



U.S. Department
of Transportation

**National Highway
Traffic Safety
Administration**

ODI RESUME

Investigation: EA 19-005
Prompted by: RQ18-002
Date Opened: 12/13/2019
Investigator: Antonio Moore **Reviewer:** Gregory Magno
Approver: Stephen Ridella
Subject: Windshield Wiper Transmission Failure

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: General Motors LLC
Products: 2010-2016 (Exclude 2013) Equinox and Terrain
Population: 1,700,000 (Estimated)
Problem Description: Windshield wiper transmission experiences an internal ball joint separation leading to a loss of windshield wiper function.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	602	1,303	1905**
Crashes/Fires:	1	5	6
Injury Incidents:	0	0	0
Fatality Incidents:	0	0	0

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Upgrade RQ18-002 to an Engineering Analysis

Summary:

On November 2, 2018, the Office of Defects Investigation (ODI) opened a Recall Query (RQ18-002) to assess the scope of Recall 16V-582.

General Motors (GM) initiated Safety Recall 16V-582 on August 3, 2016 to address windshield wiper failure in the Model Year (MY) 2013 Chevrolet Equinox and GMC Terrain. Failures were attributed to water and debris intrusion into the windshield wiper assembly ball joints, leading to excessive wear and eventual detachment of the affected ball joint with an attendant loss of windshield wiper function. The recall remedy addressed these conditions with the installation of an improved windshield wiper motor/transmission assembly and the relocation of a drain hole on the Air Inlet Panel at the base of the windshield.

RQ18-002 was opened to assess windshield wiper failure rates in the MY 2010-2012 and MY 2014 - 2016 Equinox and Terrain (subject vehicles).

During the course of the investigation, ODI received additional consumer complaint traffic bringing its total to 602 concerning the alleged defect in the subject vehicles. In their December 20, 2018 response to ODI's Information Request (IR) Letter, GM reported 1,303 complaints related to the alleged defect in the subject vehicles. Together, these bodies of data correspond to 1,905 unique Vehicle Identification Numbers (VIN).

GM stated the recalled vehicles exhibited double the warranty rate and five times the complaint rate of the subject vehicles and that continuing complaint traffic concerning the alleged defect in the subject vehicles stemmed from publicity surrounding Recall 16V-582.

ODI's review of GM's data confirms the stated difference in failure rates between the recalled and subject vehicles.

However, ODI believes that the subject vehicle failure rates are nevertheless elevated and that publicity alone cannot account for the continued consumer complaint traffic concerning the alleged defect in the subject vehicles.

ODI is upgrading to RQ18-002 to an Engineering Analysis to compare subject vehicle failure rates and engineering practices to those in peer vehicles.

The 602 ODI complaints stated can be viewed in a separate attachment.

ODI ID's Corresponding to the Upgrade of RQ18-002 to EA19-005

The ODI complaints cited in the RQ Upgrade / EA Opening can be viewed at www.nhtsa.gov under the following ODI identification numbers:

