

April 4, 2019

This information can be found in PTRS # [REDACTED].

On April 3, 2019, I assisted Inspector Rick Bolton in the inspection of the wheel brake system and nose wheel steering system on Cessna 172S, S/N 172S9099, N494JB, as a result of an accident, which occurred at David Wayne Hooks Airport on Thursday, March 28, 2019.

The visual inspection of the wheel brake system indicated positive pressure at the pedals (both sides) when force was applied. The left wheel brake caliper was witnessed as having positive pressure when the toe brake was pressed, along with stopping the wheel from turning when the aircraft was rocked in a forward motion.

We were unable to determine if the right wheel brake would stop the forward motion due to the condition of the caliber and brake disc however, when pressure was applied to the toe brake, the caliper would flex from the internal pressure. There were no hydraulic leaks noted at either wheel brake caliper assemblies.

The fluid level in both master cylinders was checked and found to have an adequate amount of fluid for proper system operation.

Actuation of the rudder pedals verified that the nose wheel steering system was functioning properly.

Daniel Prince

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Aviation Safety Inspector

On April 3, 2019, I met with Inspector Prince to examine N494JB. The aircraft had been damaged when the right main landing gear departed the taxiway and fell off an embankment. The aircraft was on taxiway M which runs North and South. The aircraft was on its way to Runway 17L via taxiways J and K. Taxiway M angles to the right where it intersects taxiway Y to avoid the turning basin of the water runway. It then makes a sweeping left turn to align with the intersection of Taxiway N and J. The aircraft crossed the intersection towards taxiway N. The right main landing gear left the pavement onto the dirt above the drainage ditch crossing under the taxiway. The embankment shows signs where it gave way and the right main landing gear fell into the drainage ditch impacting a large rock.

The force of the landing gear impacting the embankment and rock caused the right main landing gear support tube to shear the bolt and rotate in the saddle located in the aircraft floor. The right main wheel sheared the axle but remained in place. The right wing impacted an object on the ground piercing the leading edge of the right wing. The main wings did not sustain any further damage.

The right horizontal stabilizer and elevator made contact with the ground and there is damage to both the stabilizer and elevator. No other damage was noted.

The statement provided by the pilot at the controls indicated that she was in the left seat and had attempted to steer using the rudder but the aircraft was unresponsive. She then attempted to steer through differential braking but felt no pressure on the brakes. As the aircraft entered the ditch the pilot not at the controls attempted to brake and also stated he felt no pressure.

A local mechanic under our observation removed the wheel skirt from the left wheel. The left pedal was depressed and brake mechanism was visually observed to be operating. This was verified by moving the aircraft and applying the brake. The right brake pedal was actuated and the brake assembly could be seen visually operating. Due to the damage, the right brake could not be tested dynamically.

The nose of the aircraft was lifted slightly by placing weight at the tail. The pedals were moved to full left and right deflection and the nose wheel steering was observed to function correctly.



Rick Bolton
Aviation Safety Inspector