

No: 7/90

Ref: EW/G90/03/18

Category: 2c

**Aircraft Type and Registration:** Hughes 269B, G-AVZC

**No & Type of Engines:** 1 Lycoming HIO-360-A1A piston engine

**Year of Manufacture:** 1965

**Date and Time (UTC):** 28 March 1990 at 1820 hrs

**Location:** Hemingbrough, Nr Selby, Yorkshire

**Type of Flight:** Private

**Persons on Board:** Crew - 1 Passengers - 1

**Injuries:** Crew - None Passengers - None

**Nature of Damage:** Beyond economic repair

**Commander's Licence:** Private Pilot's Licence (H)

**Commander's Age:** 42 years

**Commander's Total Flying Experience:** 107 hours (all on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot and examination of the engine by AAIB

The helicopter was being flown at 700 ft when there was a grinding noise from the rear and the engine rpm fell to zero; a heavy landing ensued.

Examination of the engine by a maintenance organisation did not reveal any abnormal debris in the oil filter, however it was reported that the No 4 cylinder valve gear and piston could not be moved. The engine was recovered to AAIB Farnborough where external examination revealed that the No 4 connecting rod had penetrated the crankcase. Both No 4 connecting rod cap bolts were found to have failed in high strain low cycle fatigue; no pre-existing damage to the bolts was found. Secondary damage to the connecting rod and bearing cap prevented the identification of the cause of the initiating stresses. The engine had completed 601 hours since overhaul.