

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR22LA093

FACTUAL EXAM REPORT

March 1, 2022

A. ACCIDENT

Location: Chemehuevi Valley, California
Date: February 7, 2022
Airplane: Cessna 152 (N6496L)

B. DETAILS OF THE EXAMINATION

The examination was performed on March 1, 2022, at the facilities of Air Transport, Phoenix, Arizona.

1.0 Airframe Examination

The airframe damage was limited to the left wing, which had folded down at the root (figure 1), and the nosewheel which had bent aft and remained partially attached to the firewall at the lower mount points (figure 2).

The left steering control rod was bent, and the eyebolts for both rods had broken away from the trunnion; the fracture surfaces of the eyebolts exhibited crystalline surface features and bending to their edges consistent with overload. The control rods were continuous from the eyebolts through to the foot pedals, and movement of the rudder pedals resulted in movement of the control rods.

The right rudder cable was continuous from the foot pedals to the rudder horn. The cable exhibited evidence of wear at the aft pulley. The wear included polishing, flattening, and broken wires (figure 3). The pulley was free and could be spun easily by hand.

The left rudder cable had snapped at the aft pulley in the tailcone (figure 4). Aft of the failure, the remaining cable segment was still attached to the rudder horn, and forward of the failure the cable remained attached to the foot pedal assembly. The wires at the failure area exhibited similar wear signatures to the right cable, all in the area of the pulley, which was free and could be spun easily.

The aft rudder stops were intact and there was no obvious evidence of bending.

The shimmy damper remained attached to its steering arm and had broken away from the trunnion. Its mounting bolt was intact, and broken lugs from the trunnion were still attached. The lug separation surfaces exhibited crystalline features consistent with overload.

The right flap was in the retracted position, and due to the damage to the left wing, the left flap was hanging free. The flap control lever was in the 0° flaps position, and the flap indicator was in the 10° position. The flap drive actuator was in the fully retracted position, which was consistent with the flaps set to 0° (figure 5).

Forward and aft movement of the control yoke resulted in appropriate movement of the elevator control surface. The elevator trim tab was flush with the control surface, and the elevator trim indicator in the cockpit was at the "takeoff" position.



Figure 1- Airplane at the accident site



Figure 2 - Nosegear



Figure 3 - Left aft rudder pulley and cable



Figure 4 - Right aft rudder pulley and cable

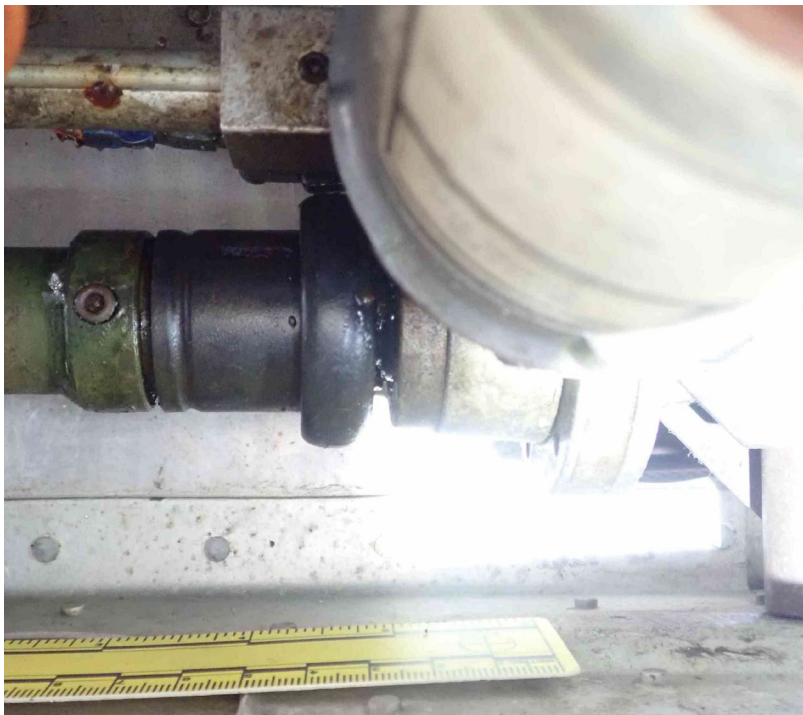


Figure 5 - Flap actuator

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