

11/09/2016

N201EU Mooney M20J Serial No. 24-0164 Accident Narrative – WPR17LA011, ATQA AWP1717002

At approximately 1800 PST (dusk), October 23, 2016, the aircraft was reported by the PIC to be just beginning a VFR decent and approach for landing at the Coalinga Harris Ranch Airport, (3O8) westbound at approximately 800 to 1000' AGL, with the fuel selector on the right fuel tank. The engine began to sputter several times, and the pilot moved the throttle, prop, mixture controls full forward, and selected the left fuel tank, simultaneously actuating the boost pump in an attempt to restore engine power. The engine continued to cough and sputter, but failed to regain adequate smooth power. The pilot stated that the landing gear were not yet extended, and he thought that he could glide to the runway. The gear, and flaps were then lowered to approach setting, and the resultant increased drag and increased sink rate brought the PIC the realization that the runway would not be reached successfully. The gear were then retracted in an attempt to extend the glide for a landing in an open field just east of the airport, which was surrounded by orchards and high tension wires. Adequate altitude and airspeed were then realized not sufficient to reach the intended open field, as he had to pull up and over to clear the high tension wires, thus sacrificing additional speed and altitude. The PIC radioed another aircraft also approaching 3O8, and then instructed his only passenger to unlatch the cabin door, and the aircraft descended, under full control, into the orchard on a westerly heading just 1 ½ miles east of the airport. The aircraft clipped a half dozen trees, yawing abruptly left and coming to rest upright on a southerly heading, with the nose on the ground, wings level and the tail elevated off the ground caught up in an almond tree. There was major damage to the wings and fuselage structures. There was no fire. The cabin structures remained intact. The only exit, the right cabin door, was completely blocked by the multiple trunks of an almond tree. The pilot and passenger evacuated the aircraft by breaking the right side rear passenger window enough to reach outside, and actuate the exterior handle on the baggage hatch, and then exit the wreckage out through the opened baggage hatch. The PIC was then able to return to the aircraft, and contact the other aircraft in the pattern at 3O8 and advise of no injuries sustained to himself or his passenger, and approximate location.

Subsequent examination of the wreckage at the scene the next morning found the gear in the fully retracted position, and the flaps in the approach setting. There were no signs of fuel leakage into the ground, nor fuel stains on the exterior surfaces of the aircraft, and the fuel system was found completely intact and undamaged, with both wing tanks and strainer free of contaminants. No calibrated fuel quantity measuring stick was found in or in the vicinity of the wreckage. The OEM wet wing fuel system was found to be modified by the installation of rubber fuel cells IAW an STC, which showed a slightly reduced useable fuel quantity available. The fuel selector was found pointed to the left fuel tank. Investigators raised the right wing tip slightly, repositioned the fuel selector to the right tank and drained the remaining contents of approximately 4 ounces of clean blue colored gasoline into a clean glass container. The right fuel tank sump drain was then removed and the entire remaining contents, of approximately 1 teaspoon of blue colored gasoline, was captured in a clean container. The left fuel tank sump was drained completely of its contents, and yielded approximately 7 gallons of clean blue colored gasoline. The flow divider contained a trace of gasoline within. The Fuel Control Unit's fuel inlet finger strainer was found to be clean, free flowing and free of obstructions, and the fuel supply line dribbled a

spoonful of clean blue colored gasoline when disconnected. No water or particulate contaminants were found in the fuel system. The propeller was intact, but blades now lose in the hub due to impact damage, and with the 3 blades bent both forward and aft, with light chord wise scratches and the chord wise rubbing of the paint off of portions of the blades and leading edges, indicating low RPM rotation on contact with the vegetation. The crankshaft was free to rotate. There were no signs of oil leakage from the engine, within the cowl or on the exterior of the aircraft, and the oil dipstick showed 6 quarts when in a level attitude. There were no external visual damages to the engine case, cylinders or accessories. The induction system, exhaust system, magneto, and all other external accessories were securely attached and showed no signs of damage.

Review of the aircraft records revealed the aircraft's required inspections were current at the time of the accident, with the exception of the 14CFR 91.411 and 91.413 24 month altimeter and transponder tests, which were due at the end of September, 2016. A calibrated fuel quantity measuring stick, marked with and identified as applicable to the fuel bladder modification STC installed on the aircraft, was located within the aircraft maintenance records associated with the fuel Bladder modification STC paperwork files.

Several days after the accident, a test stand run attempt of the engine resulted in immediate findings of normal engine priming with the boost pump, normal starting, and normal operations when supplied with adequate fuel. Idle speed, idle mixture magneto checks and run up to maximum power were smooth and normal with a test club propeller installed.

The pilot stated that he had visually checked the fuel quantity in both tanks, and measured with a stick, a fuel quantity of approximately 20 gallons total onboard, prior to departing Hanford Municipal Airport (HJO) about 15 minutes prior to the accident. The aircraft normally consumes 8 to 10 gallons of fuel per hour in cruise flight, per the POH performance charts.

Fritz C Bayer


[Redacted Signature] WP17
Aviation Safety Inspector

Troy T. Wise


[Redacted Signature] WP17
Aviation Safety Inspector