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Instructions for Continued Airworthiness

Manual No. 004

Cessna Tail Cone Reinforcement Angle Splice STC

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Record of Revisions

Rev Level	Date	Page	By	Explanation of Revision
IR	4/26/2019	-	Doug Keller	Initial Release

Distribution of Changes

A current copy of this manual will be maintained on the QMI, Inc. Website www.qualitymade.us

Introduction:

The QMI, Inc. Cessna Tail Cone Reinforcement Angle Splice STC is designed to replace the OEM tail cone reinforcement angle in the area where cracks have been known to propagate.

Description:

The QMI, Inc. Cessna tail cone reinforcement angle splice system is composed of a LH Tail Cone Reinforcement Angle Splice QMI-0712048-6R and a RH Tail Cone Reinforcement Angle Splice QMI-0712048-7R. The splices are to replace the OEM reinforcement angle in the area of high stress that is prone to cracking. This STC can also be used on aircraft that already have cracking as a means to return the aircraft back to an airworthy state.

Instructions for installation of this kit are detailed in the "Installation Instructions" which can be found on our web site: www.qualitymade.us.

Airworthiness Limitations

"The Airworthiness Limitations section is FAA approved and specifies maintenance required under 14 CRF, Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved."

Limitations:

Currently there are no components of the QMI, Inc. Cessna tail cone reinforcement angle splice Kit that have a time limited mandatory replacement. Cessna Service Letter SEL-55-01 "Stabilizers-Tail-cone and Horizontal Stabilizer Inspection" specifies inspection of this area of known crack propagation every 500 flight hours or 5 years, whichever comes first. After installation of this STC kit, inspection will not be required until cumulating 1500 flight hours or 10 years whichever comes first. After the initial inspection, inspections will be required every 500 flight hours or 5 years whichever comes first.

Instruction for Continued Airworthiness:**Inspection Criteria****100 Hour / Annual****(100 hour or Annual inspection interval, whichever comes first)**

1. **Inspect** – The STC installed (3) AN426AD-4-6 flush rivets and the (1) AN470AD-5-7 rivet on both the LH & RH sides of the aircraft for loosening which will be evident by a blacking aft of the rivet

heads. If loosening is discovered, remove the affected rivet(s) and replace them, if necessary due to oblong or damaged rivet hole(s) install the next larger diameter rivet in its place.

2. **Inspect** – The STC installed (2) AN525-832 bolts on both the LH & RH sides of the aircraft for loosening which will be evident if the bolt is allowed to rotate freely with the application of a torque applied to the head of the bolt. If found to be loose tighten as necessary. If unable to tighten replace the bolt, washer, and nut and tighten as necessary.
3. **Inspect** – for cracks or dents in the fuselage skin around the area of the splice installation. If cracks or dents are found remove the horizontal stabilizer and inspect per Cessna Service Letter SEL-55-01. Contact QMI, Inc. immediately any anomalies are found with the installed Tail Cone Reinforcement Angle Splice STC.
4. **Inspect** –The horizontal stabilizer for looseness. Grab the leading edge a push up and down observing any excessive play. Grab the LH & RH tips and push up and down as well as for and aft observing any excessive play. If excessive play is observed remove the horizontal stabilizer for further internal inspection. Inspect for cracks at the horizontal pivot point per Cessna Service Letter SEL-55-01. Contact QMI, Inc. immediately any anomalies are found with the installed Tail Cone Reinforcement Angle Splice STC.
5. **Inspect** –The elevator and stabilizer trim movement to ensure that it is free and not under any restriction or binding. If restriction or binding is observed check to insure all cables and controls are free and operating normally. If all the controls and cables are free and operating normally, remove the horizontal stabilizer for further internal inspection.

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