

Agusta Bell 206B, G-HMPT

AAIB Bulletin No: 5/97 Ref: EW/G96/11/13 Category: 2.3

Aircraft Type and Registration:	Agusta Bell 206B, G-HMPT
No & Type of Engines:	1 Allison 250-C20 turboshaft engine
Year of Manufacture:	1968
Date & Time (UTC):	25 November 1996 at 0940 hrs
Location:	Pennyghael Forest
Type of Flight:	Aerial work
Persons on Board:	Crew - 1 - Passengers - None
Injuries:	Crew - None - Passengers - N/A
Nature of Damage:	Tail rotor destroyed, slight damage to the stabilizer and rear fuselage and main gearbox lower casing damaged
Commander's Licence:	Commercial Pilot's Licence (H)
Commander's Age:	47 years
Commander's Flying Experience:	7,546 hours (of which 3,198 were on type) Last 90 days - 172 hours Last 28 days - 86 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and telephone enquiries by AAIB

The helicopter was being used to transport Christmas trees as an underslung load out of a plantation to the side of a forestroad. A load had been attached to the remote hook and was lifted clear of the surrounding trees. The pilot then accelerated the helicopter and was intending to climb to about 100 feet agl before turning towards the dump site. At about 80 feet the "ENGINE OUT" warning sounded and the rotor RPM began to decay. (The "ENGINE OUT" warning is a pulsating audio signal that indicates that the gas generator speed is too low.) The pilot landed the aircraft amongst the trees, between two rows.

After the aircraft had landed it was found that the engine had run down to idle though the throttle was still fully open. The pilot shut down the engine in the normal way and after it had stopped he noticed that the turbine outlet temperature was indicating 640_C (normal idle range 540_C to 600_C). He evacuated the aircraft and checked for fire but could find none. There had not been time to release the underslung load and this had contacted the tail rotor, destroying it, on landing.

An engineer examined the aircraft and could find no obvious defect in the engine or its systems. The airframe fuel filter and the filter at the engine driven fuel pump were clear and there was no sign of water in the fuel system. The fuel had been supplied in sealed barrels. These were checked and no sign of any contamination was found. The pilot reported that there was no significant weather at the time, with few clouds present and visibility was 25 km.

The engine was returned to an overhaul agent where it behaved normally in test running. Some defects were found which were not considered relevant to the power failure in flight; the fuel control unit scheduling was slightly out of specification, the anti-icing valve was leaking, the starter gearbox seal was leaking and one ignition excitor was unserviceable. After rectification of these defects the engine was released to service. When it was re-installed in the aircraft, however, the engine would not operate normally until the Power Turbine Governor was replaced. The governor awaits investigation and the results of its investigation will be reported.