



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 15-007
Prompted by: Consumer complaints, PE15-025
Date Opened: 12/04/2015 **Date Closed:** 07/06/2016
Investigator: Peter Ong **Reviewer:** Scott Yon
Approver: Stephen Ridella
Subject: Air Bag Clockspring Wiring Failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Chrysler (FCA US LLC)
Products: 2007-2012 Jeep Wrangler
Population: 638,479

Problem Description: Air bag light illumination potentially indicating a faulty clockspring assembly in the driver side air bag electrical circuit. An open clockspring circuit would prevent deployment of the driver air bag.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	416	1,526	1,942
Crashes/Fires:	0	0	0
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0
Other*:	23	170	193

***Description of Other:** 23 ODI and 170 Mfr. complaints with no injuries or crashes on 244,221 remaining non-recalled MY 2011-2012 Wrangler vehicles.

ACTION / SUMMARY INFORMATION

Action: Closed this Engineering Analysis. See NHTSA recalls 16V290 and 16V288

Summary:

On May 10, 2016, Fiat Chrysler America (FCA) submitted a Part 573 Defect Information Report announcing NHTSA recall 16V290 involving 394,258 model year (MY) 2007-2010 Jeep Wrangler vehicles. Under the recall FCA will replace the clockspring and install a steering wheel back cover and steering wheel column shroud. This recall also includes approx. 4,524 MY2007-2010 right hand drive (RHD) Jeep Wrangler vehicles commonly used for rural postal delivery services. In addition 7,180 MY 2011-2016 right hand drive Jeep Wrangler vehicles were also recalled under 16V288, the same remedy repair will be used.

Upon review of the 1,942 MY 2007-2010 Jeep Wrangler consumer complaints, 17,195 warranty reports and field returned parts assessment, FCA concluded that a defect exists in the driver side clockspring assembly, a device that both connects (electrically) the driver air bag to the control module and allows rotational movement between the steering wheel and fixed steering column. Clockspring failure may compromise the air bag circuit causing illumination of the air bag warning lamp, and may result in non-deployment of the driver air bag in a frontal crash. FCA identified a contributing factor in that the recalled vehicles may be subjected to off-road dusty environments and/or usage with the vehicle roof top/doors removed thus allowing dust and moisture to enter the clockspring assembly. FCA advised that the MY 2011 and later Wrangler vehicles had an improved steering column cover/shroud that may reduce the amount of dirt/moisture that can enter the clockspring assembly.

During the investigation FCA and the Office of Defects Investigation (ODI) also reviewed 193 MY 2011-2012 Jeep Wrangler consumer complaints, 3,918 warranty reports and field returned parts along with reports from other FCA vehicles that use the same clockspring assembly. Based on this review, the rate of repair and the failure mode does

not indicate a defect trend at this time in the later MY Wrangler or other FCA vehicles. During the field return parts review, FCA found a significant number of MY 2011-2012 Wrangler returned parts that operated normally, the so called "no trouble found" or NTF parts where no fault could be identified through bench testing.

On June 10, 2016, FCA informed ODI of its intention to conduct a 15-yr, 150k mile extended warranty program due to the NTF issue and the MY 2011 and later vehicles having a somewhat elevated level of warranty replacement. Consumers will be notified of the program in writing. FCA will collect clocksprings replaced under the warranty extension program to further examine and study the root cause failure. ODI will monitor FCA's analysis to determine if any further field action is warranted.

Based on the actions taken by FCA to recall the MY 2007-2010 Jeep Wrangler vehicles and the MY 2008-2016 right hand drive Wrangler vehicles, this investigation is closed. FCA has also agreed to conduct a warranty extension and further evaluation of the MY 2011-2016 Wrangler.

At the time of FCA's field data submission in PE 15-025 (September 2015), ODI was aware of a total of 416 MY 2007-2010 and 23 MY 2011-2012 VOQs relevant to this issue. In addition, there have been an additional 90 and 16 VOQs (respectively) received since the recall announcement (i.e., thru May 2016).

The reports noted above can be viewed at SaferCar.gov under the reference (ODI) numbers cited on the attached listing.