



**Newport News
Shipbuilding**

May 8, 2018

Dear Valued Supplier,

This alert is an advisement regarding installation of self-locking nuts. In 2015, Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility (IMF) reported several self-locking nuts received from the National Stock System failed due to extrusion of the self-locking element during installation. These nuts were determined to be manufactured from a single lot and caused by a machining error that occurred during the manufacturing process. The groove that retained the locking element was mis-machined.

In reviewing this issue, Defense Contract Management Agency (DCMA) reported that the manufacturer made dimensional changes to shop drawings without re-performing qualification testing. The base specification dimensions were not changed, but changes were made to dimensions of the part of the nut that retains the locking element. NAVSEA's position is any drawing dimension change is a design change requiring re-performance of qualification testing, at a minimum for the tests affected by the change.

NAVSEA concluded the two issues above are not related to each other (i.e., the qualification issue did not cause the extrusion issue).

Continued supply and use of self-locking nuts is allowed; however, NNS requests any suppliers or installers of self-locking nuts be aware of this issue and give attention to identifying any deficient self-locking elements or any installation failures observable by excessive extrusion of the self-locking element and noticeably lower starting and running torques. NNS requests any significant failures be reported to NNS at the below e-mail, indicating the manufacturer, lot number, quantity, and whether any of the failed lot was shipped to NNS. Failed or defective lots should be returned to the manufacturer for root cause analysis and replacement.

This issue applies to nuts made to specifications NASM 25027 and all variants of MIL-DTL-25027 including MIL-N-25027/1 and all MS sheets based on these specifications (e.g., MS17828, MS17829, MS17830, etc.).

If you have any questions or concerns with regards to this Alert, please contact Marian Morrow, NNS Supplier Quality, email LettersofAdvisement@hii-nns.com or phone 757-688-0208.

Sincerely,

R. L. Simpson
Manager, NNS Supplier Quality

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