

R22 SERVICE BULLETIN SB-113A

(supersedes R22 SB-113)

DATE: 20 December 2017 **REV A:** 15 January 2018

TO: R22-series Owners, Operators, and Maintenance Personnel

SUBJECT: A051-1 Belt Tension Actuator

ROTORCRAFT AFFECTED: R22-series helicopters S/N 0002 thru 4688.

TIME OF COMPLIANCE: By 31 December 2018.

BACKGROUND: RHC has received A051-1 actuators which have buckled due to overtensioning of the drive vee-belts. Normally, the actuator fuse will prevent an overtension. However, in some cases, a vibrating switch may allow the actuator to gradually overtension without blowing the fuse. Switch vibration can be aggravated by an out-of-balance cooling fan. RHC has designed an electronic time delay which prevents the actuator motor from running until spring switches contacts have been closed for approximately 1/4 second. The time delay will prevent the actuator from overtensioning and also prolong actuator switch life. This bulletin accomplishes for R22 helicopters the same upgrade that R44 Service Bulletin SB-33, FAA-Approved in May 1999, accomplished for R44 helicopters.

COMPLIANCE PROCEDURE:

1. Order one KI-242 kit from RHC Customer Service and install per kit instructions.
2. Verify correct actuator fuse is installed. Buss (brand) AGC 1.5A fuse is the only RHC-approved fuse. Operating with any other fuse increases risk of actuator malfunction.
3. Examine helicopter maintenance records to determine if fanwheel has ever been removed for maintenance (procedures such as alternator belt or drive belt or actuator removal, or crankshaft seal replacement, require fanwheel removal). If fanwheel balance was not documented at re-assembly, check balance per R22 Maintenance Manual § 6.240.
4. Make appropriate maintenance record entries.

APPROXIMATE COST:

Parts: \$140 for one KI-242 kit.

Labor: 1.0 man-hour if fanwheel balance is not required.
2.0 man-hours if fanwheel balance is required.