



MEMORANDUM FOR RECORD

Stephen Stein
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR17LA003
Aircraft Registration & Make/Model: N914NK; Kolb Sport 600
Accident Location: Roberts, Idaho
Accident Date: October 8, 2016

Note: The following interview was documented by the Investigator –In-Charge (IIC), Stephen Stein.

Interview #1 Summary

Bryan Toepfer
Overhaul Mechanic, California Power Systems

E-mail correspondence date and time: December 27, 2016; 1439 PT

Mr. Toepfer reported that the two carburetors from N914KN were sent to his shop by Foothills Aviation, a service facility in Buhl, Idaho. The service facility, Foothills Aviation, requested the standard overhaul kit and asked that the needle clip be adjusted one step leaner. When the carburetors were received, the overhaul mechanic disassembled each unit, inspected for cracks, and measured the components. After a cleaning he installed new o-rings and new carburetor diaphragms. Finally, he adjusted the jet needle clip as requested by the customer. The mechanic initially stated that the factory setting of the clip was “3,” and that he adjusted it to “2.” He later changed his answer to include a factory setting of “3” and an adjustment to “1.” He further remarked that he initially advised the service facility not to make the adjustment, but they insisted and he complied.

According to Mr. Toepfer, the carburetor floats are normally replaced on condition. He gave the service facility the option of replacing the floats by purchasing the Bing Deluxe Overhaul Kit, but the facility refused and decided to purchase the Standard Kit, which does not include floats.

He added that the service facility should have weighed the floats before they were sent to California Power Systems. Normally, the floats are soaked in fuel and then weighed to determine if they are within the manufacturer's operating range.



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Interview #1 Summary

Bart Morrow
Mechanic, Foothills Aviation

E-mail correspondence date and time: February 17, 2017; 1040 PT

According to Mr. Morrow, he sent the carburetors to California Power Systems (CPS) after his associate, Rick Robinette, and the accident pilot removed them. Mr. Morrow sent a letter to CPS with instructions from the pilot to re-set the mixture on the carburetors. He asked CPS to rebuild them, which he assumed meant an overhaul and would include new diaphragms. The CPS representative did not explain the difference between a rebuild and a repair. When he spoke with the representative, the CPS employee stated that he doesn't like to adjust the carburetor needle clips to a leaner setting. Mr. Morrow reported that they never disassembled the carburetors, inspected or weighed the floats. The CPS representative never described the difference between the different rebuild kits.



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Interview #1 Summary

Jimmy Byington
Witness

Interview Date & Time: October 31, 2016; 1600 PT

Mr. Byington reported that he was preparing to depart after lunch with the other guests and observed the accident pilot starting his airplane. The engine sounded rough after it was initially started, but smoothed out after a few minutes. After an engine run-up the pilot positioned the airplane to depart, but aborted the takeoff about two-thirds down the runway. He subsequently completed another engine run-up and then aborted the takeoff again. During his third attempt, the airplane lifted off the ground about 650 feet down the runway, but it did not enter a climb. The witness perceived the airplane's low altitude as the pilot's attempt to build speed by remaining in ground effect. As the airplane began a climb it veered to the right and then began a steep turn to the left in a teardrop maneuver. The airplane leveled out and touched down in sage brush, but impacted a pile of debris during the landing roll, cartwheeled, and came to rest inverted. The witness reported that he was unable to hear the engine during the pilot's takeoff attempts and accident flight because other engines were running in the background.



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Interview #1 Summary

Jordan Paskevich
Rotax Flight Safety, Inc.

E-mail correspondence date and time: September 18, 2017; 1046 PT

According to Mr. Paskevich, the Rotax 914UL engine is susceptible to vapor lock. High ambient temperatures may increase temperatures under the engine cowling, which may lead to fuel system heat soak. Additionally, a low fuel quantity may cause fuel system to unport, thus allowing the engine to ingest air. A further condition that may lead to vapor lock in the engine includes a pre-heated engine from a prior flight. The Rotax 914 is equipped with a fuel return line to avoid the engine from becoming vapor locked, but it does not completely prevent the condition from manifesting.



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Interview #1 Summary

Terry Tanner
Witness

Interview Date & Time: October 17, 2016; 1816 PT

Mr. Tanner reported that he sponsors a fly-in event at their dirt strip on their property west of Roberts, Idaho. During this particular fly-in event they hosted 17 airplanes for a group lunch. At the event's conclusion, Mr. Tanner accompanied the accident pilot to his airplane. The pilot boarded the airplane, started the engine, and proceeded to perform a high speed taxi down the runway. He returned and idled the engine for a bit. During this time he indicated to Mr. Tanner that he had vapor lock, which typically disappears once the airplane starts rolling. According to Mr. Tanner, his dirt strip is about 2,200 feet long by about 40 feet wide in a 24/06 runway configuration. During the takeoff roll, the accident airplane departed about 1,000 feet down the runway and was 50 feet in the air about halfway down the runway. As the airplane began its climb it veered to the right, which was followed by a banking turn to the left in a teardrop maneuver at approximately 100 feet above ground level. The pilot reported to Mr. Tanner that the engine "quit him" during the turn. The airplane's wing leveled out as the airplane descended into brush next to the runway. During the landing roll the airplane impacted a 4 foot deep hole

comprised of a pile of debris, nosed over and came to rest inverted. They drained approximately 5 gallons of fuel with a blue tint from the airplane when they removed the wings.