TISKAŘSKÁ 8, 100 38 PRAHA 10, CZECH REPUBLIC

INFORMATION BULLETIN No.: LOM-IB-04b/2009

Refers to : The M132, M332, M137 and M 337 engines of all types and versions, especially the M 337AK installed in Zlin Z-42, Z-43 and Z-142 aircraft, their operation and operation shortly after installation into the aircraft airframe.

Reason : Based on results during investigation of the reasons for damage of piston groups of several engines in operation, which occurred recently and were solved within the complaint procedure during the warranty period or also closely after its expiry, and at which the investigation determined overheating of engine as a main reason, we notify the user, that exceeding the specified operating temperatures together with their rapid changes, which occur during non-careful servicing the engine may cause a damage of the engine in a relatively short time, this especially in the first hours of its operation, when it is the most sensitive to such a damage.
To limit a possibility of occurrence of such a damage, in operation it is necessary to keep the following precautions, which are based on experience from a long-term operation of our engines in various climatic conditions. These principles are specified in the Manual for technical description and servicing of the engine, possibly they are described here in a detailed way. Following these principles is a basis for a long-term operational reliability and a service life of engines.

Actions: During engine operation it is necessary to:

- Monitor and keep on the ground as well as in flight the specified temperature limit values of cylinder heads and of oil. If there is a danger of exceeding or a great reduction in temperature of cylinder heads then to modify, if it is feasible, the flight profile, e.g. to interrupt the steep climb or descent by a short horizontal flight.
- Use the take-off power for a period of 5 minutes at maximum, this only on condition the temperature of cylinder heads and of oil will not exceed the maximum operational values.
- After cold starting to heat the engine slowly, proportionally to surrounding temperature to prolong the time of its preheating before transferring to a higher power. To follow instructions for engine starting itself and its pre-heating. Similarly, it is valid, that at shutting down the engine it is necessary to cool it slowly to a specified temperature before stopping it.
- At engine operation to keep the specified position of fuel correction depending on flight altitude according to the table 5-1 shown in the Manual for technical description and servicing of the engine. At the same time, it is necessary not to use the correction in vain for a long time at starting and preheating or vice versa at cooling the engine.
- Not to change in any case the factory setting of engine consumption and without serious reasons not to change either the ignition advance on ignition magnets.
- In regular intervals to check for a correct function of temperature indicators or upon suspicion of incorrect function.

We recommend the new engine or engine after overhaul in the first 10 to 15 hours of operation:

- to operate carefully, i.e. not to use it for aerobatics or air towing, to use the maximum take-off and maximum continuous power as few as possible, for the shortest necessary period only.
- not to use it in training for first independent flights of students being trained, the engine should be operated by an experienced pilot or instructor.

►To warn the pilots and ground personnel about installation of a new engine or engine

after overhaul in the airframe we recommend for a period of first 10 to 15 operation hours to position on the instrument panel on a good visible place the label or sticker saying „NEW ENGINE".

Also note, that at installation of engine into the airframe it is necessary to adjust the cut-outs in the cooling trap to the exhaust tubing to have a play around the tubing as small as possible, so that there do not occur losses in volume and overpressure of the cooling air.

Validity : On the day of approval.

In Prague, date : 12. 12. 2009

Approved on basis of DOA authorisation No. EASA.21J.306.

Approved by:

Ing. Petr Prokop, MBA
Head of DOA Organisation