

AIB Bulletin

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Aircraft type and registration:	Beech A35 N 150 JC (light single engined fixed wing aircraft)
Year of manufacture:	1949
Date and time (GMT):	18 June 1983 at 1630 hrs
Location:	Wick Airfield
Type of flight:	Private
Persons on board:	Crew — 1 Passengers — 3
Injuries:	Crew — Nil Passengers — Nil
Nature of damage:	Substantial — fuselage, lower structure, aft of engine, left wing leading edge and tip tank damaged, propeller bent
Commander's Licence:	Private Pilot's Licence
Commander's Age:	49 years
Commander's total flying experience:	3250 hours (of which 445 were on type)

After a sudden power loss at about 180 ft/90 mph on climb-out, with landing gear having been retracted, the pilot lowered the nose to maintain flying speed and operated the standby manual fuel 'wobble-pump' in an effort to restore fuel pressure, which was indicating zero. Some improvement in power was obtained but insufficient to avoid a forced-landing straight-ahead with the landing gear retracted, to minimise affects of contact with a ditch at the perimeter fence. The aircraft slid through the wire fence, slewing through 180° and came to rest after some 50 yds in a barley field. The occupants escaped without injury.

This Bulletin contains facts relating to the accidents which have been determined up to the time of issue. This information is published to inform the public and the aviation industry of the general circumstances of the accidents at the preliminary/stage and must necessarily be regarded as tentative and subject to alteration or correction if additional evidence becomes available.

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Subsequent examinations revealed that the Thompson Model TF-1900 engine-driven fuel pump had suffered failure of the pump rotor in the area of the rotor shaft drive-pin holes.

Previous failures of this type of pump, but arising from failures of the drive pin, caused Beechcraft to issue Service Letter No 55 in March 1981, with a copy of T R W Inc (Thompson Products) Service Bulletin ESD 182D recommending that aircraft equipped with the TF-1900 pump should have them inspected within 6 months/25 hours so that new pins (and rotors, if pin holes exceeded .015 in wear in circumferential plane) could be fitted. It was recommended that repeat inspections should be carried out at 300 hours intervals and pump overhaul at 900 hours.

The owner/pilot has stated that this engine, a Continental E185 - 11 model, had completed some 540 hours since overhaul (in USA) and some 120 hours since last inspection when the pump was removed/examined.

An electric boost pump can be fitted to this type of aircraft. The Civil Aviation Authority had been informed of the circumstances of this accident.