17-Mar-2020

Accident involving aircraft RV-8, N878DZ at I67 (Cincinnati West airport)

04-Mar-2020 traveled to Cincinnati West airport on report of an aircraft that had departed the runway and damaged airport property. Upon arrival, found RV-8, N878DZ in the grass on the west side of runway 19. Tire skid marks indicated that the aircraft traveled approximately 200 feet starting at the runway center line until going off of the pavement and then traveling approximately another 150 feet in the grass colliding with a VASI along the way.

The damage to the aircraft included; significant damage to the left horizontal stabilizer and elevator, the left flap was separated from the wing, bottom skin of the left wing was damaged and fuel was leaking from the fuel cell, right wing leading edge at the tip was dented, right wheel fairing was damaged from rolling through the grass.

One VASI was sheared from the mount.

13—Mar-2020 Visited the aircraft and pilot at his hangar to examine the tail wheel assembly for a possible malfunction that the pilot reported.

Inspector Hoff and I examined the tail wheel assembly with a focus on the tail wheel 'locking' mechanism. We found that the key slide and spring assembly would stick in the tail fork. The slot in the tail wheel fork was slightly deformed and the key slide had some 'raised' edges. The spring seemed to be in good condition. The steering arm or yoke was in good condition, showed no deformity, damage or wear. The unit appeared to be adequately lubricated.

The steering rod that connects the tail wheel and the rudder is an aftermarket unit called the RV Rocket steering link. This unit does not appear to be a factor with this event.

Attached is a drawing that I received from Vans showing the tail wheel assembly. The key will index the wheel/fork to be steered by the rudder. Once the wheel rotates past the given angle either direction it will disengage and allow the wheel/fork assembly to rotate freely 360 degrees.

Robert W. Craig

Aviation Safety

Maintenance

Cincinnati FSDO

PH: ▮▮▮▮▮▮▮▮