912/914 emergency airworthiness directive

Safety Promotion Unit/Civil Aviation Authority of New Zealand

Emergency Airworthiness Directive - EASA AD 2016-0144 - effective 26 Jul 2016

This AD is applicable to Rotax 912 A1/A2/A3/A4, 912 F2/F3/F4, 912 S2/S3/S4, and 914 F2/F3/F4 engines, all S/N.

This AD is prompted by a quality escape in the manufacturing process of certain floats, P/N 861185, which may cause a partial separation of the float outer skin during engine operation. Separated particles could lead to a restriction of the jets in the carburettor, possibly reducing or blocking the fuel supply to the affected cylinder.

This condition, if not detected and corrected, could lead to in-flight engine shut-down and forced landing, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, BRP-Powertrain published Alert Service Bulletin (ASB) ASB-912-069/ASB-914-051 (single document) providing instructions for identification and replacement of the affected parts.

For the reasons stated above, this AD mandates the identification and replacement of the affected floats with serviceable parts, in accordance with the instructions of the ASB.

You may need to 'refresh' your browser to see the latest version.

What's new on the RAANZ website

The <u>Fit & Proper Person declaration</u> has been modified with the requirement that members advise RAANZ of any change or event that may affect their fit end proper person status. All pilots must file a FPP declaration on entry into the RAANZ system, but further down the track circumstances may change and render that pilot no longer fit or proper.

We considered requiring a full FPP re-declaration at specific intervals or upgrades during the pilot's aviation career, but decided on requiring/trusting the pilot to advise us of any change that may affect their eligibility. Things like significant physical or mental health changes, criminal or traffic safety related convictions, or getting documents pulled by CAA.

Be a responsible pilot, tell RAANZ if there is anything they should know about- it is part of good airmanship.



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Revision: July 24, 2016, at 05:46 PM

What's new

- · Added Xair Hanuman defect report (jul16)
- Revised <u>Fit & Proper Declaration</u> (Jul16)
- Added RecPilot issue 108 (Jul16)
- · New printed exam server (Jun 16)
- Added <u>Incident report: Bird strike</u> (Jun16)
- Added Incident report: aircraft slewed off runway (Jun16)
- Added <u>RecPilot issue 107</u> (Jun16)
- · Updated RAANZ shop and services (May16)
- Added RecPilot issue 106 (May16)
- Added RecPilot issue 105 (Apr16)
- Added RANS S6 rudder cable defect report (Mar16)
- Added <u>RecPilot issue 104</u> (Mar16)
- Added <u>Defect report- glass fuel filter safety wiring</u> (Feb16)
- Added <u>RecPilot issue 103</u> (Feb16)
- Added RecPilot issue 102 (Jan16)

Make sure your contact details are up to date

To keep up to date with any changes or

additions, make it a habit to click on

the 'What's new" link each time you

visit the RANZ website. We will also

put a summary of changes in the

RecPilot each month

Our recent field audit of pilot and aircraft data showed there is an issue with out of date contact information (address, telephone number and particularly **email address**)- people change ISPs and email address guite frequently.

Since email is our main method of contact with members, it is important that we keep up to date. You can help with this-

- Go to the myRAANZ webpage and check/correct your contact details.
- <u>Let RAANZ know</u> of any changes
- Make sure your contact details are on CMV forms sent to RAANZ.

RAANZ AGM 2016

The AGM is due to be held in November. We normally like to spread it around the country so people get a chance to see who is who, find out why things are as they are, suggest improvements, and perhaps -shock, horror- even *put their hands up and get involved*.

Last AGM was at Raglan, so somewhere south would be a good choice this time. Any offers? All we need is an accessible venue for people to fly or drive in. Let us know.

Keep it in the Green

Martin Little/Whitianga Aero Club

My instructor told me that with particular gauges it was only necessary to keep the needle in the green and all would be well.

I don't have a plane but a friend has an Alpi Pioneer with a 6 cylinder Jabiru engine. Of late, Jabiru has been getting a bad rap so it was decided to take a close look the engine condition.



Alpi fitted a two channel cylinder head temperature gauge reading from 60deg to 360deg with sectors coloured green, yellow and red. The green covers 100deg to 180deg, yellow, 180deg to 220deg and red 220deg upwards.

One would assume then, that maintaining the cylinder head temperatures in the green would be safe. Not so. The manufactures state that the maximum continuous head temperature is 180deg (top of the green) and absolute maximum is 200 deg half way into the yellow.

That is a difference of *one division* on this gauge between max cont and abs max. Half of the scale would never be used (or shouldn't be). That gauge was useless! *<Ed- well not entirely useless, just not as useful as an expanded scale covering the operating area>*

Investing in a 6 channel digital gauge revealed more horror. Pick any two cylinders of a six and you will find the others may be vastly different. The cylinder shrouds supplied with the Jabiru may be adequate but when Alpi fitted it inside their cowling, most of the air is directed across the barrels instead of the heads. Much work on the ducting resulted in even cooling of all six heads.

