

### 573.6 (c) (6) - Chronology of Events

A Product Safety and Compliance Committee (PSCC) Investigation was opened on December 11, 2018 to review a concern where the retaining bolt of the crankshaft pulley has been manufactured away from specification. Engineering issued a manufacturing stop shipment to contain vehicle transportation and informed Ford Motor Company who supply the engines that a retaining bolt failure had been discovered.

Engine testing was commissioned to understand the consequences of bolt failure and confirm the effect a wrongly manufactured bolt will have.

In parallel to engine testing, the investigation identified the failure of the bolt propagated from cracks on the surface material of the bolt leading to hydrogen embrittlement. Bolts from the suspect batch were quarantined at the engine assembly plant and further investigations undertaken.

In late December 2018 the investigation identified the affected batch of bolts were heat treated through a different sub-supplier. All suspect assembled engines in engine plant and vehicle assembly plants control had replacement crankshaft pulley bolts installed while the severity of this issue was investigated. The bolts installed were manufactured to the correct specification. For vehicles where a suspect assembled engine has already been installed, a Stop Shipment was issued from each affected Vehicle Assembly plant on December 12, 2018. This was followed by an Update Prior to Sale instruction to dealers to install a replacement crankshaft pulley.

At the PSCC on January 08, 2019 it was confirmed that this issue was only associated with a specific batch of bolts that had been manufactured away from specification. The PSCC concluded that this concern should be progressed to the Recall Determination Committee (RDC) to repair vehicles in the market.

The RDC reviewed all information on January 10, 2019 and concluded that the concern represented an unreasonable risk to safety and all affected vehicles should be recalled and fitted with a crankshaft pulley bolt that has been manufactured to the correct specification.

Jaguar Land Rover is not aware of any reports of accidents or injuries attributed to this condition.