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MANDATORY ACTION – SAFETY ALERT

DEC 06 2021

Issue Date

DEC 06, 2021

Subject/Purpose

CH 601 and CH 650 series canopy secondary latch installation required.

Affected Models

All low wing (CH 601 and CH 650 series) models with bubble canopies.

Compliance Time

Install before next flight.

Inspection Frequency

Part of the pre-flight inspection and Annual (on-going).

Background

There continue to be reports of CH601, CH601XL and CH650 aircraft canopies opening in flight. The canopy system when closed properly works well. A video was released in 2008 showing the entry and canopy closing. The latches need to be firmly pushed closed before engine is started.

<https://youtu.be/ivf1DIW5vgg>

AMD 601 POH at

http://www.newplane.com/amd_downloads/MASTER_AMD_POH_601_650_Nov-09_at_1320lbs.pdf

In the AMD 601 POH.

Section 6.2 and 6.9 addresses the emergency procedure when a canopy opens in flight.
Section 7 (H) addresses the canopy inspection before flight.

Section L (6) states:

6, Check that your canopy closes and latches properly on both sides. If in doubt, add a secondary latching system as recommended by the Australian CAA. If your canopy does open in flight, keep your hands on the controls, lower your speed to approximately 60 knots, keep flying the aircraft and land as soon as practicable.

WARNING: Do not try to close the canopy in flight: Fly the aircraft!

The PRE-FLIGHT CHECKLIST

<http://zenithair.com/zodiac/xl/data/601XL-PRE-FLIGHT-INSPECTION-Feb-2010.pdf>

Canopy section # 276 to # 284 discusses the latching systems, # 310, check that your canopy closes and latches properly on both sides. If in doubt, add a secondary latching system as recommended by the Australian CAA. If your canopy does open in flight, keep your hands on the controls, lower your speed to approximately 60 knots, keep flying the aircraft and land as soon as practicable.

WARNING: Do not try to close the canopy in flight: Fly the aircraft!

ACTION:

Since each aircraft is manufactured by an individual, it could be possible that there are differences in the canopy installation of each aircraft. Therefore, Zenair is recommending that owners of a CH 601 and CH 650 series aircraft complete the installation of a secondary latching system, as recommended by the Australian CAA 13 January 2009.

Update your POH to include similar warnings and instructions as the AMD 601 POH.

Update your POH for the secondary latch use. Update your Service Manual and other required manuals.

When installing, use the aircraft Design Standards manual, aircraft blue prints, and FAR 43.13-1B & 2B if required.

Remember to check www.newplane.com for all the latest service documentation.
For additional information contact Zenair Ltd.

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Date: 13 January 2009

RECREATIONAL AIRCRAFT AIRWORTHINESS NOTICE

AIRWORTHINESS NOTICE IDENTIFICATION NUMBER: 070109-1 Issue 1

COMPULSORY FITMENT OF A SECONDARY CANOPY LOCKING DEVICE, ON ZODIAC/ZENAIR/ZENITH AIRCRAFT CANOPY

To: All owners and operators of Zodiac/Zenair/Zenith aircraft (all models) fitted with a forward hinging canopy.

Background:

Several reports have been received indicating that the canopy fitted to Zodiac/Zenair/Zenith aircraft are opening in flight causing air turbulence around the tailplane and elevators. These aircraft are capable of flight with the canopy open, but speed and power must be maintained before an immediate landing. A decrease in power or speed will increase turbulent air flow over the elevators and cause a sudden nose down attitude. In addition the pilot should not attempt to close the canopy in flight and elect to land as soon as possible with no erratic manoeuvres.

Discussion:

The canopy fitted to Zodiac/Zenair/Zenith aircraft is of a relatively light construction and it is prone to distortion during flight which can cause the latches to release. In addition, the locking mechanism can be latched without locking adequately.

Action Required:

If not already accomplished;

On or before the next periodic inspection:

1. Manufacture and fit a secondary locking mechanism to the canopy, which has the capacity for 'quick release' in case of an emergency. An example is given in Fig 1 below.

Note: the figures below are examples of a modification carried out by aircraft owners.



Figure 1 above: a simple strap type secondary canopy lock.



Figure 2 above: a simple barrel latch fitted on both sides of the canopy.



Figure 3 above: Another type of quick release latch which could be fitted to each side of the canopy.

Recommended Further Action:

1. It is recommended that the aircraft be fitted with the upgraded locking mechanism available from the aircraft manufacturer in addition to the requirement listed above.
2. Consider replacement of the complete canopy with a heavier modified type, (available from Todd Canopies), who will manufacture a new canopy to the current design.

Reports and Recording;

The initial modification is to be recorded in the aircraft log book citing this AN. Any defects found are to be reported to the RA-Aus office.

This AN replaces AN 270808-1 Issue 1 and includes additional aircraft models.

Stephen Bell

Technical Manager

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

Comment by Phill Barnes on May 9, 2013 on www.Zenith.aero

“A secondary latch is mandatory in Australia. Here is what I did using a sailing boat rope cleat. It's model is a Spinlock PXR0206 and a 6mm rope. Flick the rope firmly rearward to lock and forward to release”.



