



SCOTT'S – BELL 47, INC.

Alert Service Bulletin

7 April 2015

47-15-27

MODELS AFFECTED: Bell 47 Series

SUBJECT: Engine Throttle Linkage Installation and Safety Procedures

HELICOPTERS AFFECTED:

- All Scott's - Bell 47 Helicopters which have Marvel Schebler carburetors models MA-3, MA-3A, MA3-PA, MA-3SPA, MA4-SPA, MA4-5, MA4-5AA, MA-5, MA-5AA, MA-6AA or HA-6 installed.

COMPLIANCE:

Part I

Perform this one time inspection as described in the daily inspection of the aircraft M&O, as a function of the pre-flight check, before the next flight. This inspection is to be performed by an appropriately rated mechanic.

Part II

Perform as part of the next scheduled 100-hour or annual inspection, but not later than 90 days after release of this bulletin. Repeat Part II any time the throttle linkage connection is disassembled.

DESCRIPTION:

Since accident records have been recorded, there has been a series of incidents/accidents attributed to separation of the throttle linkage from the engine carburetor stop arm. The FAA has informed Scott's – Bell 47 that it has used the data identifying seven incident/accidents within the past forty two years and ran a risk assessment in accordance with the applicable risk guidelines. The assessment identified that the risk due to this specific issue is above the threshold for reasonable risk and as such has prompted review into a potential unsafe condition.

This ASB is released to clarify the desired means of installing throttle linkage safety wire in a method that is considered acceptable to Scott's - Bell 47.

To clarify the pilot's pre-flight check criteria and the correct installation of the throttle linkage safety wire, temporary revisions to the Model 47 M&O's have been released. To review these temporary revisions, access the Scott's – Bell 47 web site, Technical Publications section, for a downloadable version applicable to each Model 47 M&O manual.



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INSTRUCTIONS:

Part I:

1. In accordance with the pilot's pre-flight check (Daily Check) in the aircraft maintenance and overhaul (M&O) manual, check the throttle linkage connection at the engine carburetor:
 - a. Check the linkage for condition and security. Ensure that the clamped joint of the throttle linkage adapter is securely attached to the carburetor stop arm.
 - b. There should be no looseness, axial movement or other unacceptable condition between the carburetor stop arm and the throttle linkage adapter.
 - c. Check the throttle adapter clamp screw/s for security and presence of safety wire capturing both the throttle linkage and carburetor stop arm.
 - d. If the above check reveals no unacceptable condition the aircraft may be released for return to service.
 - e. Annotate the aircraft records that Part I of this ASB has been accomplished.
2. If the preceding check reveals any unacceptable condition, perform Part II of this ASB before further flight.

Part II:

1. In accordance with the applicable M&O manual, perform the following:
 - a. Match-mark the throttle linkage adapter and the carburetor stop arm to ease control rigging on re-assembly.
 - b. Disconnect the throttle linkage from the carburetor stop arm.
 - c. Check and clean the splined mating surfaces of both the carburetor stop arm and the throttle linkage adapter. The splined joint should be assembled with no application of lubricant, anti-seize or other foreign material.
2. As applicable, perform the following:
 - a. For push-pull cable or push-pull rod versions check the throttle linkage rod end for condition and security, corrosion, wear and any other unacceptable condition.
 - b. For slip-joint linkage versions, check the linkage between the throttle cam box and the throttle stop arm for condition and security, corrosion, wear and any other unacceptable condition. The splined joint should be assembled with no application of lubricant, anti-seize or other foreign material. Universal joints should be free of rotational looseness, binding, stiffness or corrosion.
 - c. Remedy any unacceptable condition prior to reassembly of the throttle linkage.
3. Re-assemble the throttle linkage in accordance with the applicable M&O and verify proper rigging and control travel of the collective control and throttle linkage.
4. Install safety wire .032 inch diameter, as described in the applicable M&O.
5. Perform engine ground run and confirm that proper engine idle RPM is achieved.
6. Perform a flight test and confirm that full power is achievable.
7. Annotate the aircraft records that Part II of this ASB has been accomplished.