 29, 2016, FCA US is unaware of any accidents or injuries potentially related to this issue.
- On May 3, 2016, FCA US determined, through the Vehicle Regulations Committee, to conduct a voluntary safety recall of the affected vehicles.