Replacement of Stainless Steel Parts on Stranger, Stream, Still, Profi and Profi TL Trike Wings

Safety Directive - 014

Status: Mandatory

Aeros Ltd. May 15, 2013

Background:

In April 2011 it has been brought to our attention that one Profi TL wing had the PRF15.319.000 shackle broken. The investigation showed that the main reason for this was the stainless steel material of which the shackle was made. The chemical analysis that followed has shown that our stainless steel supplier provided us with the wrong stainless steel alloy material (AISI 430 instead of the ordered AISI 321H) which has some special processing properties and could change the crystal structure during hard bending, welding and machining.

On the same day when we got this information the short Safety Directive to ground all wings that could possibly have the part PRF15.319.000 made from the wrong stainless steel sheet was sent to all Aeros dealers concerned.

After this the replacement parts were sent to all the respective dealers for further delivery to the owners of the wings covered by the Safety Directive mentioned above, with instructions to replace the part PRF15.319.000 before the next flight.

In April 2013 we received information about the second case of failure of the stainless steel shackle, Part PRF15.319.000, on a Profi TL wing. We have no means of checking if all wing owners concerned have replaced the shackle in question as required, and we suspect that on some wings the shackle made of the material not suitable for this application might still be in use. Therefore, Aeros strongly recommends to all owners of the trike wings listed below to check the bottom front wires shackle before the next flight. If there is any problem in this place, it can be easily seen well before it becomes dangerous. In case of detecting a crack and/or signs of corrosion on the bottom front wires shackle, or in case of any doubt, please, replace this part through your local Aeros dealer.

Another reliable method of checking whether the bottom front wires shackle on your Aeros wing is made of the right material is its magnetic properties. The shackle made of the correct material either cannot be pulled by a magnet or can be pulled weakly. The shackle made of the wrong material can be pulled by a magnet as an ordinary steel.

Scope:

We have decided to give the wider list of the trike wings affected by this safety directive, because for some period of time two types of stainless steel alloy have been in use.

Here is the list of Aeros trike wings affected by this directive:

Stranger	002.07-084.10 and 004.11; 005.11; 007.11; 008.11; 012.11; 013.11;
	014.11; 015.11; 026.11; 032.11; 033.11
Stream	001.07- 081.10 and 020.11
Still	021.07-090.10 and 001.11; 002.11; 011.11; 027.11
Profi	003.07-082.10 and 003.11; 009.11; 017.11; 023.11; 030.11
Profi TL	006.07-092.10 and 025.11; 028.11

Authorized Persons:

The owner / operator is allowed to execute this safety directive in accordance with the instructions in this directive.

Tools and Articles Required:

For replacement of the bottom front wires shackle you need:

- PRF15.319.000 Shackle
- 39310 2x20 Split Pin

Compliance:

Compliance is mandatory and has to be achieved before the next flight!

How to comply with this directive:

1. Order the part which has to be replaced by sending an e-mail mentioning your name, address and phone number, wing type and its serial number to your local Aeros dealer or directly to aerosint@aerosint.kiev.ua. You will be required to cover shipping and handling (from the local dealer) but you will not have to pay for any parts.

Please, return the replaced parts to your local dealer who sent you the replacement parts. We will require all the replaced parts to be returned to Aeros as a proof that the replacement did take place.

As the original and the replacement parts look very similar, we will mark the replacement hardware with a permanent marker. Make sure that you mount the correct parts.

- 2. How to replace the front bottom wires shackle
 - a) take out the Split Pin and replace the Shackle.
 - b) fix the Clevis Pin with the Split pin.
 - c) assemble the unit.

Reminder:

Don't forget to perform periodical and preflight wing checks! If your wing is more than 4 years old, you have to replace the wires set.

Consult your Stranger, Stream, Still, Profi, Profi TL wing owner Manuals, chapter 4.2.