



5th April 2011

SERVICE BULLETIN SB/EUR/006 ISSUE 1  
EV-97 teamEUROSTAR UK AIRCRAFT  
CHANGE OF CYLINDER HEAD TEMPERATURE LIMIT

**Classification - Recommended**

Aircraft Affected

All factory built EV-97 teamEurostar aircraft.

Background

Cosmik recommend the use of a conventional Ethylene Glycol antifreeze mixed with 50% water as engine coolant. See Rotax Service Instruction SI-912-016 (latest revision) for further information and some recommendations.

When the Pilots Operating Handbook for the EV-97 teamEurostar was originally written, Rotax specified a maximum Cylinder Head Temperature (CHT) of 150°C. Since then they have revised their recommendation and now specify a maximum coolant temperature of 120 °C if 50/50 water/antifreeze mixture is used. The factory built Eurostar is fitted with a CHT gauge, but no coolant temperature gauge. There is, however, a relationship between coolant temperature and CHT.

Cosmik inadvertently did not revise the figures in their Operators Manual or on the placards, but fortunately the cooling system on the Eurostar is extremely efficient and tests have shown that a coolant temperature of 120 °C has never been reached even in severe operation.

The CHT is typically somewhat higher than the coolant temperature.

On this basis, we have decided to reduce the maximum CHT to 120 °C, which will mean the coolant temperature will always be below its boiling point, and a separate coolant temperature gauge need not be fitted.

For current recommendations from Rotax, see the latest issue of the Engine Operators Manual and Installation Manual, which are available for free download from the Rotax website [www.rotax-aircraft-engines.com](http://www.rotax-aircraft-engines.com) Aircraft owners are advised to regularly check for additions and changes to Rotax publications.

Action Required

Owners are requested to do the following

1) On Page 10 of the Pilots Operating Handbook at Cylinder Head Temperature Maximum, add (120°C\*) next to 150°C and add (248 °F\*) next to 302 °F.

Below the table on Page 10 add the following

\*If 50/50 ethylene glycol / water coolant is used and if Service bulletin SB/EUR/006 Issue 1 is complied with.

Amend Page 11 of the POH to indicate CHT Caution Range 100-120 °C (212 - 248 °F) instead of 100-150 °C and Maximum Range to 120 °C (248 °F) instead 150 °C. Amend Engine Limitations placard sample on Page 14 to read Max CHT 120 °C instead of 150 °C.

2) If the aircraft is fitted with the optional KIEV propeller, amend Page 3 of the Pilots Operating Handbook Supplement (POH/EUR/01 Supplement 01) to show maximum CHT of 120 °C (248 °F) instead of 150 °C (302 °F). Amend the Engine Limitations sample placard on Page 4 to read Max CHT of 120 °C instead of 150 °C.

3) On the aircraft instrument panel revise the Engine Limitations placard by covering the CHT limit of 150 °C with a small sticker showing the new limit of 120 °C (a self adhesive 120 °C sticker is included with this Bulletin). On the CHT gauge peel off the red line indicating 150 °C and replace it with a red line at 120 °C (self adhesive red line included with this Bulletin).

4) Make an entry in the aircraft log book stating that Service bulletin SB/EUR/006 Issue 1 has been complied with.

5) Keep a copy of this Bulletin in the aircraft records.



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