11255479, 11228862, 11220589, 11161707, 11241641, 11162639, 11277504, 11162811, 11222133, 11162946, 11233713, 11163078, 11245720, 11163175, 11266488, 11163224, 11219656, 11163279, 11220984, 11163500, 11222574, 11163533, 11230383, 11163847, 11240175, 11163922, 11243820, 11164295, 11252127, 11164380, 11257908, 11164666, 11270191, 11164833, 11280693, 11164840, 11220007, 11164848, 11220830, 11165083, 11221560, 11165351, 11222386, 11165632, 11222855, 11165669, 11229402, 11166054, 11231327, 11166145, 11234217, 11166703, 11240727, 11170647, 11242922, 11170941, 11244952, 11171118, 11246262, 11171139, 11253549, 11171576, 11256951, 11171631, 11258932, 11171712, 11267889, 11171840, 11276999, 11171903, 11279446, 11172016, 11282025, 11173005, 11219938, 11173049, 11220222, 11174936, 11220618, 11175101, 11220862, 11175177, 11221290, 11176268, 11221847, 11176460, 11222286, 11176575, 11222447, 11176602, 11222700, 11176648, 11228573, 11176651, 11229190, 11179890, 11229924, 11179974, 11230788, 11179979, 11231455, 11180136, 11233914, 11180141, 11234770, 11180167, 11240295, 11180869, 11241192, 11181040, 11242165, 11181189, 11243551, 11181421, 11244516, 11182854, 11245426, 11183761, 11245950, 11185529, 11246580, 11185599, 11252749, 11185615, 11254454, 11186928, 11256311, 11189838, 11257229, 11190730, 11258325, 11191175, 11258960, 11191542, 11267184, 11192784, 11268179, 11192795, 11271347, 11193321, 11277327, 11193773, 11277779, 11193918, 11279554, 11194286, 11281185, 11194401, 11161462, 11195344, 11219936, 11195970, 11220004, 11196074, 11220132, 11196509, 11220387, 11202536, 11220598, 11202606, 11220644, 11202674, 11220836, 11202814, 11220875, 11202933, 11221232, 11203320, 11221513, 11203586, 11221817, 11203642, 11221968, 11203732, 11222275, 11203938, 11222352, 11204138, 11222398, 11204163, 11222453, 11205194, 11222576, 11205452, 11222840, 11205472, 11222964, 11205508, 11228634, 11205660, 11228907, 11205698, 11229306, 11205715, 11229506, 11205777, 11230069, 11205848, 11230397, 11205907, 11230949, 11206055, 11231427, 11206215, 11233223, 11206399, 11233766, 11206586, 11233992, 11206605, 11234550, 11206760, 11235109, 11206795, 11240257, 11207007, 11240612, 11207228, 11240827, 11207345, 11241540, 11207581, 11241682, 11208149, 11242771, 11208171, 11243219, 11208439, 11243806, 11208476, 11244492, 11208544, 11244585, 11208736, 11245380, 11208838, 11245478, 11208890, 11245826, 11209181, 11246195, 11209428, 11246451, 11209958, 11246746, 11210160, 11252165, 11210208, 11253333, 11210327, 11254030, 11210731, 11254886, 11216919, 11256184, 11216977, 11256737, 11217082, 11257205, 11217121, 11257299, 11217132, 11258024, 11217342, 11258931, 11217388, 11258946, 11217395, 11265714, 11217513, 11267052, 11217908, 11267389, 11218036, 11268054, 11218258, 11270121, 11218319, 11270372, 11218336, 11276968, 11218481, 11277239, 11218708, 11277454, 11218834, 11277749, 11218859, 11278886, 11219010, 11279488, 11219093, 11280607, 11219181, 11280767, 11219260, 11281673, 11219382, 11282632, 11219390, 11219566, 11149695, 11114247, 11092331, 10503860, 11130429, 10541927, 11154426, 10563318, 11104524, 10575798, 11121225, 10606640, 11140278, 10608237, 11151160, 10609595, 11088647, 10616410, 11100710, 10616433, 11111879, 10631027, 11118344, 10649431, 11123822, 10653487, 11131746, 10670814, 11143395, 10701877, 11150064, 10714912, 11152416, 10717719, 11156591, 10731022, 11090396, 10745163, 11097749, 10748339, 11102881, 10778911, 11109892, 10785742, 11113227, 10816714, 11115200, 10822215, 11120229, 10824214, 11122134, 10836409, 11128391, 10839780, 11131148, 10861563, 11132984, 10872781, 11141948, 10872788, 11144617, 10888124, 11149783, 10891777, 11150113, 10897418, 11151678, 10902045, 11153738, 10902978, 11155683, 10903099, 11160736, 10904399, 11089154, 10904953, 11090757, 10905067, 11094092, 10906811, 11098812, 10908236, 11101788, 10910830, 11103964, 10910861, 11109715, 10914014, 11111056, 10915420, 11113057, 10918539, 11113818, 10918780, 11114930, 10919978, 11115439, 10926430, 11118912, 10927781, 11121070, 10929404, 11121688, 10936848,

ODI ID's Corresponding to the Upgrade of RQ18-002 to EA19-005

11123191, 10937485, 11124424, 10939746, 11129319, 10940412, 11130498, 10944575, 11131625, 10947330, 11131998, 10947373, 11133505, 10948484, 11141532, 10956464, 11142556, 10957864, 11143797, 10959179, 11145361, 10966111, 11149768, 10967913, 11149865, 10968451, 11150079, 10969060, 11150277, 10969233, 11151562, 10971156, 11151947, 10971168, 11152998, 10978808, 11154186, 10979148, 11155345, 10979424, 11155817, 10979727, 11156725, 10980168, 10426863, 10983305, 11088755, 10983308, 11089287, 10983717, 11090435, 10984174, 11090928, 10984194, 11093840, 10984664, 11097603, 10991072, 11098430, 10991629, 11099130, 10991846, 11101563, 10992079, 11102859, 10992175, 11103754, 10992229, 11104177, 10992486, 11105094, 10992576, 11109817, 10993253, 11110200, 10993964, 11111428, 10994031, 11112046, 10995799, 11113095, 10995863, 11113550, 11000497, 11113956, 11000899, 11114275, 11000974, 11115066, 11001348, 11115402, 11002458, 11115444, 11002647, 11118346, 11003292, 11119873, 11003655, 11120360, 11003814, 11121195, 11004235, 11121520, 11006806, 11122075, 11010571, 11122767, 11011353, 11123611, 11012552, 11123984, 11012777, 11128085, 11012878, 11129118, 11014259, 11130405, 11015204, 11130489, 11015587, 11131127, 11016447, 11131569, 11018680, 11131700, 11018692, 11131996, 11018750, 11132939, 11018810, 11133334, 11022159, 11139481, 11022306, 11141485, 11022663, 11141569, 11023716, 11142115, 11024889, 11143342, 11030472, 11143687, 11032833, 11144160, 11032867, 11144627, 11034164, 11149453, 11035407, 11149711, 11039322, 11149776, 11039559, 11149800, 11044791, 11150004, 11047598, 11150071, 11047934, 11150081, 11051575, 11150125, 11058562, 11150367, 11064945, 11151333, 11065454, 11151672, 11066756, 11151787, 11067199, 11152155, 11073026, 11152963, 11073184, 11153593, 11075540, 11154022, 11075577, 11154189, 11075803, 11155338, 11078328, 11155491, 11080815, 11155740, 11083468, 11155845, 11083611, 11156622, 11084188, 11156958, 11085034, 11161099, 11085107, 11088331
