

## Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision:

- November 2020: Kawasaki Motors, Ltd. (KML) received a report of abnormal engine noise on a vehicle from its Japanese distributor (KMJ). Upon inspection of the vehicle, KML discovered that the camshaft chain tensioner was locked.
- November 2020: KML asked the supplier of the camshaft chain tensioner to inspect the failed part and report back. The supplier found no abnormalities and reported that there may have been a maintenance issue on the failed unit. The supplier reported to KML that it did not expect further issues with the part.
- March – June 2021: KML received two additional reports of abnormal engine noise from KMJ, but none from other markets.
- September 2021: KML received a report that a vehicle lost power from KMJ. No accident or injuries were reported.
- September 2021: KML Quality Assurance department shared these reports with KML Research & Development department and the supplier, then re-opened its investigation into this issue.
- November 2021: As a result of the in-house investigation KML discovered that certain components of the camshaft chain tensioner varied dimensionally between units, though each was within the tolerance specified by KML for the component. However, KML did not know whether these variances between units were creating the problem.
- February 2022 - September 2022: KML and the supplier continued to test the camshaft chain tensioner to replicate a lock up, first by manually compressing the tensioner, and then during engine operation. KML could not successfully replicate a lock up of the camshaft chain tensioner during engine operation.
- October 2022: After an additional report of lost engine power from KMJ, KML began to look for a solution to this issue, though it still had not determined for certain that the variances between parts were the cause of the issue.
- November 2022: KML decided to use a cam chain tensioner from a different model, which does not have this issue, on these models to eliminate this issue.
- December 2, 2022: KML decided to initiate a recall campaign on these models to ensure that this issue does not occur on vehicles already in the field.