TELEDYNE CONTINENTAL ® AIRCRAFT ENGINE

SERVICE BULLETIN

Contains Important Information Pertaining to Your Aircraft Engine. Compliance Will Enhance Safety Category 3 SB07-8A Supersedes SB07-8 Technical Portions FAA Approved

SUBJECT: RECOMMENDED MINIMUM CRUISE RPM LIMITS

PURPOSE: To inform operators of the possible long term effects of low engine RPM in cruise conditions. To recommend limitation of minimum engine RPM in cruise.

COMPLIANCE: .Upon issuance of this bulletin

MODELS AFFECTED: O-470-G; IO-470-N; IO-520-BB, CB, MB, P; IO-550-A, B, C, D, E, F, G, L, M, N, P, R; IOF-550-B, C, D, E, F, G, L, N, P, R; TSIO-520-AE, BB, BE, CE, DB, EB, JB, KB, LB, NB, UB, VB, WB; LTSIO-520AE; TSIO-550-A, B, C, E; TSIOF-550-C, E; TSIOL-550-A, B, C

Revision A: To clarify limitations for cruise RPM and add naturally aspirated engines .

Teledyne Continental Motors (TCM) has examined recent occurrences of crankshaft counterweight release and consequent engine stoppage with four high time IO and TSIO-520 engine models. Initial investigation and service history lead us to believe that these occurrences are associated with engine operation at sustained cruise engine speeds of less than 2300 RPM. While power settings of less than 2300 RPM are within the recommended cruise range allowed by TCM's model Specifications, TCM believes that the population of aircraft (equipped with the affected engine models) that operate using the aforementioned low RPM for extended cruise operation is limited. TCM will continue to evaluate the root cause of the counterweight release including any connection with power settings. TCM is not aware of any other confirmed occurrences of this type.

Effective immediately, TCM strongly recommends the following limitation be observed on all the models affected above:

Engine cruise RPM settings should be no lower than 2300 RPM.

NOTE ... This limitation applies only to *cruise operation* and is not meant to supersede the aircraft manufacturers' recommendations for other operational modes such as emergency or holding procedures.

ISSUED			REVISED			TELEDYNS	PAGE NO	REVISION
мо	DAY	YEAR	мо	DAY	YEAR	CONTINENTAL MOTORS	1 of 2	Α
11	02	2007	07	16	2009	A Teledyne Technologies Company P.O. BOX 90 MOBILE ALABAMA 36601 • 251-438-3411	SB07-8	

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Any engine listed in the models affected that has been consistently operated outside the recommended limitation in this bulletin should contact TCM Technical Customer Service at 1-888-826-5465 Option 1 or 1-251-438-3411 x8299 for further information and instructions.

Upon contacting TCM Technical Customer Service, owner/operators must be prepared to provide the following information:

- Aircraft make and model.
- Aircraft registration number.
- Engine model(s).
- Engine serial number(s).
- Total engine hours since major overhaul or factory new/rebuilt.
- Aircraft cruise operational profile.
 - Engine RPM
 - Engine manifold pressure-Hg"
 - Fuel flow-PPH or GPH
 - Average cruise conditions-duration, altitude

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мо	DAY	YEAR	мо	DAY	YEAR	CONTINENTAL MOTORS	2 of 2	Α
11	02	2007	07	16	2009	P.O. BOX 90 MOBLE ALABAMA 36601 • 251-438-3411	SB07-8	