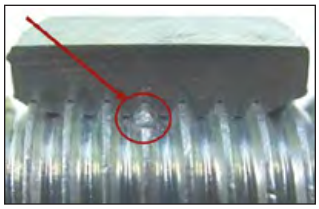
Product Information Report
Nicked Threads

Nicked thread on cap screw interfering with hex nut.



Overview

All fasteners, no matter the manufacturer or supplier, can have nicked threads. This is a side effect of the manufacturing process and does not necessarily indicate a quality issue.

Nicked threads are localized indentations or misalignments of the threads on a fastener. Nicks can occur anywhere along a fastener, from the first thread, where they may cause difficulty in starting the nut, to the end of the thread.

Causes of Nicked Threads

Thread Rolling Machine

Fastener manufacturing is a very automated process. Once the threads are rolled onto the body of the fastener they fall into a hopper, landing on previously threaded fasteners. At this stage of the manufacturing process the fasteners are still soft. This is why the nicks form, especially on the larger, heavier fasteners.

During the heat-treatment process the soft fasteners are hardened causing the nicks to become permanent. The last process that the fasteners go through is the plating process. This involves dipping the fasteners into a liquid and electro-depositing the zinc plating. Once the plating is applied to the fasteners the plating can actually exaggerate any nicks that are present.

The only way to eliminate any nicks on fasteners is to take a hands-on approach to the manufacturing process. Every fastener would be caught and set into a rack by hand. This would add time and cost to the manufacturing process. This is not feasible due to the number of fasteners manufactured during a production run.

Solution

The use of a thread restorer can help clean up the threads, making threading a hex nut onto a fastener easier. Using a wrench or socket can also ease the process.