

GENERAL DYNAMICS

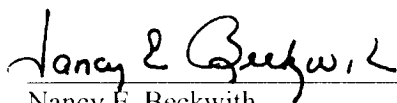
Electric Boat

JUN 19 2007

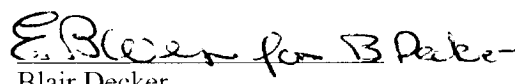
SQ/07-26

Dear Valued Supplier,

1. The purpose of this letter is to notify our suppliers that non-conforming nuts have been supplied to Electric Boat, Northrop Grumman Newport News and other agencies from fastener suppliers that produce nuts by cold forming.
2. The non-conforming nuts, sizes 1/4 inch through 7/8 inch, have been found to have minor diameters that are not in accordance with Mil-S-1222 and commercial nut specifications. Specifically, the minor diameter of the internal thread varies along the length of the nut causing a portion of the minor diameter to exceed the maximum allowable permitted by Mil-S-1222 and commercial specifications.
3. It has been reported, for example, that the non-conforming minor diameter of 1/2 inch nominal alloy steel nuts exceeds the specification requirement by as much as 0.026 inches. Additional investigation has revealed that the minor diameter dimensional non-conformance for 5/8 inch nickel copper nuts has exceeded specification requirements as much as 0.027 inches. The non-conformance apparently applies to several sizes of nuts and of various materials commonly used to manufacture plain, jam and heavy hex nuts.
4. The non-conforming nuts were manufactured using a cold forming (heading) process, after which they are tapped on a separate machine. The non-conforming minor diameter is believed to be attributed to worn tooling during the manufacturing process and a deficiency with the supplier's inspection process. More than one fastener manufacturer has been identified as supplying nuts with similar minor diameter dimensional non-conformances and inspection techniques.
5. It is noted that the only method currently listed for System 22 minor internal thread inspection is the use of GO/NO GO plain cylindrical plug (pin) gages. Other options previously allowed by ASME B1.3 (1992) were deleted by ASME B1.3 (2001). The use of threaded GO/NO GO plug gages, calipers or other methods are not acceptable methods for measuring internal thread minor diameter limits. Fastener manufacturers are reminded that Mil-S-1222 requires thread attributes to be inspected by using System 22 gaging systems as defined by ASME B1.3M.
6. Electric Boat requests suppliers to be aware that nuts they have in stock or procured may have similar minor diameter non-conformances. It is strongly suggested that in addition to your normal inspection that all nuts plain, jam and heavy hex nuts be inspected at receipt for nonconforming minor diameters using solid pin gages from both ends prior to acceptance. It is also recommended that current stock be reviewed and purged of nonconforming nuts prior to use or distribution. Self Locking nuts to Mil-N-25027 are not suspect.
7. Any questions concerning the above can be forwarded to Gary Cabral of Electric Boat Supplier Quality at 860-433-8646 or E-mail gcabral@cbmail.gdeb.com.



Nancy E. Beckwith
Manager of Supplier Quality



Blair Decker
Director of Materials Management

Xc:
All Active Suppliers
Data Bank