

RotorSport UK Ltd Service Bulletin

Title: Rotax CHT_CT gauge placard		
SB No.: 094 Iss1	Related documents MC No: MC-314 CCAR No.: none	Compliance Category: OPTIONAL or RECOMMENDED or MANDATORY
Applicability		
Aircraft type & model: All those fitted with Rotax new-design cylinder head but having CHT gauge display	Aircraft serial Nos. affected: See list below	
This form is the response from RotorSport UK Ltd either against a problem found in the product in service requiring a containment or rectification action, or as service information for aircraft modification incorporation. For help, contact RotorSport on 44(0)1588 650769, or email info@rotorsport.org.		
<u>Reason and overview of the Service Bulletin (cause of problem if known)</u>		
<p>The latest Rotax engine cylinder head design places the temperature sensor in the water jacket, so the instrument display is considered to be coolant temperature (CT) with maximum allowed value 120degC and not Cylinder Head Temperature (CHT) which had maximum value 135degC.</p> <p>Until bespoke CT gauges are available a placard kit has been made available by RSUK to convert existing CHT gauges to CT display and the placards may be fitted to affected aircraft under this RSUK Service Bulletin SB-094.</p> <p>RSUK records show that the following aircraft require embodiment of this Service Bulletin (unless the engine has been replaced or fitted with old-design cylinder heads whilst in service – see below for verification of type)</p> <p>RSUK/MTOS/050 G-CICV RSUK/MTOS/051 G-CIDF RSUK/MTOS/053 G-CIEB RSUK/MTOS/054 G-CIEJ RSUK/MTOS/055 G-CIFT</p> <p>RSUKCALS/023 G-CICM RSUK/CALS/024 G-CIKG RSUK/CALS/025 G-CIPP RSUK/CALS/026 G-PCPC</p> <p>RSUK/CVLN/008 G-MRJC</p> <p>Note that as no MPD has been issued by UK CAA this RSUK Service Bulletin SB-094 is classified as "Recommended". However, the related Rotax service bulletins are classified as "Mandatory" and must be observed in order to maintain the Rotax warranty.</p>		
<u>Approval</u>		
The technical content of this document is approved under the authority of the UK CAA Design Organisation Approval Ref: DAI/9917/06		

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<u>Manpower estimates</u> Accomplishment of this Service Bulletin requires the following personnel (i) A3-7 (or equivalent) Authorised Engineer (No duplicate inspection required) and estimated man-hours to complete the task as a standalone item are; 0.1hour		
<u>Tooling required</u> None		
<u>Weight and Balance Effects</u> None		
<u>Manuals affected</u> Cavalon Pro POH RSUK0334 Iss1 and AMM RSUK0335 Iss1 Cavalon POH RSUK0287 Iss1 and AMM RSUK0288 Iss3 Calidus POH RSUK0060 Iss 5.1 and AMM RSUK0061 Iss6 MTOsport POH RSUK0043 Iss 6 and AMM RSUK0044 Iss6 MT-03 POH RSUK0011 Iss 10 and AMM RSUK0012 Iss 8 (only if new engine/heads fitted in aftermarket)		
<u>Previous Modifications that affect the SB</u> There are no previous RSUK modifications that affect this SB-094		
<u>Accomplishment instructions (Action required to implement this bulletin):</u> Effective date of SB is 18.05.15. There is no relevant MPD but other reference documents are noted below. 1) Reference should be made to Auto-Gyro publication AG-MI-2015-02-C-EN and must be made to Rotax publications: Service Bulletin SB-912-066UL Service Bulletin SB-914-047UL Temporary Revision TR-IM 912-001 Temporary Revision TR-IM 914-001 2) In addition, there is a Rotax requirement that the serial number plate of affected engines carries an -01 suffix and if this is not already present then it must be permanently applied. This requirement is defined in Rotax documents: Service Bulletin SB-912-068UL Service Bulletin SB-914-049UL However, due to the position of the serial number plate on the engine this action requires that		

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the engine be removed from the aircraft, and is considered an unacceptable burden. As part of Service Bulletin SB-094 or Mod MC-314 implementation the engine logbook is therefore amended to state *'The engine serial number is modified to have -01 appended as required by Rotax SB.....The serial number plate has not been changed due to inaccessibility, and is to be changed at the next suitable opportunity'*.

Embodiment of Placard

1. Verify that the engine fitted requires the gauge modification (see photos below)
2. Clean the glass of the CHT gauge using Ambersil LO30 solvent on a soft cloth
3. Using a scalpel blade lift the red line from the placard sheet. Affix the red line directly over the 120degC marker
4. Affix the 120degC icon over the pointer's pivot to the right of the gauge
5. Using finger pressure press down on the adhesive pieces to ensure no air-bubbles beneath.

