

## Mishap Report – N3910M

DATE: 27 Oct 2023

TIME: 1430 EST

LOCATION: K8B0 - Steve Bean Field, Rangeley, Maine

Landing Rwy 34

WEATHER: Winds 270/5-10

BKN @12,500,

Visibility – 10+

Landing at K8B0 for fuel.

PIC – Mike Wells

### Description of events

Pattern and touchdown uneventful. 3-point landing. Slight tailwheel shimmy, and aircraft began to veer left. Corrected with additional right rudder, little effect, added power, more veer to the left. Attempted to correct drift with right brake, over compensated, added small amount of left brake. Aircraft tail became airborne and aircraft flipped over, coming to rest in the top of wings, fuselage roof, and top of rudder.

Egressed aircraft. Conversated with airfield ops. Minor cut to forehead for PIC and to back of head for passenger and. Emergency response notified.

While waiting for FAA approval to move the aircraft, we were assessing the damage to the aircraft and a local pilot noticed the right tailwheel spring was missing. Several local pilots combed the runway and found the right tailwheel steering spring appx. 300-400 feet prior to the resting point of the aircraft.

After speaking with FAA, I was given approval to move the aircraft. Aircraft was lifted in reverse of the way it became inverted. Lifted using straps on tailwheel leaf spring. Then aircraft was lifted, wings steadied, balanced on nose, lowered on to gear using strap around hand lifts on rear fuselage.

Causal factor – Right Tailwheel spring fell off. With the left crosswind, and the right tailwheel steering spring missing, the pilot was unable to correct for the weather vane effect with normal tailwheel steering operations. At the lower speeds the rudder was marginally effective. As power was added, P-factor in a 3-point attitude was more pronounced and there was no tailwheel steering to counter, possible adverse as tailwheel was not “balanced” between left and right, with left spring only attached. Brakes were used to correct for the left crosswind, P-factor, as tailwheel was ineffective.

Contributing Factors – Left crosswind, high pressure brakes.

Five minutes prior to landing, AWOS was checked for winds. On final, the windsock was visible but after the mishap, it was observed that the windsock is ripped at midpoint and tattered. No real idea of the crosswind at time of landing.

New Dakota Cub high pressure brake masters and Airframes Alaska ABI brake calipers were installed in 2022, along with Aero Classic smooth tundra, 8.50-6 tires. The braking power is quite extreme on the smaller tires, and very little room for error in application of brakes.

#### Damage to Aircraft.

##### **Prop Strike.**

Prop is beyond repair. Engine mount is bent in two locations. Firewall seems good.

Nose cowl is bent, crushed. Side and top cowl are usable with new rivets on the hinges.

##### **Airframe.**

Airframe tubing bent at vertical brace, left front by windscreen. V-brace tubing bent.

Minor buckle in tubing behind lower strut attach point. Battery dislodged from battery box and penetrated skin of aircraft, top right, behind trailing edge of wing.

##### **Wings**

Left wing struts both crumpled, left wing twisted. Horizontal tail and elevators fine. Rudder is crumpled.

##### **Other**

Windscreen is broken, cracked, in pieces.

Gear appears fine.

Avionics – radio, round gauges appear usable.