



RECREATIONAL AVIATION AUSTRALIA INC

Date: 30 July 2010

**ULTRALIGHT AIRCRAFT AIRWORTHINESS NOTICE**

**AIRWORTHINESS NOTICE IDENTIFICATION NUMBER: AN300710-3**

**Carburettor Bowl Check on ROTAX 914 Engines**

**To:** All owners and operators of Aircraft, fitted with a **ROTAX 914 Engine**

**Background:** An owner has reported an inability to obtain high power settings on a ROTAX 914 engine. This problem was found to be air entering the carburettor through a loose carburettor bowl. This led to a possible rich mixture at high power settings, causing rough running and a decrease in power, and possible plug fouling.

**Discussion:** Ever though the carburettor fuel bowl on the ROTAX 914 is locked, engine vibration may cause it to work loose. All float type carburettors require the system to be sealed, with the exception of the calibrated bowl vent, which will maintain a constant head of pressure on the top of the fuel in the bowl. If normal atmospheric pressure is allowed in the bowl, then the pressure on the fuel will be variable, which means that the fuel to the engine will also be variable. At low altitudes or high pressure areas, the mixture may be rich, while at higher altitudes or low pressure areas the mixture will be lean.

**Action Required:**

**BEFORE NEXT FLIGHT:** Remove the carburettor fuel bowl locking and check if the bowl and other bolts etc. have become loose. Re-torque all of the bolts to the manufacturers recommended settings and relock. Perform a functional and leak check during an engine ground run. Report all loose, damaged or leaking carburettors to RA-Aus by submitting a defect notice.

**At Each Daily Inspection:** Visually inspect the carburettor bowl for looseness, damage and leaks.

**Recommended Further Action:** This is a continuing airworthiness notice. This check should be performed at every 50 hourly inspections.

**Reports and Recording:** The initial inspection and subsequent inspections are to be recorded in the aircraft log book citing **AN300710-3** and any defects found are to be reported to the RA-Aus Office immediately.

Technical Manager

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