

Service Information Letter

RotorSport UK Ltd	
Poplar Farm, Prolley Moor, Wentnor, Bishops Castle, Shropshire, UK, SY9 5EJ	
SILNo.: 010 issue 1, dated 14.05.12	CCAR No.: CCAR-014 and -032
Aircraft type & model (applicability) RotorSport UK MT-03 and MTOsport RotoSport UK Calidus	Aircraft serial Nos. effected RSUK/MT-03/all, RSUK/MTOS/all RSUK/CLDS/all
The purpose of this document is to communicate information to pilot owners of RotorSport aircraft that may be of benefit. If there is any clarification required of the content of the letter, contact RSUK on 44(0)1588 650769, or email info@rotorsport.org .	
<u>Subject</u> “Winter-grade Mogas” and “Unleaded Avgas”	Issue date: 14.05.12
<u>Safety effect</u> Improved	
<u>Weight and CG effect</u> No effect	
<p>Background: Experience with Calidus aircraft, and to a much lesser extent with MTOsport, has identified that an adverse combination of fuel-type and operating conditions may result in poor engine performance. Whilst this SIL is issued for RotorSport aircraft, the information may be applicable to other types using Mogas</p> <p>Discussion: RotorSport gyroplanes are approved for, and are generally used with Mogas, as obtained from a filling station/garage forecourt. It is known that the various fuel companies change the blend of this fuel during the winter period to improve the cold-weather performance of automotive engines (effectively by reducing the boiling point). If the weather is consistently cold this winter blend has generally no effect when used in aircraft. However, if the weather suddenly improves and the air temperature rises, the reduced boiling point can allow vapour-locking in the fuel system, which in turn can cause poor hot-starting, intermittent running or sudden power-loss. The problem is exacerbated by extended ground-running or parking in bright sunlight, both of which result in heat-soak in and around the engine.</p> <p>Recommendation:</p> <ol style="list-style-type: none">1) If the fuel temperature is likely to be above 20 degC, or operation above 6,000ft is envisaged, then use Avgas100LL in place of Mogas (as required by the RSUK Pilots Handbooks (and the CAA) and noting that there may be a more frequent service requirement for the engine)2) Use “Unleaded Aviation Gasoline” Avgas UL91, which is a new type of unleaded aviation fuel, essentially the same as Avgas 100LL but without the addition of tetraethyl lead. This fuel is approved for use in Rotax engines and is already available at a number of airfields around the UK (see Appendix 1).3) Before flight always ensure that the aircraft will run to, and maintain, maximum rpm <p>References: CAA publication “Safety Sense Leaflet No 4 – Use of Mogas” EASA Safety Information Bulletin SIB No 2011-01R1 LAA Airworthiness Approval Note LAA-999-413 supplement 5 Rotax Service Information letters SI-912-016 R4 and SI-914-019 R4</p> <p>These documents are appended at their status at the point of the SIL release.</p>	
Effect on Pilots Handbook or Maintenance Manual? The information outlined above will be incorporated in the next issue of each manual	

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Appendix 1 - Availability of “Unleaded Aviation Gasoline” Avgas UL91

RSUK understand that airfields currently stocking UL91 are:

- Barton
- Compton Abbas
- Dunkeswell
- Halfpenny Green
- Henstridge
- North Weald
- Rochester
- Turweston
- Thrupton
- Wellesbourne
- Wolverhampton

and that the following airfields are preparing for distribution:

- Popham
- Gloucester – Staverton
- Sleap

*The technical content of this document is approved under the authority of the UK CAA Design Organisation
Approval Ref: **DAI/9917/06***

SIL authorised by: (name, signature, and date of signature)

This document has been issued according to an approved computer-generated signature procedure.

Quality Conformance Manager	Engineering Manager	Chief Test Pilot (if flight performance or safety effect)	Structures (where required) Not required	Head of Airworthiness
Document completion date:	Issued to:	When	Issuer name	Signature
	Internal			
	CAA			
	Owners			