



RECORD OF EMAIL

Samantha Link
Aviation Accident Investigator
Western Pacific Region

Date: October 11, 2019
Person Contacted: Mr. Matthew Fox (NTSB Senior Materials Engineer)
NTSB Accident Number: WPR19LA205

Narrative:

The tail rotor driveshaft and transmission driveshaft shown in the attached image were examined visually and using an optical stereomicroscope. Fracture features on the tail rotor driveshaft were damaged by post-fracture contact, and remaining fracture features were matte gray and on slant angles consistent with ductile overstress fracture. Surfaces adjacent to the fracture on each piece were deformed inward and showed rotational contact damage consistent with overstress fracture under a rotational bending load. Fracture features on the transmission were on slant angles and had a matte gray appearance also consistent with ductile overstress fracture. The overall pattern of deformation and secondary cracks in the paint adjacent to the fracture were consistent with fracture under a primarily tensile load.



Matthew R. Fox, Ph.D.
Senior Materials Engineer
National Transportation Safety Board

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Figure 1: The Main Driveshaft and Section of the Tail Rotor Driveshaft.

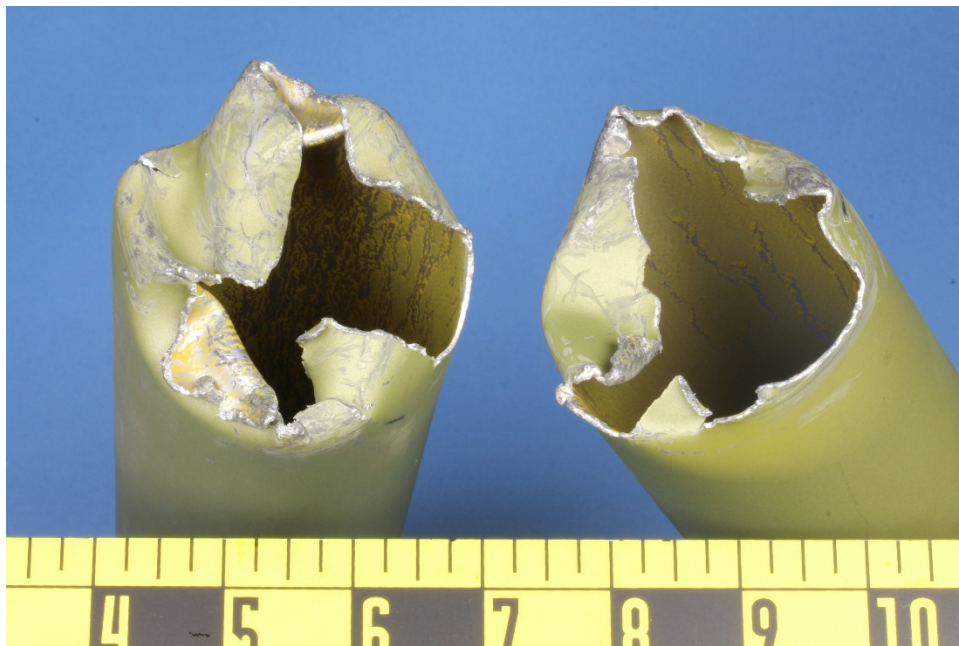


Figure 2: Tail Rotor Driveshaft Fractures

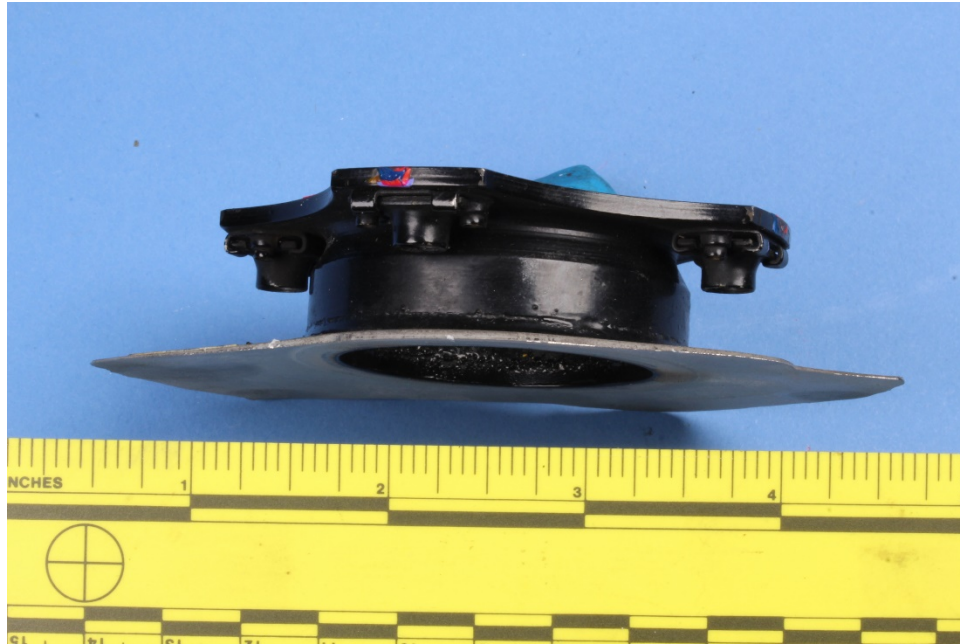


Figure 3: Main Driveshaft Attachment Point



Figure 4: Main Driveshaft Fracture Surface

END.

Submitted by: Samantha Link