

Aircraft type and registration: Piper PA 24-260 Comanche G-ATIA (light single engine fixed wing aircraft)

Year of Manufacture: 1964

Date and time (GMT): 19 September 1984 at 1335 hrs

Location: St Merryn Aerodrome, Cornwall

Type of flight: Private

Persons on board: Crew — 1 Passengers — 1

Injuries: Crew — None Passengers — None

Nature of damage: Propeller damaged, engine shock loaded, moderate damage to cowl, both wings and lower fuselage

Commander's Licence: Private Pilot's Licence

Commander's Age:

Commander's total flying experience: 224 hours (of which 125 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot, and aircraft examination by AIB during repair

Following a flight from Sywell, the aircraft made an uneventful approach and touchdown on tarmac runway 05 at St Merryn. Full flap was used and was retracted during the landing roll. At a speed estimated by the pilot as 25—30 mph the nose landing gear retracted, followed by the right and then the left main landing gear legs. The aircraft came to rest after a slide of 190 feet and both occupants evacuated without injury.

The landing gear is operated by an electric motor driven screwjack, driving a torque shaft connected to the nose leg via a rod and to each main leg via a teleflex cable. All three landing gear legs are locked down by spring loaded overcentre links, which during retraction are unlocked by the initial actuator travel. Actuator travel is limited by a switch on each leg, which also operates the landing gear locked down indicator light in the cockpit. A weight switch is fitted to inhibit an inadvertent up selection on the ground.

The torque tube radius arm, operating the right leg and the nose leg was found broken off, the left hand bolt attaching the nose landing gear drag strut to the fuselage was found bent, and the teleflex cable operating the left main leg was found buckled. This damage had all been caused by overload and was consistent with the effects of each landing gear leg having unlocked on the ground and having applied ground reaction loads to the gear operating mechanism. A full electrical check of the landing gear operating system will be conducted in the course of the aircraft repair.