

FAA FSDO, Scottsdale, AZ, Craig Roberts
PMI

On July 9, 2012 at approximately 0929 MST, aircraft N137MP, a Mooney M20L serial number 26-0017, was performing touch and go's on runway 21 at the Scottsdale Airpark (SDL) in Scottsdale, AZ when the pilot lost control of the aircraft and it crashed to the left of the runway. One of the two occupants sustained minor injuries and the other occupant was sustained serious injuries.

The pilot in the left seat is a certified private pilot and the owner of the aircraft, which he had just recently purchased in Florida. The pilot in the right seat is a Certified Flight Instructor who was providing flight instruction to the owner due to the lack of recent flight experience.

Both pilots gave the same account of what occurred stating that the owner flared the aircraft a little high and the aircraft bounced on landing. The power lever was advanced to make a go-around and the flaps were selected up, but the engine did not respond. The CFI then took control of the aircraft.

Video recordings from the Scottsdale tower and the ramp area of Scottsdale Air Center show N137MP approach runway 21 then bounce into the air approximately 20', roll to the right then to the left and veer to the left of the runway, continuing to roll to the left. The left wing tip contacted the ground with the aircraft wings between 70° to 80° to the ground. The aircraft cart wheeled coming to rest upright facing in a North direction.

Two parallel marks were discovered on the runway at the area where N137MP was making its last touch and go. These marks were a whitish color approximately 3' in length for the left mark and 4' in length for the right mark. The distance between the two marks was approximately 9'10". Small flecks of paint the same color as the landing gear doors were found on the runway just past these marks. An examination of the landing gear on N137MP revealed that an STC modification was installed adding "Low Profile Gear Doors". These gear doors are made of fiberglass and are located between the factory gear doors and the main gear assemblies. They cover the brake calipers and are closer to the ground. Both of these doors were found to be ground down on the lower forward corners. The distance between the forward lower corners of the low profile gear doors is consistent with the distance between the marks found on the runway.

On July 12, 2012, an examination of the engine was performed at the Air Transport facility. Performing the investigation for Teledyne Continental engines was Nicole Channon. Engine oil was present in the sump and clean. The top row of spark plugs was removed. All exhibited normal operation with the number 2 plug showing slight soot residue. The engine driven fuel pump was removed from the gear case to inspect the drive coupling. The coupling was found to be in good shape. The engine driven fuel pump contained residual fuel. The engine drive train rotated freely and a "thumb" compression check was performed. All cylinders exhibited a positive compression. The spark plugs were connected to the magneto leads and the engine rotated with the magnetos producing a good spark to all plugs. The fuel injector distributor was removed and disassembled with no defects noted. The distributor contained residual fuel and the

final screen had no contaminants. All three propeller blades exhibited extensive leading edge impact damage along with bending conducive to sudden stoppage under power.

Based on the results of the engine investigation, the physical evidence at the accident scene, and reviewing video of the accident, the conclusion is that the engine was producing power at impact and that the pilot lost control of the aircraft following a hard landing.