

Chronology

In July of 2024, Kawasaki Motors, Ltd. (Kawasaki) received a report from its European distributor describing an engine stall after abnormal engine noise on a ZX636J model motorcycle. The dealer disassembled the engine compartment of the vehicle in question and found that the #5 metal crankshaft bushing had seized and was caught in the cam chain, shifting the valve timing and leading to engine noise.

The following month, Kawasaki identified an increasing number of claims for replacement of the #5 metal crankshaft bushing in the US market for the ZX636J model. This same increase of claims was not observed for this model in other markets, despite no significant differences between the vehicles distributed globally. Kawasaki requested failed engine components back from dealers and began to analyze the returned parts. In conjunction with this activity, Kawasaki also reviewed whether there were any changes to the manufacturing process or design that could have contributed to these reports of engine failures. Kawasaki did not identify any manufacturing abnormalities, design changes or manufacturing changes that were likely to have caused or contributed to the observed failures.

Kawasaki, through its US distributor, was aware that owners of the ZX636J in the US were modifying the vehicle from its stock condition, including with the addition of a slip-on muffler that reduces, and sometimes destabilizes, engine power at low speeds. Because of this reduced/unstable engine power at low speeds, users often avoid running the engine in the low RPM range. These aftermarket mufflers also change the acceleration characteristics of the vehicles, allowing more abrupt acceleration and, again, more usage at higher RPMs. These combine to create stress on the engine beyond normal usage parameters. Therefore, after first identifying this issue, Kawasaki's early hypothesis was that some combination of aftermarket modifications and extreme usage at high RPMs was putting extreme stress on the engine that was unique to the US market, and not indicative of a defect. Nonetheless, Kawasaki continued to investigate the issue.

Over the course of Fall 2024, Kawasaki requested additional failed engines and engine components from the United States in order to continue its investigation. Kawasaki checked these engines and engine components for proper fit between the crankshaft case and the components contained within it, but no abnormalities were found in the engines that were inspected. Kawasaki also checked for leaks or abnormalities in the oil line, but none were found. Kawasaki continued to monitor the issue, still hypothesizing that there were unique factors related to the usage or modification of the vehicles in the US market.

In late February 2025, Kawasaki Motors Corp. U.S.A. received an inquiry from NHTSA. The agency raised six different field reports across five unique VINs which reported internal engine failures, including some with reports of preceding noise. Kawasaki initiated additional activities related to those field reports and reports of engine failures in general beginning in March 2025. Kawasaki observed that some of the units reporting engine failures had confirmed aftermarket modifications. These included, for example, modifications to the Electronic Control Unit (ECU), installation of aftermarket mufflers and aftermarket air filters. As mentioned above, all of these components have the potential to encourage or cause high stress on the engines. Kawasaki compiled data related to aftermarket modifications while also considering other factors such as lack of oil due to improper maintenance or issues with how the crankshaft was held in place. Kawasaki again bought back multiple additional vehicles to ship to Kawasaki in Japan and interviewed vehicle owners to better understand what owners were experiencing, any noises/warnings that preceded the failures and whether there were modifications to the failed vehicles. The data Kawasaki reviewed showed that some owners did report vibrations and engine noise preceding failures. No crashes or injury incidents had been reported (then or now). Kawasaki also conducted a further review of warranty claims and returned additional engines and parts to Kawasaki in Japan for advanced technical analysis. Kawasaki provided an update on these activities to NHTSA on April 16, 2025, and also advised the agency on upcoming steps in its investigation.

In mid-May, Kawasaki completed its renewed analysis of field data which indicated that there was a sharp uptick in warranty claims for vehicles produced between November 2023 and January 2024 (affecting Model Years 2024 – 2025) and that most of the claims in that time period involved the #5 crankshaft bushing, though many also had confirmed aftermarket modifications or the modification status was unknown. Kawasaki also reviewed ECU data, which confirmed that US owners were operating their vehicles under higher loads, consistent with aftermarket modifications and stress beyond normal usage parameters. As a result of the investigation of the buyback engines initiated earlier, Kawasaki also found that the tightening torque of the bolts holding the crankshaft together in the crank case was sometimes elevated and higher than specified.

In May 2025, Kawasaki was able to reproduce a seizure of the #5 crankshaft bushing in a stock engine during a bench test where the bolts holding the crankshaft together in the crank case were torqued excessively. The observance of this condition was surprising given that there were manufacturing procedures in place to prevent this. Despite the observed prevalence of aftermarket modifications contributing to high stress usage in these engines, Kawasaki decided to initiate a recall campaign to make sure that excess torque on the bolts of the crankcase is not causing unexpected engine failures.

As of the date of submission, Kawasaki is aware of 2 unconfirmed reports of accidents or injuries (both reported since the recall was published) and 93 warranty claims potentially related to this issue.