

Aircraft Type and Registration:	Glasair RG, G-TRUK	
No & Type of Engines:	1 Lycoming O-320-D1A piston engine	
Year of Manufacture:	1989	
Date & Time (UTC):	26 April 2005 at 1216 hrs	
Location:	Bembridge Airport, Isle of Wight	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to lower forward cowling and propeller. Slight damage to nose gear door and spinner	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	73 years	
Commander's Flying Experience:	1,335 hours (of which 639 on type) Last 90 days - 0 hours Last 28 days - 0 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

The aircraft was conducting a PFA Annual Permit Renewal Flight Test after completion of repairs following a wheels up landing at Bembridge seven months previous. The pilot had flown all previous annual flight tests since acquiring the aircraft in 1991. The aircraft had been signed off as fit to fly by the PFA Inspector, with a Permit Renewal completed by the inspector up to the point of the test flight. The weather was good with a surface wind of 240°/20 kt. Runway 30 was in use.

All ground checks were satisfied and the takeoff was normal. After selecting the main landing gear up the pilot saw that the nose landing gear light remained green. The pilot asked Bembridge radio if his nose wheel had failed to retract; they reported that all of the landing gear appeared to be fully retracted.

Bembridge radio invited the pilot to do a fly by so that they could take a closer look: this he accepted. However, on the downwind leg, before doing the fly by, the pilot decided to recycle the landing gear down and then up to see if the fault would clear. On doing so the nose gear remained green throughout and both main landing gears functioned correctly.

The pilot then decided that there was little point in doing the fly by so he selected the landing gear down and on obtaining three greens said that he was returning to land. As he had indications of the landing gear being down and locked he did not use the emergency lowering system. The pilot asked Bembridge radio on turning finals and on short finals for a visual confirmation that his landing gear was down. On both occasions they confirmed it appeared to be down.

A normal approach, with full flap, was flown at 90 mph followed by a touchdown on the main gear at 80 mph. On lowering the nose the pilot did not feel weight being taken by the nose gear. The nose continued to drop until the propeller struck the runway. The aircraft slid to a halt on its nose on the runway. There was no fire and the pilot vacated the aircraft uninjured. The resident Rescue and Fire Fighting Service were rapidly on the scene and were able to assist in the recovery of the aircraft.

On examining the aircraft, the resident maintenance organisation found severe abrasion damage to the lower forward cowling and to the nose gear door and damage to the spinner, engine and propeller. Their initial investigation suggested that the nose wheel had failed to make its geometric lock due to the undercarriage pump motor locking out early when the nose wheel indicated green, and had thus folded up under the aircraft when it took the weight of the aircraft. No reason has yet been found as to why the nose gear indication stayed green upon an up selection.