

ACCIDENT

Aircraft Type and Registration:	Enstrom 280C Shark, G-IDUP	
No & Type of Engines:	1 Lycoming HIO-360-E1AD piston engine	
Year of Manufacture:	1979 (Serial no: 1163)	
Date & Time (UTC):	3 June 2014 at 1657 hrs	
Location:	Northampton/Sywell Aerodrome, Northamptonshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to the rotor blades and fuselage, and gearbox shock-loaded	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	70 years	
Commander's Flying Experience:	1,572 hours (of which 1,210 were on type) Last 90 days - 18 hours Last 28 days - 5 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The helicopter was hover-taxed to the airfield refuelling point and positioned parallel to the fuel pumps. It was established in a hover and, as it descended to land, the main rotor blades struck the roof of a small, single-storey building adjacent to the pumps.

History of the flight

The pilot had planned to refuel the helicopter before returning to his private operating site. Having started the helicopter, he was cleared by ATC to hover taxi to the refuelling point, with which he was familiar, from his parking spot on the grass northeast of the apron. The weather was good, with a surface wind from 270° at 7 kt and visibility in excess of 10 km. The hover taxi was uneventful and flown at a skid height of about 4 ft.

The refuelling area, which is on the apron, consists of a small, single storey building and three fuel dispensing pumps, each with their associated hose and nozzle. The pilot approached from the north of the refuelling point, across the apron and slowed to a hover, maintaining the 4 ft skid height. He yawed the helicopter 90° to the right, to land parallel to the pumps, and moved a few feet to his left, remaining clear of the pumps, to ensure the refuelling hose would reach the fuel tank filler on the right side of the helicopter. The pilot then commenced a descent to land but the tips of the rotor blades struck the overhanging

roof of the single-storey building. The pilot landed the helicopter immediately and shut it down, isolating the fuel and electrical systems before vacating through his side door.

The position of the point of impact on the building meant that it was outside the pilot's field of view when he was looking ahead, to land (see Figure 1).



Figure 1

Aerodrome information

The aerodrome operator informed the investigation that a white line surrounds the refuelling area. Also, there are two short parallel white lines, adjacent to a drainage channel (see Figure 2) and opposite the fuel pump nearest the single-storey building, which has a longer hose, that provide position guidance for helicopters being refuelled.



Figure 2

This information does not appear in the United Kingdom Aeronautical Information Publication (UKAIP) or commercially available flight guides.

The UKAIP includes the following information for Northampton/Sywell Aerodrome:

'Ground Movement

- a. No apron markings, caution when parking to ensure adequate wing tip clearance. Aircraft should not block access to the refuelling area and hangar access gate when parking on the concrete apron.*
- b. All parking self-manoeuvring, assistance available on request.'*

The flight guide, which the pilot consulted, states:

'No apron markings, all parking at pilot's discretion.'

Conclusion

The pilot considered that, as he approached the fuel pumps, his eye line was level with the roof overhang and he had not appreciated the potential hazard. On turning parallel with the pumps, the building was then located over his left shoulder, behind him and out of his field of view. When he descended to land, he could not see the obstacle and the main rotor blade tips struck the roof overhang.

The pilot had consulted a commercially available flight guide but was not aware of the unpublished information regarding the white markings at the refuelling area.