

NHTSA ID: 22V908

Chronology

The specification for the fuel injection system on the vehicle originally called for a fully machined nut to be used. However, during March 2021, the nut supplier notified McLaren of an imminent stock shortage of fully machined nuts and proposed a switch to cold formed nuts, which were already used widely by their other customers. The cold formed nuts had been successfully validated by the nut supplier and in durability testing performed by McLaren.

In June 2022, a vehicle with approximately 1000km of road use was driven on a race circuit, and a fuel leak occurred. Upon inspection, it was found that the cold formed nut of the left-hand high-pressure fuel pipe had loosened at the pump outlet connection.

McLaren immediately commenced an investigation. This investigation concluded that the cold formed nut had been attached with insufficient torque. To address this issue, McLaren developed and validated a bespoke tightening procedure for the cold formed nuts.

McLaren reworked all the vehicles which had cold formed nuts using the bespoke tightening procedure. Note, at this point, the vehicle was not yet been launched for sale to the general public so no vehicles produced with the original tightening procedure were ever released to the public.

In September 2022, McLaren began using fuel pipes with fully machined nuts on its production line. McLaren chose to take this action because the fully machined nuts were back in stock and did not require the bespoke tightening procedure that was required for the cold formed nuts.

At the beginning of November 2022, a different vehicle with approximately 2800km of road use was driven on a race circuit by a McLaren professional driver, and a fuel leak occurred. Upon inspection, it was found that the cold formed nut of the left-hand high-pressure fuel pipe had loosened at the pump outlet connection.

McLaren's investigation during the course of November 2022 found that the second vehicle had had the bespoke tightening procedure applied to the cold formed nuts. As such, McLaren's earlier conclusion that the root cause of the problem was insufficient torque had to be revisited and reassessed. McLaren has now concluded that the root cause of the problem is the use of a cold formed nut, which potentially can loosen when subjected to vehicle loads, in particular during dynamic driving manoeuvres commonly associated with track running.

Although there have not been any injuries reported to McLaren in relation to this issue, nor any incidents on public roads -- only the ones described above on race circuits -- McLaren has decided to conduct a safety recall to address this issue.