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Mr. John Tallarovic Small Engine Program Manager Chicago Aircraft Certification Office 2300 E. Devon Ave. Des Plaines, IL 60018

Subject:

M250-C10 vs T63 engine

Dear Mr. Tallarovic,

Please see the responses to your questions in the letter to Mr. Mike Haerr dated 28-Mar-12:

Question: I want to clear up some lingering confusion about engine model names and conversions between military and civil engines.

Commercial Service Letter CSL 1209, Rev 2 provides RRC's recommendations for operators of military engines. The following rough equivalencies are provided:

T63-A5	M250-C18 Series
T63-A700	M250-C18 Series
T63 -A720	M250-C20 Series

Type Certificate Data Sheet (TCDS) E4CE, Rev 42 lists the following models as having military and civil equivalents.

T63-A-5	M250-C10
T63 -A-5A	M250-C10B
T63-A-700	M250-C10D
T63-A-720	M250-C20C

The TCDS does not agree completely with CSL 1209. The C10 models are not listed at all in the CSL and the CI8 is not listed as an equivalent on the TCDS. We recognize that the complete history of the military engines and their civil counterparts is quite complicated. What is the proper list of equivalent engine models? We need to minimize confusion in the field and put out a consistent message.

Response: There is no such engine as a C10, C10B or C10D. These model numbers were associated with the T63 numbers as per a US Army contract request many years ago. This is the reason you see the

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TCDS that way and the old original data tags had, for example: T63-A-700 / C10D in the Model number block. Rolls-Royce (formerly Allison) never manufactured a C10, C10B or C10D engine. There was never a serial number assignment for a C10, C10B or C10D. You can tell the lineage of the engine by its serial number. An engine with a CAE pre-fix to the 6 numerals is a commercial engine. An engine with an AE pre-fix is military. (Example: CAE 270235 is a commercial C20B / AE401979 is a T63-A-5A)

CSL 1209 states to maintain and operate military engines to the closest commercial equivalent. Since there were no C10 model engines produced from the factory and no publications for them, the C18 is the closest commercial equivalent.

Question: Is there an RRC approved way to convert a model 250-C10D into a 250-C18C?

Response: Although CEB 1225 allows any like Series engine to be reworked and re-identified to a different model within the same series, since there is no C10D, it cannot be converted to a C18. What an operator / owner of a T63 Series engine can do, is operate and maintain the engine per CSL 1209. This would include tracking cycles and hors as applicable and other times to meet the TBO's list in the OMM's.

Regards

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