

ACCIDENT

Aircraft Type and Registration:	Navion NAV 4, F-BAVZ	
No & Type of Engines:	1 Continental E185-9 piston engine	
Year of Manufacture:	1947	
Date & Time (UTC):	1 July 2012 at 1535 hrs	
Location:	Dunkeswell Airfield, Devon	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to propeller and airframe underside	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	70 years	
Commander's Flying Experience:	1,887 hours (of which 1,783 were on type) Last 90 days - 7 hours Last 28 days - 7 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

When the aircraft returned to its departure airfield because of an engine oil leak, the nose landing gear leg would not lock down. The pilot performed a successful gear-up landing on the grass. Upon examination, it was found that a fractured hydraulic pipe was responsible for the failure of the leg to lock down.

History of the flight

The aircraft was departing for Rouen in France. Soon after getting airborne, oil could be seen streaming aft from the engine compartment due to the oil filler cap having been inadvertently left off. With his visibility severely impaired by the oil, the pilot decided to return to Dunkeswell. However, upon selecting the landing gear down, only the two green lights for the main landing

gear illuminated. Manual pumping of the gear had no effect and ATC confirmed that the nose landing gear leg appeared to be only halfway down.

An attempt to lower the gear by freefall was unsuccessful, so the pilot decided to land with all the gears retracted. ATC directed him to the grass runway to the left of Runway 17 and a successful gear-up landing was accomplished.

On inspection, an aluminium hydraulic pipe was found to have fractured. It was suspected that this was due to the fact that it had been improperly fabricated by hand, since after failure it had sprung several inches from its installed profile, indicating the presence of residual stresses. When the aircraft was lifted, the nose leg was found to lock down under gravity with a small amount of effort.