

On Scene Investigation Synopsis
N50437, Bellanca 7ECA, S/N 1336-80
08/15/2016 & 08/16/2016

On scene investigation was conducted on 08/15/2016 for an aircraft accident/incident that occurred on 08/14/2016 near the Lino Lakes, MN airport (MN24). The pilot and passenger were on scene for the investigation. Pilot information was collected and appropriate pages of the pilot logbook were photographed. Aircraft maintenance records were provided and appropriate pages of the records were photographed. The aircraft had not been moved and was still inverted in the swampy area in which it ended up. The aircraft was examined and photographed and it was unable to determine the total extent of the damage with the aircraft inverted. There appeared to be damage to the lower cowling and some damage to the fuselage skin aft of the firewall. The propeller was close to perpendicular to the ground. One of the blades appeared to be buried in the soft ground and the other appear to be unmarred and straight. Continuity was verified for all of the flight controls.

The aircraft was retrieved later in the day on 08/15/2016. FAA personnel arrived on scene again on 08/16/2016 to further evaluate the damage. Additional photographs were taken of the aircraft. The upper and lower cowlings were removed by FAA inspectors. There appeared to be some buckling damage to the lower firewall near both lower engine mount attach points. There was damage to the lower fuselage skin aft of the firewall that would be consistent with the firewall buckling. There was also some damage to the aft right wing trailing edge (appeared to be during recovery-video of recovery was viewed while on scene).

The propeller spinner had been removed prior to retrieval. The spinner was examined by FAA inspectors and did not appear to have any noticeable damage. The propeller blades appeared to be mostly undamaged and there was no obvious bending of the blades. The only chaffing on the propeller was on one of the blades, but was horizontal or in line with the longitudinal axis of the propeller. This chaffing appears to be consistent with propeller being pulled out of the ground during the retrieval process. The top spark plugs were removed by FAA inspectors. The plugs appeared to be in good condition. The engine was turned through several rotations with no unusual noises or resistance. The magneto impulse couplings appeared to be working during the rotation which would indicate continuity through the engine. All 4 cylinders appeared to have adequate compression. Fuel samples were taken from the right wing, firewall fuel sump and the fuselage sump drain. All of the samples had the appearance and odor of clean aviation fuel. Both wing root fuel gauges showed readings of just above ¼ tank. A stick was used on both tanks to check the level and it appeared to be consistent with the gauge readings. As follow up, maintenance personnel from the airport that the event occurred at were requested to check engine control continuity. The throttle and mixture were found to have continuity through full travel. The carb heat was found in the "off" and was able to be moved about ½ way toward on. The maintenance personnel stated the travel of the carb heat appeared to be limited by the impact damage to the carburetor airbox.

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