Chronology of Defect/Noncompliance Determination for Amended 573 Notice

On March 25, 2015 a customer contacted LCI regarding a broken stud on three consecutive units on the production line. The location of the breakage was different than what LCI would typically see on a cross thread or lug nut issue and all three were on a TRP supplied hub and drum assembly. On March 26, 2015 LCI received notification of three additional studs breaking and it was decided to place all product from LCI's Indiana plant on hold that had the code SZ141223 thru SZ141228 on the TRP assemblies until further testing could be completed. After initial testing it was decided on March 27, 2015 that the studs in the TRP hub and drum assemblies may be defective. LCI submitted its 573 Notice to NHTSA on April 3, 2015 recalling 5000 axles manufactured between March 12 and March 26, 2015 that had TRP hub and drum assemblies.

On April 6, 2015 LCI received notification of a broken stud during the customer's assembly process that was manufactured from LCI's Idaho facility. LCI began investigating the hub and drum assemblies used for axle production at the Idaho facility. LCI was notified of additional stud fractures on April 7, 22, 23, 27 and May 4 for axles produced at Indiana's facility using TRP and Axle Teknology hub and drum assemblies. LCI was also notified on April 28 and 30 regarding additional stud fractures for axles using TRP hub and drum assemblies produced at Idaho's facility.

All of the manufacturing data and reported stud fractures was gathered and analyzed. There have been no known stud factures that have occurred on units in the field and there are no reported injuries, property damage incidents or crashes associated with a stud fracture from the affected recall population. All documented known stud fractures occurred during the installation of the wheels on the hubs or during LCI's field investigation following the filing of the initial 573 Notice and involved B-blank studs. Total of 25 B-blank stud fractures reported for the Indiana facility out of a population of 890,000 studs. The dates of manufacture of the affected Indiana axles was March 13 and 17 for TRP hub and drum assemblies and April 10, 13, 14 and 15 for Axle Teknology hub and drum assemblies. Total of 18 B-blank stud fractures for the Idaho facility out of a population of 155,000 studs. The dates of manufacture of the affected Idaho axles was March 20, 23, 24, 25, 26, 27, 30 and April 1, 2, 3, 6 and 7 for TRP hub and drum assemblies.

During the course of the investigation it was discovered that both TRP and Axle Teknology were incorporating B-blank studs from the same supplier that were potentially defective. All B-blank stud fractures were reported within 15 working days of the date of manufacture of the axles. Independent lab results of the B-blank studs show the fracture mode to be a brittle condition that would fail during a normal torque process at installation. LCI also tested internally and by an independent lab additional non B-blank studs for use in the hub and drum assemblies.

On May 12, 2015, LCI decided to expand the 15E-029 recall population to include the additional hub and drum assemblies from the affected Indiana and Idaho production runs.