SERVICE BULLETIN

Service Bulletin No.: DA20-72-04 Rev 0 **Date Issued:** 22 January 2015

Title: Change of measurement from CHT to Coolant Temperature

1. ATA Code: 7200

2. Effectivity: DA20-A1 aircraft equipped with ROTAX 912 series engines with the following criteria:

Engine Type	Serial Number
912A	from S/N 4 410 982 inclusive
912F	from S/N 4 413 020 inclusive
912S	from S/N 4 924 544 inclusive

Engine Type	Replacement Cylinder Head Part Number for position 3
912A or 912F	413235 or 413236
912S	413185

3. General: ROTAX has introduced a new design of the cylinder heads for the 912 series engines which modifies the location of the temperature sensor. The temperature sensor is now immersed in the coolant rather than being in contact with the cylinder head. ROTAX requires a change of measurement from cylinder head temperature to coolant temperature.

With the introduction of these new cylinders ROTAX has changed the installation requirements and has revised the selection of suitable operating fluids.

This service bulletin provides the information necessary to make changes with the DA20-A1 aircraft when installing new engine or new cylinders that meet the above criteria.

4. Compliance: Mandatory if a new engine or a new cylinder #3 has been installed that meets the criteria per Section 2, above. Otherwise, this service bulletin is not applicable.

5. Approval: Engineering data referenced or contained in this service bulletin is approved as part of the type design.

6. Labor: Approximately 1 hour will be required to accomplish this service bulletin. This estimate does not include the time for engine change or cylinder change, only the remarking of the instrument.

This estimate is for direct labour performed by a technician and it does not include setup, planning, familiarization, cure time, part fabrication or tool acquisition.

7. Material: N/A

8. Special Tools: N/A.

9. References:

- DA20-A1 Aircraft Maintenance Manual, Document Number DA201.
- DA20-A1 Airplane Flight Manual, Doc. Number DA202 (or DA202-100).
- Rotax Service Bulletin SB-912-066 *Change of measurement method from cylinder head temperature to coolant temperature for Rotax Engine Type 912 and 914 (Series)*.
- Rotax Service Instruction SI-912-020 R8 *Running modifications*.
- Rotax Service Instruction SI-912-016 R7 *Selection of suitable operating fluids*.
- Maintenance Manual for Rotax Engine Type 912.
- Diamond service bulletin DA20-72-02 Evans NPG+ Coolant
- Diamond service bulletin DA20-72-03L Use of 50/50 Glycol Coolant types

10. Accomplishment Instructions:

10.1 Install cylinder head temperature probe (p/n 965531) onto cylinder #3 in accordance with Rotax service instruction SI-912-020 Section 72-00-00, latest approved revision.

a. If necessary, secure excess slack of temperature wire harness to itself using cable tie p/n MS3367-5-9, or equivalent.

10.2 Fill engine with suitable coolant in accordance with Rotax Service Instruction SI-912-016, latest approved revision. If adding Evans NPG+ coolant, then refer to service bulletin DA20-72-02.

10.3 If service bulletin DA20-72-03L has previously been performed, then remove associated MAX CHT placard, and optionally remove associated temperature indication light on the instrument panel.

10.4 Label the cylinder head temperature (CHT) indicator with “COOLANT MAX 248°F” using a permanent label directly on the face of the indicator. Reference Figure 1.

10.5 Mark the Coolant Temperature indicator as follows:

a. Cut out the full scale template (Figure 1).

b. Place template on the face of the Coolant Temperature indicator to define a radial line at 248°F (120°C) and, an arc from 248°F (120°C) to 302°F (150 °C).

c. Mask and carefully etch surface.

d. Wipe clean.

e. Apply Testors acrylic red paint or equivalent.

f. Allow to dry.

g. Inspect and ensure area is properly marked from 248°F (120°C).

NOTE: Care must be taken to ensure that the indicator face is not excessively scratched or damaged.

10.6 Label the “CHT/OIL PRESS.” circuit breaker with “COOLANT TEMP./OIL PRESS.”.

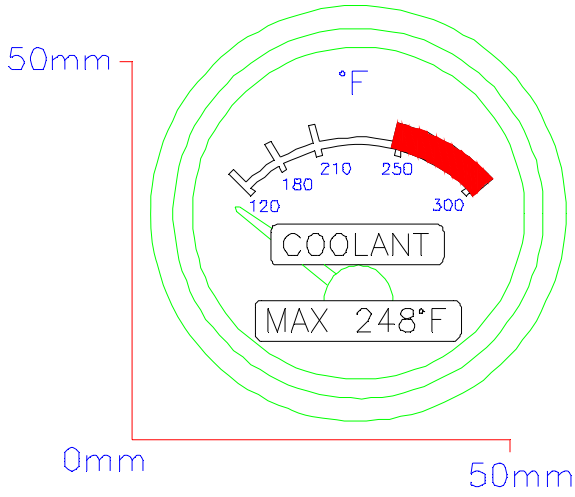

Figure 1: Coolant Temperature Indicator

10.7 Insert AFM Temporary Revision *DA202 TR 15-01*, or *DA202-100 TR 15-01* in respective AFM.

10.8 Make a log book entry that this Service Bulletin has been incorporated.

11. Weight and Balance: Weight and balance is not significantly affected by this Service Bulletin.

12. Availability: Contact Diamond Aircraft Industries Inc.

13. Electrical Load: No impact to the electrical load.

14. Credit: None.

To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this service bulletin if it is not incorporated.
If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries Inc. at the address below.

Diamond Aircraft Industries Inc. 1560 Crumlin Sideroad, London, Ontario, Canada N5V 1S2

Customer Support: Phone: (519) 457-4041 Fax: (519) 457-4045 E-mail: custsupp@diamondair.com
Technical Publications: Phone: (519) 457-4030 Ext. 3173 E-mail: techpubs@diamondair.com