Bell Helicopter
A Textron Company

OPERATION SAFETY NOTICE GEN-11-43
11 February 2011
Revision A, 16 September 2011

TO: All owners and operators of Bell helicopters

SUBJECT: NAS1291 NUTS AND NAS626 BOLTS

Revision A of this bulletin introduces additional part numbers of hardware affected by the different manufacturing processes.

Bell Helicopter recently investigated reports of NAS1291-7/-9/-10 self-locking nuts and NAS626-24 bolts cracking after installation. Investigation has revealed that the nuts had a high concentration of hydrogen and the cracking was the result of hydrogen embrittlement. Root cause of the bolt failure was a result of a quenching crack during manufacture.

Although the investigation concluded that these particular nuts and bolt were manufactured by one specific vendor, multiple vendors manufacture the same standard hardware. Standard hardware manufacturing processes are not controlled or monitored by Bell Helicopter.

Standard hardware such as AN, MS and NAS is used throughout the aviation community in multiple applications. Bell Helicopter's inspection protocols for all models specify to inspect for security, corrosion and condition of attachment hardware at specified intervals.

This OSN is released to remind all operators of the importance of inspecting standard hardware for condition and to replace if required. Corrosion, loss of tare torque and cracks are all reasons for replacement.

Figure 1: Typical NAS1291 nut application and crack due to hydrogen embrittlement.

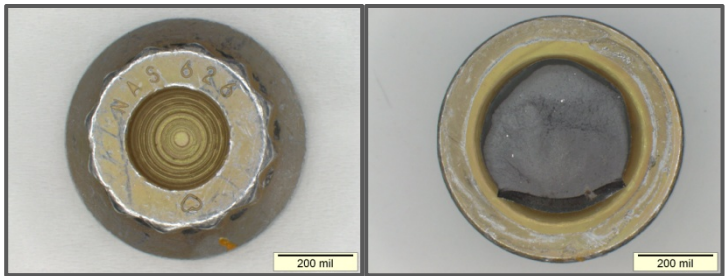

Figure 2: Broken NAS626-24 bolt has a result of incorrect quenching operation during manufacture

For any questions regarding this letter, please contact:

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