

THREADLOCKING MOUNTING BOLTS AGAINST LOOSENING



! SITUATION

A mining operation was facing repeated loosening and breaking of jaw crusher mounting bolt due to heavy vibrations. The bolt, post loosening, got sheared. This caused the crusher frame to pound against the concrete footing, damaging both the frame and the footing. Additionally, the potential collapse of jaw crusher presented a severe safety issue.

🔧 CONVENTIONAL METHOD USED

? REASON FOR FAILURE

Split spring washers do not solve the root cause of vibrational loosening which is the gap between the nut and the bolt. This gap allows side to side movement when the crusher is subjected to shock and vibrations.

LOCTITE SOLUTION

LOCTITE 277

LOCTITE 277 Threadlocker was used to fix the issue. The product addressed the root cause of the loosening which is the gap by filling it completely and solidifying into a hard thermoset plastic that strengthens the anchor bolts.



RESULTS



Prevents fastener loosening from extreme shock and vibration



Stops subsequent concrete footing damage



Prevents catastrophic equipment failures and restores a safe work environment