U.S. Department of Transportation

National Highway Traffic Safety Administration

ODI RESUME

OFFICE OF DEFECTS INVESTIGATION

NHTSA

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Investigation: PE 21-007
Date Opened: 03/11/2021 **Date Closed:** 11/01/2021
Investigator: Samuel Wilson **Reviewer:** Bruce York-B
Approver: Stephen Ridella
Subject: 2015 Britax ClickTight Frontier XE

MANUFACTURER & PRODUCT INFORMATION

Manufacturer: Britax Child Safety, Inc.
Products: 2015 Britax ClickTight Frontier XE
Population: 397,938

Problem Description: A subject car seat failed structurally during a frontal collision potentially contributing to the death of the child occupant.

FAILURE REPORT SUMMARY

	ODI	Manufacturer	Total
Complaints:	1	1	1**
Crashes/Fires:	1	1	1**
Injury Incidents:	0	0	0
Fatality Incidents:	1	1	1**
Number of Fatalities:	1	1	1**

** Total eliminates duplicates received by ODI and manufacturer.

ACTION / SUMMARY INFORMATION

Action: Close this Preliminary Evaluation.

Summary:

In view of the information gathered during this investigation, no determination as to the cause of the incident seat structural failure has been established. With over two million subject and Britax peer child seats in service, no additional structural failures were identified. Given these circumstances, ODI is closing this investigation. Closing PE21-007 does not constitute a finding by NHTSA that a safety related defect does not exist, and the agency reserves the right to take additional action if warranted by future circumstances.

Please see attached closing document for a complete summary.

Summary: The Office of Defects Investigation (ODI) opened this Preliminary Evaluation (PE21-007) following ODI's grant of a Defect Petition (DP20-003). ODI opened DP20-003 on April 3, 2020 in response to the receipt of two complaints (11319247, 11317879) and a Petition letter from Dr. Alisa Baer dated March 25, 2020. ODI closed DP20-003 on March 15, 2021, and opened PE21-007 on March 11, 2021, to investigate potential structural failure allegations in 2015 Britax Frontier ClickTight XE child seats. ODI evaluated similar Britax child seats (peer child seats) in order to establish a broader data set upon which to base its assessment.

The Petitioner requested the National Highway Traffic Safety Administration investigate the Britax Frontier ClickTight child seat (subject child seat) for "catastrophic structural failure that allows the harness to completely pull through the seat" during a crash. According to the Petitioner, this type of structural failure resulted in the death of a 4-year-old child who was seated in a Britax Frontier ClickTight XE, model E1A076L seat manufactured in 2015 during a vehicular crash that occurred in November 2019. The crash involved a 2016 Nissan Rogue that struck a telephone pole at the front of the vehicle, catching fire, and deploying multiple airbags. At the time of the accident there were two other passengers in the vehicle who both survived the crash, the driver and a 3-year old child who was positioned in a non-subject child seat on the rear passenger side. A police report indicated the Britax subject child seat was suspected of having a manufacturing defect that was a factor in the death of the child occupant.

In connection with DP20-003, on August 19, 2020, ODI representatives inspected the failed Britax subject child seat and the Nissan Rogue vehicle. The child seat inspection revealed multiple cracks to the seat shell and missing plastic pieces of the seat including a piece of the Head Restraint Height Adjuster locking mechanism. During the inspection of the Nissan Rogue vehicle, the missing height adjustment piece was located.

An inspection of the Britax child seat also found the harness was installed in the wrong orientation. This suggests the harness was completely removed at some point in time and re-installed incorrectly. Similarly, the tether strap was twisted. It was also found that the un-detachable headrest and recline of the vehicle seat appeared to interfere with the ability for the subject child seat to lay flush with the vehicle seat. As the child occupant was removed from the seat and the seat removed from the vehicle by emergency responders, ODI cannot be sure of the harness, strap, and recline orientations of the child seat at the time of the crash.

In addition to the installation and assembly concerns, a report by the Chief Medical Examiner for the State of Maryland that indicates that the deceased child weighed 44 pounds, which is 10% higher than the maximum recommended weight (40 pounds) for a lower anchors and tethers for children (LATCH) installation of the subject child seat.

NHTSA sent Information Requests (IR) to Britax. As discussed in Britax's IR responses, the subject child seat design was initially tested by MGA Research Corporation in 2013 and tested each fiscal year thereafter through 2019 in connection with NHTSA's ongoing Federal Motor Vehicle Safety Standard (FMVSS) compliance testing program. FMVSS No. 213 establishes the minimum performance requirements for child restraint systems. Britax said the subject child seat passed all tests conducted by Britax and MGA in strict conformance with the test procedures of FMVSS No. 213 since its launch in 2013.

In its response to the IRs, Britax also discussed additional dynamic crash testing of the subject child seats it conducted. Specifically, Britax tested subject child seats with a 2015 date of manufacture in efforts to reproduce the event in the incident crash that led to this investigation. Britax performed dynamic testing with a weighted 3-year-old test dummy (40 pounds) harnessed in the subject child seat with LATCH installation in accordance with FMVSS No. 213. The seat passed FMVSS No. 213 testing, the rip stitching tore, and no structural failure was identified. Britax also performed dynamic testing with a weighted 6-year-old test dummy (65 pounds) harnessed in the subject child seat with LATCH installation. Although this is not a test configuration pursuant to FMVSS No. 213 because the weight limit exceeds the amount permitted by LATCH installation, the seat passed the parameters of FMVSS No. 213, the rip stitching tore, and no structural failure was identified despite such overload testing.

As part of this investigation, ODI requested Britax inform the office of any similar structural failures of the subject or similarly design child seats. Britax reviewed its records, and with over two million subject and Britax peer child seats manufactured, other than the November 2019 incident involving the 2015 Frontier ClickTight child seat, it has received no other report of a subject or peer child seat failing structurally during, or otherwise incurring structural damage as a result of, a vehicle crash event.

With the inspections conducted by ODI and Britax, the child seat installation and re-assembly factors call into question the proper installation, prior usage, and storage of the incident seat. The contributing factors to this incident are likely the severe nature of the crash and evidence of improper installment and misuse of the seat. ODI also notes that the prior usage of the incident seat could not be established and is still unknown.

In view of the information gathered during this investigation, no determination as to the cause of the incident seat structural failure has been established. With over two million subject and Britax peer child seats in service, no additional structural failures were identified. Given these circumstances, ODI is closing this investigation. Closing PE21-007 does not constitute a finding by NHTSA that a safety related defect does not exist, and the agency reserves the right to take additional action if warranted by future circumstances.