TO: All owners and operators of Bell helicopters

SUBJECT: CHEMICALLY ASSISTED SUPER FINISHING

Bell Helicopter has adapted Chemically Assisted Super Finishing as a replacement for black oxide treatment in the manufacturing of gears. Some operators may have already received the chemically assisted super finishing processed gears as spare part replacements. These gears have the same part number as the black oxide gears but will have a totally different look, as the photograph below shows.
What chemically assisted super finishing is and how it works is beyond the scope of this Information Letter. However, it provides an improved surface finish and has been proven to improve the dry resistance to corrosion over non-coated or black oxide; and, has the added benefit of being more cost effective and environmentally friendly. There are no changes to the damage limits or repair procedures for these gears, all current limitations and repairs applicable to the black oxide gears are the same for the chemically assisted super finish ones.

It will take some time to adapt this process across the Bell product line, and not all previously black oxide processed gears will receive the new process. A small, select number of gears, principally those in accessory gear applications, will receive neither treatment. If you receive a gear from Bell Helicopter that used to be black oxide treated but now has a bare bright polished appearance, it is the Chemically Assisted Super Finishing process.

For any questions regarding this letter, please contact:

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