Since the digital gauge had twelve available channels allowing for EGT measurement, six thermocouples were fitted to the exhaust pipes. The EGTs recorded were all higher than manufactures specification. Hmm?

More detective work revealed that Alpi had put an air intake on the top cowl feeding into the filter box and thence to the Bing carburettor. Bing advise against ram air as it weakens the mixture. Weak mixture equals hot cylinders and high EGTs. Feeding the air from within the cowl lowered cylinder head temps and the EGTs.

As a final corollary, the previous owner had noticed the high oil temperature and so fitted an extra oil cooler. (He must have trusted his 2 channel gauge.) Following all the mods the extra cooler was dispensed with and oil temps of 80 were recorded.

Moral of this story? Don't trust anything. Know your gauges. Are they calibrated? Are they measuring what you think they are? Can you read them accurately at a glance? Only then can you colour a segment green.

Defect Report- Xair Hanmuan

Defect Details

Microlight type/model Xair Hanuman MMC

Total Time in Service (hrs) 417 hrs

Defect area | Airframe/Engine/Controls/Flying surfaces/Undercarriage/etc

Issue found during a pre flight. Inboard Port rear brace wire and drag link attachment bolt broken at point of shank and thread. The bolt is a cap screw marked TVS 12.9. It would appear that during initial assembly the nut and washer have been wound up hard against the shank. Bolt has broken leaving inner brace and wires

Describe the Starboard wing subsequently removed and cover stripped for inspection. Bolt and nut defect found to be done up to a similar level of tension with obvious signs of marking

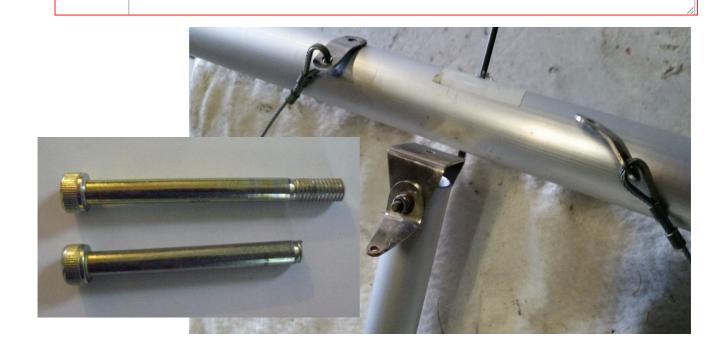
> Aircraft was grounded immediately on finding these problems. An engineer and IA checked the findings and agreed with our observations. Engineer supplied replacement bolts and washers.

airworthiness

Describe the affect on Pictures posted as a separate file.

Caps screw on both wings replaced with a slightly longer version allowing washers to be used as packers and spacers reducing drag wire tension slightly and allowing for the nut to be done up correctly without bottoming out on the shank.

Remedial action taken



Membership changes

Jarrod Heap	Canterbury Recreational Aircraft Club	Novice	Joined
Darran Fitzgerald	South Canterbury Microlight Club	Novice	Joined
Dominic Coe	Hawkes Bay and East Coast Aero Club	Novice	Joined
Trevor Alexander	Fiordland Aero Club	Novice	Joined
Andrew Drain	Canterbury Recreational Aircraft Club	Novice	Joined
Regan Tuck	Wairarapa Ruahine Aero Club	Advanced National	Joined
Philip Hart	Mercury Bay Aero Club	Advanced National	Joined
Warwick Allen	Gyrate Auckland	Novice	Joined
Jeremy Hart	West Coast Microlight Club	Novice	Joined
Carl Black	Parakai Aviation Club	Novice	Joined
Kevin Rotseart		Novice	Joined
Stefan Kriegelstein	Canterbury Recreational Aircraft Club	Novice	Joined
Phillip Scurr	Canterbury Recreational Aircraft Club	Novice	Joined
Harvey Fallon	Wanganui Aero club	Intermediate	Upgrade
Michelle Polglase	Canterbury Recreational Aircraft Club	Novice	exam
Bernadine Tanoa	Mercury Bay Aero Club	Novice	exam
Jordan Wiliams	Mercury Bay Aero Club	Novice	exam
Jeremy Philip	Canterbury Recreational Aircraft Club	Novice	exam
Michael Everard	Gyrate Flying Club	Novice	Joined
Matthew O'Connell	Mercury Bay Aero Club	Novice	Joined
Richard Barley	Gyrate Flying Club	Novice	FRTO
Hamish Janson	Gyrate Flying Club	Novice	FRTO
Ross Brodie	Geraldine Flying Group	Flight Instructor	Upgrade
David Horner	Parakai Aviation Club	Intermediate	Upgrade
Rod Willis	Gyrate Auckland	Intermediate	Upgrade
Christopher Skippen	Nelson Microlight Club	Advanced Local	Upgrade
Lindsay Baird	Southern Recreational Aircraft Club	Advanced Local	Joined
Michael Sheffield	Canterbury Recreational Aircraft Club	Advanced National	Upgrade
John Bolton-Riley	Manawatu Districts Aero Club	Senior Flight Instructor	ATO appointment

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