



RECREATIONAL AVIATION AUSTRALIA INC

06 September 2010

## RECREATIONAL AIRCRAFT AIRWORTHINESS NOTICE

AIRWORTHINESS NOTICE IDENTIFICATION NUMBER: **RA-Aus AN 270810-1**

**ENSURE ALL ENGINE COOLING SYSTEM HOSES ARE FITTED  
CORRECTLY AND THE CLAMPS ARE TIGHT**

**To:** All owners and operators of aircraft fitted with fluid type engine cooling systems.

**Background:** Several owners have reported overheating problems with fluid cooled engines which has been caused by loose or poorly fitted hoses and clamps.

**Discussion:** Fluid cooling system hoses should be always be checked on a regular basis (during the daily inspection is recommended). Rubber hoses can be fitted onto flanged tubes in such a manner that they are not over the flange, in addition, most hose clamps fitted to hoses which are not over the flange may look as though they are tight until they are subjected to vibration and heating and cooling.

Rubber hoses fitted over flanged fittings should always be pushed on over the flange as far as they can on the fitting. The clamp should then be placed with at least  $\frac{1}{2}$  the width of the clamp as rubber between the clamp and the end of the hose. When the hose is new, the seal is between the flange on the fitting and the inner rubber wall of the hose, and the clamp is then used to hold it in place or lock it. The clamp should be tight on the hose; in fact it should **compress** the hose but not enough to **distort** the hose.

Shortly after fitting, during normal operation, all screw type hose clamps will become loose due to vibration and heating and cooling of the hose.

**Action Required:**

**BEFORE NEXT FLIGHT:** Check all engine cooling hoses to ensure they are fitted correctly and the clamps are tight. Report all defects to RA-Aus as soon as possible.

**At Each Daily Inspection:** Inspect all engine hoses for leaks, damage and security, ensuring the hoses are fitted correctly and the clamps are tight, in accordance with the engine manufacturer's instructions.

**Recommended Further Action:** No further action is required.

**Reports and Recording:** Record the initial inspection citing **RA-Aus AN 270810-1**

Technical Manager

Defect Reporting is one of the primary ways we have in ensuring continued safety in our operations.