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AIRWORTHINESS

MAINTENANCE

**PRESERVATION OF PISTON ENGINES INSTALLED IN AIRCRAFT WITH A MAXIMUM CERTIFICATED
TAKE-OFF MASS BELOW 5 700 KG**

1. The engines of aircraft which are flown only occasionally may not achieve normal service life as a result of the occurrence of corrosion which takes place readily when moisture from the atmosphere and products of combustion combine to attack cylinder walls and bearing surfaces during periods of engine inactivity.
2. Experience has shown that, in regions of high humidity, active corrosion may be found on the cylinder walls and other parts of new engines which have been inoperative for periods as brief as two days. On the other hand, engines which have accumulated 50 or more hours of service tend to acquire a protective coating of resin on the cylinder walls and such engines can remain inactive for several weeks before corrosion becomes evident.
3. It follows therefore that the engines of aircraft based in humid regions and flown at fortnightly intervals have a need for more frequent preservation measures than those based in a more arid environment and flown once a week. The accelerating effect of a salt-laden atmosphere on the corrosive process is also well known.
4. Maintenance personnel should take heed of the foregoing when considering the service life of an engine. It does not only apply prior to factory recommended TBO and must therefore be carefully monitored throughout the service life of the engine, and especially when TBO extensions are granted in terms of GEN 1: Para 13.6.2.
5. Textron Lycoming Service Instruction No 1009 AJ inter alia requires that Lycoming engines be overhauled at 12 year intervals. This SI is dated July 1, 1992 and makes special reference to engine deterioration due to corrosion.
6. Provided an engine has been protected against the elements of corrosion as prescribed by the manufacture of the engine, the Executive Director has agreed to waive the TBO restriction imposed by SI 1009 AJ where applicable.
7. Owners of aircraft and maintenance personnel are urged to comply with the preservation requirements by engine manufacturer's as outlined in maintenance manuals, SL's and/or SB's.