



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: PE 15-030
Date Opened: 08/20/2015
Investigator: Stephen Mchenry
Approver: Otto Matheke
Subject: Powered vehicle rollaway
Date Closed: 02/05/2016
Reviewer: Jeff Quandt

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Chrysler (FCA US LLC)
Products: MY 2014 & 2015 Jeep Grand Cherokee
Population: 535,681
Problem Description: Complainants allege incidents of rollaway after the vehicle has been shifted to Park.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	61	267	306**
Crashes/Fires:	35	95	117**
Injury Incidents:	13	22	26**
Number of Injuries:	13	22	26**
Fatality Incidents:	0	0	0
Other*:	0	325	325

*Description of Other: Complaints reporting difficulty shifting to Park.

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: This Preliminary Evaluation has been upgraded to an Engineering Analysis (EA16-002).

Summary:

The Office of Defects Investigation (ODI) opened Preliminary Evaluation PE15-030 on August 20, 2015, to investigate 14 complaints alleging incidents of rollaway after intended shifts to Park in Model Year (MY) 2014 and 2015 Jeep Grand Cherokees vehicles. The MY 2014-2015 Grand Cherokee vehicles are equipped with Monostable electronic ("E-shift") gearshift assemblies supplied by ZF Group (ZF). The E-shift system operates electronically and the gear requested by the driver is transmitted from the shifter via the CAN Bus to the Transmission Control Module which makes the requested shift. The Monostable gearshift does not move into a detent but springs back to a centered/neutral position after the driver selects a gear and releases the shifter. A button on the shift knob must be depressed to shift out of Park, shift out of Neutral, and to shift from Drive to Reverse or Park.

The gear selected is shown on a display in the dash and illuminated letters on the shifter. If the driver's door is opened when the gearshift is not in Park, a chime sounds and a message is displayed on the instrument panel to warn the driver. In addition, the engine Start/Stop push-button control logic does not permit normal engine shut-off when the transmission is not in Park. This logic may provide feedback to drivers who attempt to turn the engine off when the transmission is not in Park. However, this function does not protect drivers who intentionally leave the engine running or drivers who do not recognize that the engine is still running. NHTSA testing during PE15-030 indicates that operation of the Monostable shifter is not intuitive and provides poor tactile and visual feedback to the driver, increasing the potential for unintended gear selection.

ODI's analysis of the PE15-030 complaint and field report data identified 306 incidents of vehicle rollaway following intended shifts to Park in the 2014-2015 Grand Cherokee. These resulted in 117 alleged crashes. Twenty-eight of the

crashes reportedly caused injuries, including 3 with a fractured pelvis and 4 others requiring some degree of hospitalization (a ruptured bladder, fractured kneecap, broken ribs, damaged to right leg). Other injuries include reports of a broken nose, facial lacerations requiring stitches, sprained knees, severe bruising, and trauma to legs.

An Engineering Analysis (EA16-002) has been opened to assess the scope, frequency, and safety-related consequences of the alleged defect. The Vehicle Owner Questionnaires (VOQs) associated with the closing of this Preliminary Evaluation are:

10823099, 10822939, 10822442, 10820488, 10817252, 10810551, 10810051, 10809691,
10809024, 10807839, 10807416, 10794318, 10787947, 10787576, 10785790, 10783597, 10778854, 10775391,
10767488, 10766494, 10763333, 10763284, 10763082, 10762457, 10761498, 10760980, 10760729, 10760702,
10760081, 10759979, 10759669, 10759622, 10759568, 10759548, 10759533, 10759287, 10759278, 10759198,
10759186, 10759157, 10759131, 10759102, 10759082, 10759066, 10759047, 10759046, 10733158, 10730952,
10716526, 10711893, 10683556, 10679497, 10676998, 10668651, 10662619, 10662308, 10631167, 10605865,
10583366, 10567538, 10555901, and 10537653.