ACCIDENT

Aircraft Type and Registration:	Hal-26 Push Pak, G-AVPO
No & Type of Engines:	1 Continental C90-8F piston engine
Year of Manufacture:	1967
Date & Time (UTC):	17 April 2007 at 1715 hrs
Location:	Combrook Farm Air Strip, Near Wellesbourne, Warks
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Damage to left wing
Commander's Licence:	Commercial Pilot's Licence
Commander's Age:	64 years
Commander's Flying Experience:	10,514 hours (of which 12 were on type) Last 90 days - 92 hours Last 28 days - 25 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synopsis

During the landing roll, the aircraft 'ground looped' after it had curved to the left of the grass runway and struck a hedge, despite the application of full right rudder by the pilot. The pilot assessed the cause of the loss of directional control to be the tailwheel sinking into a patch of soft ground, and the springs connecting it to the rudder circuit being insufficiently strong to counteract the wheel castoring forces.

History of the flight

The Hal-26 Push Pak is configured with two main landing gear wheels and a tailwheel. Having been airborne for about and 1 hour 20 minutes, the pilot returned to Combrook with the intention of finishing off with two circuits. The wind was 350º/12 kt and Runway 04 was in use, which the pilot reported has a downslope towards the left side.

After a normal approach and touchdown, the aircraft began to curve gently to the left towards the end of a hedge which adjoined the left side of the runway. Despite the rapid application of full right rudder, the aircraft continued to veer left and its wing struck the end of the hedge. The collision swung the aircraft through approximately 270º and it came to rest just off the runway, facing back towards it. The occupants were uninjured and left the aircraft through the cabin door.

The pilot is positive that his foot was not impeded by aircraft structure and that he was able to achieve full

right rudder; he also believes that he was able to apply right wheel brake. He stated that there was no indication of it binding when he taxied out prior to the flight, or during the takeoff, and that the left wheel brake was not binding when he subsequently pushed the aircraft back to its hangar.

When he inspected the runway after the event, he was able to identify his aircraft's wheel tracks and noted that after his point of touchdown, the ground initially was firm but subsequently became softer. It was evident that the tailwheel had sunk in to the soft ground to approximately 2/3 of the depth of its tyre, leaving a square-sided groove. He inferred from this that the tailwheel must, for all practical purposes, have been castoring rather than actively steering the aircraft in response to rudder inputs.

The tailwheel is designed to be disconnected for ground handling and this mechanism reportedly was working correctly after the event. The pilot concluded that the loss of directional control was possibly because the springs, which connect the tailwheel to the rudder circuit, were insufficiently strong to turn the wheel against the depth of the trough that the wheel was making in the soft ground. He noted that the normal practice of holding the control column hard back during the ground roll would have encouraged the tailwheel to bed down into the soft ground.