Piper PA-38-112, G-BYMD, 7 September 2001 at 1614 hrs

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INCIDENT

Aircraft Type and Registration: Piper PA-38-112, G-BYMD

No & Type of Engines: 1 Lycoming O-235-L2C piston engine

Year of Manufacture: 1982

Date & Time (UTC): 7 September 2001 at 1614 hrs

Location: Shoreham Airport

Type of Flight: Aerial Work (Training)

Persons on Board: Crew - 2

None

Injuries: Crew - None Passengers - N/A

Nature of Damage: None

Commander's Licence: Commercial Pilots Licence with Flying Instructor

Rating

Commander's Age: 35 years

Commander's Flying

Experience: 587 hours (of which 133 were on type)

Last 90 days - 103 hours

Last 28 days - 29 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The instructor reported that the before take-off power checks had been completed normally. The take-off run along Runway 25 was normal with the student as the handling pilot. At about 100 to 200 feet agl, the engine began to surge and cut out repeatedly. The instructor took control, checked that the fuel pump was ON, changed the fuel tank selector and ensured that full throttle was applied. There was no improvement in the engine condition, so the instructor broadcast an 'engine failed' message to ATC, selected a suitable field and carried out a successful forced landing, without damage to the aircraft or injury to the occupants. The engine continued to run at idle rpm after the aircraft came to rest.

Following recovery of the aircraft, it was found that the retaining nut for the 'gascolator' (fuel filter) bowl had failed because the thread was stripped. Therefore, the engine had probably been inducing

air into the fuel system at high power settings, which caused the power fluctuations. With the throttle at idle, there was sufficient fuel to keep the engine running.

The instructor expressed his surprise that the nut was in this condition, as the aircraft had only flown some 13 hours since an annual check. He also pointed out that it could not be visually checked during a normal pre flight inspection.