ACCIDENT

Aircraft Type and Registration:	Cessna 152, G-IAFT
No & Type of Engines:	1 Lycoming O-235-N2C piston engine
Year of Manufacture:	1981
Date & Time (UTC):	26 April 2006 at 1057 hrs
Location:	Newtownards, County Down, Northern Ireland
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Extensively damaged
Commander's Licence:	Private Pilot's Licence
Commander's Age:	35 years
Commander's Flying Experience:	76 hours (of which 71 were on type) Last 90 days - 6 hours Last 28 days - 1 hour
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

Following a normal approach the aircraft 'ballooned' during the flare and stalled shortly after the pilot raised the flaps during the go-around. The left wing tip struck the ground and the aircraft was extensively damaged. The pilot and passenger sustained minor bruising.

History of the flight

This was the first flight that the pilot had flown since receiving his PPL licence and the first time that he had taken a passenger flying. The pilot stated that he made a normal approach to Runway 22 at Newtownards, at a speed of 65 kt, and at 300 ft aal selected 3 stages of flap (30º) and moved the carburettor heat to COLD. The pilot continued the descent into the flare and as the wheels were just about to touch down the aircraft 'ballooned' and so the pilot selected full power and commenced a go-around. The pilot reported that the engine appeared slow to respond and the aircraft initially adopted a level attitude before starting to climb. He then raised the flaps by one stage and shortly afterwards became aware that the airspeed was rapidly decreasing. He, therefore, attempted to lower the aircraft's nose, but before he could regain airspeed the left wing dropped, struck the ground and the aircraft turned over onto its back. The pilot and passenger, who both suffered minor bruising, vacated the aircraft through the normal exists. Both the airport and local fire service attended the scene of the crash.

The CFI of the pilot's flying club saw the aircraft commence its go-around and commented that it was

flying slowly approximately 10 to 15 ft off the ground in a nose high attitude. The aircraft drifted to the left of the runway then appeared to stall and enter an incipient spin to the left. The left wing and nose impacted the ground and the aircraft slid along the ground for a short distance before it turned over onto its back.

The pilot reported that the weather at the time of the accident was good with a wind velocity of 220º to 240º at a steady 10 kt.

Assessment of aircraft and ground marks

The CFI and an engineer from the maintenance organisation that recovered the aircraft reported that after the accident the throttle was found in the fully open position and the flaps and flap selector were found in the fully retracted position; photographic evidence confirmed that the flaps were fully retracted. The engineer also stated that ground marks and damage to the aircraft was consistent with the left wing striking the ground and the aircraft sliding for approximately 60 metres before the nose dug into the grass causing the aircraft to turn over onto its back. The engineer assessed the aircraft as being damaged beyond economical repair.

Description of flaps

The C152 is equipped with slotted flaps that are electrically operated and can be moved to one of three stages corresponding to 10º, 20º and 30º. The flap selector lever is mounted on the instrument panel adjacent to the throttle and the slot in which it moves has two indentations that restrict the movement of the selector lever when the flaps are extended. Movement of the flaps to the first stage (10º) requires the pilot to move the selector lever vertically down, whereas selection of second and third stage of flap requires the pilot to first move the selector lever to the right before it is moved down. However, there is no restriction on the upward movement of the flap selector lever and it is possible for a pilot who intended to move the flaps from 30º to 20º to inadvertently move the selector lever to the fully retracted position.

Comments

Whilst no inspection of the engine was undertaken to determine if it was operating correctly, damage to the propeller blades and cut marks in the ground indicate that the engine was producing some power when the propeller struck the ground. Moreover, there was sufficient runway remaining for the pilot to land the aircraft without having to go around.

A characteristic of the C152 is that if a go-around is attempted with 30º of flap selected then a considerable trim change occurs when full power is applied. Therefore one of the immediate actions for a go-around is to retract the flaps from 30º to 20º, which not only reduces the control forces but also improves the climb performance of the aircraft.

The pilot had been taught that the correct procedure following 'ballooning' was to commence a go-around without delay and to this end he selected full power and moved the flaps from 30º to 20º. However, witnesses and photographs taken immediately after the accident indicate that it is likely that when the aircraft stalled the flaps were in the fully retracted position. It is therefore probable that in undertaking the go-around the pilot inadvertently retracted the flaps and then continued the climb at an airspeed that was too low for the configuration of the aircraft.

Since the accident the pilot has undergone further training in slow speed flight and go-around procedures.