



J10/2/7215 A00-073

SOUTH AFRICAN CIVIL AVIATION AUTHORITY

ACCIDENT REPORT – EXECUTIVE SUMMARY

Date of Accident	1 July 2000	Time of Accident	0900Z
Aircraft Registration	ZS-FVH	Type of Aircraft	PA 28R - 180
Pilot-in-command Licence Type	Commercial	Licence Valid	Yes
Pilot-in-command Flying Experience	Total Flying Hours	940	Total Hours on Type 35
Type of Operation	Training		
Last point of departure	Bethlehem Airport		
Next point of intended landing	Bethlehem Airport		

Location of the accident site with reference to easily defined geographical points (plus GPS readings if possible)

Bethlehem Airport

Meteorological Information	Fine weather conditions prevailed at the time of the accident.		
Number of people on board	2+0	No. of people injured	0
		No. of people killed	0

Synopsis

The aircraft was taken to a maintenance facility, prior to the flight, in order to change the fuel booster pump after it was reported that the engine was running rough. Later the same day, the pilot took possession of the aircraft to carry out advanced training with a student. During the pre-flight inspection the fuel pressure was abnormally high, but not questioned. No abnormalities were noticed while taxiing and the engine was running normal with the fuel booster pump switched off. At the holding point, power checks were carried out and all indications were within limits. After lining up on the runway, the fuel booster pump was switched on and full power was applied against the brakes for a longer time than normal to ensure that everything was operating normal. After take-off the fuel flow became erratic, surging between 12 Gal/hr and 0 Gal/hr, with the fuel booster pump switched on. Shortly after this the engine failed and the aircraft crashed. Investigation revealed that the circuit breaker for the fuel booster pump was tripped after the accident. After resetting the circuit breaker the engine was started and ran normally, but when the fuel booster pump was switched off, the engine failed. The fuel booster pump and the engine driven fuel pump were examined and found to be serviceable, but the fuel booster pump circuit breaker was defective. The aircraft sustained substantial damage during the landing. The pilot held a valid license with the aircraft type endorsed onto his license. Fine weather conditions prevailed at the time of the accident. No on-site investigation was carried out.

Probable Cause(s)

It was not determined why the engine failed on take-off. However, although not the cause of the accident, the circuit breaker of the fuel booster pump was faulty. This could have contributed to the accident as the fuel booster pump serves as a backup for the engine driven pump.

It would appear that the pilot was aware of a problem on the aircraft, yet he chose to push through with the training flight. It is the opinion of the investigator-in-charge that this also contributed to the accident.