

T21 Slingsby Turbo, BGA 326

AAIB Bulletin No: 11/99 **Ref:** EW/G99/08/30 **Category:** 1.3

Aircraft Type and Registration: T21 Slingsby Turbo, BGA 326

No & Type of Engines: 1 Robin 2 stroke piston engine

Year of Manufacture: 1983

Date & Time (UTC): 28 August 1999 at 1445 hrs

Location: Over Louth, Lincolnshire

Type of Flight: Private

Persons on Board: Crew - 2 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Damage to rear fuselage and propeller drive

Commander's Licence: Private Pilot's Licence

Commander's Age: 63 years

Commander's Flying Experience: 692 hours (of which 60 were on type)
Last 90 days - 5 hours
Last 28 days - 3 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

This modified T21 glider had been airborne for some two hours and the pilot had just reduced power in order to descend prior to landing. At this point there was a loud 'bang' co-incident with a total loss of power from the engine. The pilot switched off the engine and, as they were close to the glider owner's farm strip and were aware that fabric was flapping loose on top of the rear fuselage, the pilot decided to land. The landing was uneventful.

This T21 glider had been modified by the installation of a small two stroke engine above the wing which allowed the glider to sustain flight, although it was not capable of self-launching. The propeller was bolted to a layshaft with a reduction gearwheel mounted behind the propeller which was driven by a toothed rubber belt. Inspection after the landing revealed that the propeller and reduction gearwheel had detached from the layshaft due to failure of the single securing bolt. The owner/pilot reported that he considered that the bolt had failed as a result of excessive wear and loading, since the bolt appeared to have 'bottomed out' in its threaded hole when it had been installed, which had allowed the propeller to generate abnormal loads on the bolt during subsequent operation. He reported that a new design of propeller drive would be installed.