Illustrations

Identification of engine type:

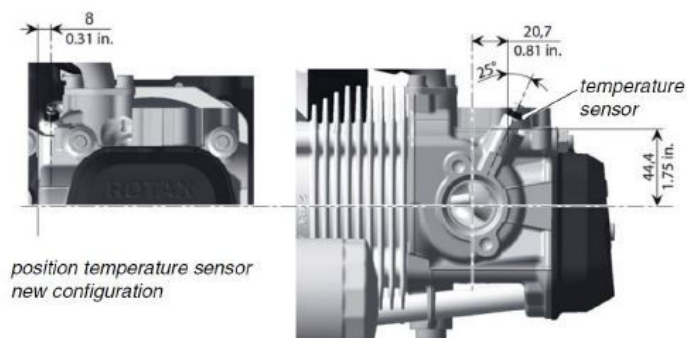


Fig. 1 - New generation cylinder head (measurement of CT)

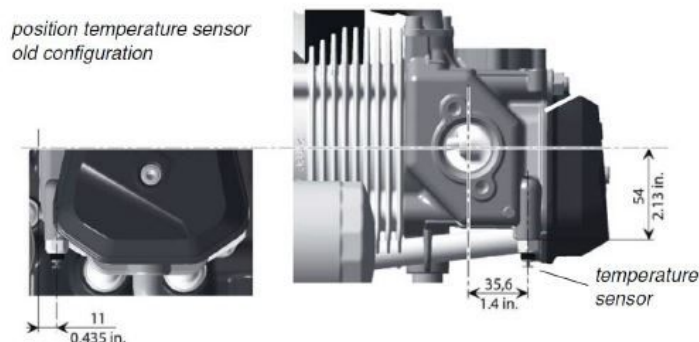


Fig. 2 - Old cylinder head (measurement of CHT)

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Unmodified and modified gauges:



Material information (Parts required to be made to implement this service bulletin):

No parts manufactured during embodiment

List of components (with purchasable part nos)

M.EL01.74, or C.EL01.45, or V.EL202.24 CT gauge placard kit
 RSD4655 Ambersil LO30 solvent cleaner

Interchangeability

Not applicable

Parts disposition

- a) Disposal requirements (whether discard or re-use) – not applicable
- b) Environmental hazards of parts containing hazardous materials - none.
- c) Scrap requirements (e.g. mutilate scrapped items beyond use) – not applicable

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<u>Documentation (Service Bulletin Completion action)</u>		
<p>a) Entries within the aircraft logbooks - Authorised Person to certify that the work is completed by writing '<i>SB-094 Rotax CHT_CT gauge placard.incorporated</i>' in the aircraft logbook white pages, and record the action in the pink pages entitled 'Aircraft Modifications'. Both entries must be signed by the Authorised Person together with their Authorisation number.</p> <p>b) Entries within the engine logbooks - Authorised Person to certify that the work is completed by writing '<i>The engine serial number is modified to have -01 appended as required by Rotax SB.....The serial number plate has not been changed due to inaccessibility, and is to be changed at the next suitable opportunity</i>' and record the action in the pink pages entitled 'One time requirements'. Both entries must be signed by the Authorised Person together with their Authorisation number.</p> <p>c) Completion of the SB worksheet attached, This must contain a PMR statement, and a final check item that no tools or equipment have been left within the aircraft)</p> <p>d) A Permit change application document is not required</p> <p>e) PMR or Permit Flight Release form requirements are met by (c) above.</p>		

Document approval signatures			
Engineering Manager	CVE (as required)	Chief Test Pilot (if flight performance or safety effect)	Head of Airworthiness

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Service Bulletin implementation Worksheet

Aircraft type:	Serial no:	G-
Worksheet completed by:		Document ref: SB-094 Iss1
Worksheet cross-checked by (if applicable):		
Purpose – record service bulletin implementation actions taken to inspect aircraft and return to service.		
Maintenance manual referred-to and issue level/date:	Extract from list above	

Note: attach SB sheets to this document

Task	Notes	Eng'r check/date	Inspector check/date
Verify placard fitment is required			
Affix red line at 120degC point			
Fit 120degC Icon			
Complete aircraft and engine logbook entries			

Customer acceptance:

Name: Signature/date:	Aircraft hobbs meter reading: Confirm logbooks annotated:
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Permit Maintenance Release:
'The work recorded above has been completed to my satisfaction and in that respect the aircraft is considered fit for flight. I confirm that no tools, equipment or debris have been left in the aircraft'

Engineer signature and date: CAA (or equivalent) Authorisation code :	Location where work completed
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