

For all owners of active Hirth 2 stroke-engined LAA aircraft wishing to operate on unleaded Mogas fuel

Anticipating the withdrawal from sale of four-star Mogas as of 1st January 2000, the CAA have issued Airworthiness Notices 98B and 98C, now CAP 747, Section 2, Part 4, General Concessions 4 & 5, which include exemptions from ANO Article 101 to allow the use of unleaded Mogas to EN (BS) 228 in certain microlights (GC 4) and single engine aeroplanes and gyroplanes (GC 5), subject to various safety measures to limit the degree of risk and subject to each aircraft/engine combination having been approved for the purpose by the CAA.

CAA have agreed that in the case of aircraft operated on Permits to Fly issued on LAA recommendation, LAA as a CAA approved organisation may approve individual aircraft/engine combinations for use of unleaded Mogas under CAP 747.

LAA aircraft fitted with a Hirth F30 engine have been identified as an aircraft/engine combination eligible for approval for use with unleaded Mogas.

Procedure

Approval can be obtained by the simple process of having your LAA inspector check your aircraft against the checklist LAA/IC-ULM-HIRTH 2 STROKE, and carry out an engine ground run using unleaded fuel. It may be that the inspection will show up the need for changes to the aircraft fuel system to bring it up to scratch, in which case you must have the work certified in the usual way. Any modifications to the design of the aircraft, engine or systems must be submitted to LAA Engineering for approval. When your inspector is satisfied that the aircraft complies in every respect with the requirements then he must:

- fit a mandatory cockpit placard (available for download or from the LAA shop)
- fit a mandatory placard adjacent to each fuel filler (available as above)
- sign the checklist at its base and staple it into the airframe logbook along with this information sheet.
- make an entry in your aircraft and engine logbooks (see below)
- attach 'Operating Information – Unleaded Mogas' to your aircraft's Flight Manual, Pilot's Notes or Airframe Logbook (see below).

Logbook entry

'With effect from (date) this (aircraft / engine) may be run on unleaded petrol to BS EN 228 95 RON in accordance with Cap 747, Section 2, Part 4, General Concession 4 (if it is a microlight) or GC 5 (if it is a Group A aeroplane or gyroplane).'

The above wording has been agreed by the CAA to meet the intent of the Airworthiness Notices.

Operating Information

Attach the document 'Operating Information – Unleaded Mogas' to the aircraft's Pilot's Notes, Flight Manual, or, in the absence of these, to the airframe logbook, and operate the aircraft in accordance with the additional operating limitations and other general guidance provided.

We occasionally hear complaints from the environmental lobby about the continued use of leaded fuel by piston engined aircraft, despite our protests that the majority of our

engines do not need nor like lead in their fuel, and the high octane, high lead 100LL is only required by a tiny minority. In the long term we expect to see a new unleaded aviation fuel becoming available at airfields to replace 100LL, meanwhile EN228 95 RON Mogas can at least provide the owners of LAA Hirth 2 stroke-powered aircraft with the opportunity to 'fly green' if they should wish, as well as providing owners remote from airfield fuel supplies the freedom to operate with readily-available fuel from the local garage forecourt.