

**Aircraft type and registration:** Enstrom F-28A-UK G-BBIH

**No & Type of engines:** 1 Lycoming H10-360-C1A piston engine

**Year of Manufacture:** 1968

**Date and time (UTC):** 27 June 1986 at 1215 hrs

**Location:** Thruxton Aerodrome, Hants

**Type of flight:** Training

**Persons on board:** Crew — 2                      Passengers — None

**Injuries:** Crew — None                      Passengers — N/A

**Nature of damage:** Damaged drive belt and clutch mechanism

**Commander's Licence:** Airline Transport Pilot's Licence (Helicopters)

**Commander's Age:** 48 years

**Commander's Total Flying Experience:** 7250 hours total, 7000 hours rotary wing (1500 of which were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot and AIB Field Investigation.

The aircraft was being used for a training flight and was in a low downwind position in the circuit when there was a sudden onset of heavy vibration followed by a strong smell of burning. The commander immediately declared a "Mayday" and conducted a successful autorotative forced landing in a field just south west of the airfield without causing any further damage to the aircraft.

Investigation showed that the primary cause of the vibration was the failure of the Yoke End (Part No 28-13299) of the Main Rotor Clutch Idler Pulley Actuator Strap Attachment. This led to partial loss of tension and uneven tensioning of the main drive belt which then started to migrate rearwards and became shredded on the main drive pulley flange. The failure of the yoke has been identified as a fatigue fracture with multiple origins on both sides of the upright portion of the T section close to the tension strap attachment.