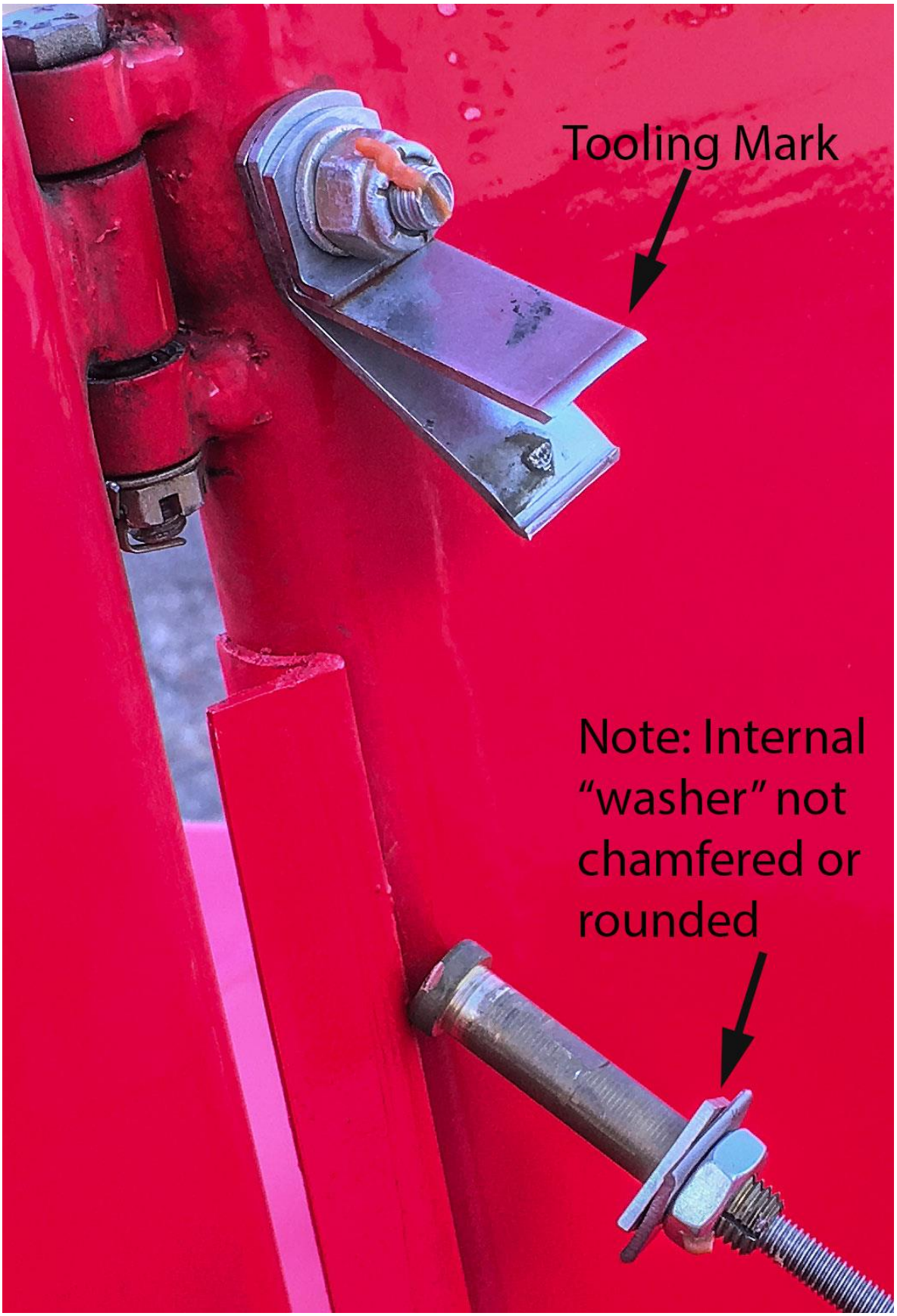
August 16, 2018

Piper Clevis Part Failure

To Whom It May Concern,

On July 7th 2018 I experience a complete break of my upper right hand Piper Clevis. Overview picture below.

Detailed Picture of the break below:


Tooling Mark
Note: Internal "washer" not chamfered or rounded

As you can see in the below image, there appear to be three issues with these brackets:

- Tooling mark, which would seem to act as a stress riser
- Possible insufficient internal bend radius
- Internal “washer” appears to not be properly chamfered (rounded) leading to a sharp edge acting against the internal bend radius, thereby increasing the likelihood of a part failure (I believe this is what caused my part failure)

These parts were sourced as part of an aircraft kit from Backcountry Super Cubs (Douglas, Wyoming. Contact owner: Bruce Reed 307-358-5700).

Backcountry Super Cubs in turn sources these parts from D&E Aircraft, Lake Worth, Florida. Contact owner: Scott Ruffner 561-547-7931

I talked to Scott Ruffner and sent him numerous pictures on July 20th, 2018. Scott confirmed the presence of the tooling mark, as well as confirming that 1) He receives the Piper Clevis [part with the tooling mark] from another unspecified vendor; 2) The internal "washer" is indeed supposed to be chamfered—but all of the parts in his current (at that time) inventory were not chamfered. Scott indicated that his company parts drawing did in fact call for the internal "washer" to be chamfered, but that step was apparently skipped.

I subsequently did some on-line research on the Piper Clevis part. Based on pictures I'm able to see on-line, it appears that other vendors (e.g. Univair, Wag Aero, …) might also source this Piper Clevis part from the same common unspecified vendor—as all of the on-line pictures of this part evidence the same (improper) tooling mark. Hence while D&E Aircraft sells the part for experimental only aircraft (as far as I know), if indeed there is one common source vendor, then certified parts might have the same issues.

Based on the part failure that I experienced, I believe this matter deserves further industry-wide investigation. Hence I'm forwarding this to your attention.

I am happy to discuss this further if need be. I also have pictures of these parts from the above mentioned vendor's on-line catalogs if needed.

I also have the broken parts available (pictures) or hands-on inspection.

Thank you for your time.

Sincerely,

Ted Waltman

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