

TELEDYNE CONTINENTAL® AIRCRAFT ENGINE CRITICAL SERVICE BULLETIN

Category 2
CSB09-11

Supersedes SB07-8, 8A
Technical Portions FAA
Approved

COMPLIANCE NECESSARY TO MAINTAIN SAFETY

SUBJECT: MINIMUM CRUISE RPM LIMITS

PURPOSE: To inform operators of the possible long term effects of low engine RPM in cruise conditions. To establish 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, 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, K; TSIOF-550- J;
TSIOL-550-A, B, C


Teledyne Continental Motors (TCM) has examined recent occurrences of crankshaft counterweight release and subsequent engine stoppage in two high time IO-520 and two high time TSIO-520 engine models. Investigation and reported service history lead us to believe that these occurrences are associated with engine operation at sustained cruise engine RPM of less than 2300 RPM. Power settings of less than 2300 RPM have been within the recommended cruise range allowed by TCM's Model Specifications. It is TCM's belief that the population of aircraft equipped with the affected engine models that operate using an RPM less than 2300 RPM for extended cruise operation is limited. TCM will continue to evaluate these reported counterweight releases in an attempt to establish a root cause, including any possible connection with power settings. TCM has not been made aware of any additional confirmed occurrences of this type beyond those mentioned above.

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.

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

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Upon initial contact with 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
 - Average cycle time if aircraft is used in scheduled service

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