

N684SP Accident Damage Assessment

- WHILE LANDING ON RUNWAY 35, THE AIRCRAFT APPEARS TO HAVE BEEN LANDING IN STRONG CROSS WINDS, CAUSING THE AIRCRAFT TO WEATHERVANE AND VEER TO THE LEFT OF THE RUNWAY ONTO THE GRASS AREA AND EXPERIENCED MULTIPLE PROPELLER STRIKE EVENTS, ALONG WITH THE RIGHT-HAND OUTBOARD WING COMING INTO CONTACT WITH THE RUNWAY AND TERRAIN, CAUSING SUBSTANTIAL DAMAGE TO THE RIGHT WING AND THE FUSELAGE TO WING ATTACHMENT POINTS.
- **Aircraft times:** Cessna 172S S/N 172S8095
 - **Tach time** 700.6
 - **TTAF:** 6218.7
- **Engine Model:** Lycoming IO-360-L2A S/N L-28012-51A
 - **ETSMOH:** 3519.2
 - **ETT:** 6218.7
- **Propeller Model:** McCauley 1A170E/JHA7660 S/N SH089
 - **PTSMOH:** 3519.2
 - **PTT:** 6218.7
- The Propeller sustained substantial rotational damage due to contact with the runway and terrain.
- The Firewall was wrinkled just above the NLG Reinforcement, just right of center.
- The NLG Fork where the nosewheel attaches appeared to be bent on the right side.
- The lower engine cowling had 5 rivets sheared due to grass and dirt wedged in between the nose bowl and cowling skins.
- The signatures noted on the runway indicate the Right Outboard Wing impacted the ground and bent the main wing spar in an aft and upward direction. The right wing was shifted aft, wrinkling the aft wing skin at the wing root, and pushing flap into the right rear cabin window.
- The right-hand cabin door would not close, indicating that the fuselage structure was twisted due to impact.
- The right rear cabin window was cracked due to the penetration of the right-wing flap through the window.
- No structural damage was noted to the empennage structure.
- The lower rudder fairing was cracked due to impact with terrain.
- The engine compression test was normal, all 4 cylinders had compression.
- The engine ignition was tested, and no abnormalities were noted.

- Control cable continuity was performed. All flight controls were connected, and continuity was present. The flight control cables for the Aileron and Flap were not under tension due to the impact and shift in the right-hand wing relative to the fuselage.