## FCA US LLC Chronology Halfshaft Case Depth Thickness Submitted on May 10, 2016

- On February 18, 2016, a loose power-on relay in the control panel of a heat treat machine at the halfshaft supplier was discovered.
- On February 18, 2016, energy monitor limits were bypassed at the supplier to allow the machine to run during maintenance intervention. The bypass of energy monitor limits may have resulted in low case depth halfshafts. Units produced during maintenance intervention were not contained.
- On February 20, 2016, the supplier notified FCA US LLC ("FCA US") Supplier Quality Engineering of this issue. Testing revealed that the case depth was 2 mm instead of the required 6 mm to 7.3 mm.
- On February 20, 2016, PRI # 16-082-01 was opened to investigate this issue at Warren Truck Assembly Plant ("WTAP"). The PRI initiated a yard hold at WTAP. Saltillio Truck Assembly Plant did not receive any suspect shipments.
- On February 20, 2016, the supplier reseated and secured the relay.
- On February 20, 2016, the supplier limited access to open, set up and change energy monitoring limits.
- On February 20, 2016, the supplier revised the scrap reconciliation procedure.
- On February 21, 2016, WTAP began installing halfshafts produced after the corrective actions were put in place on February 20, 2016.
- On March 1, 2015, WTAP installed a halfshaft from the suspect population. Breaking the clean point of February 21, 2016.
- On March 15, 2016, the FCA US Vehicle Safety and Regulatory Compliance ("VSRC") organization opened an investigation as a result of the units not contained by the PRI.
- On April 18, 2016, a trip was taken to the supplier manufacturing facility with FCA VSO, FCA US Supplier Quality, and FCA US Powertrain Engineering to gather information about the events that occurred and review the current state of their manufacturing process.
- Between March 15, 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.