Nicollier HN 700 Menestrel II, G-MINS

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Aircraft Type and Registration:	Nicollier HN 700 Menestrel II, G-MINS
No & Type of Engines:	1 Volkswagen 1900cc piston engine
Year of Manufacture:	1996
Date & Time (UTC):	24 August 2000 at 1053 hrs
Location:	West Freugh, Wigtownshire, Scotland
Type of Flight:	Private
Persons on Board:	Crew - 1 - Passengers - 1
Injuries:	Crew - None - Passengers - None
Nature of Damage:	Aircraft sustained damage to left wing and left main landing gear, engine cowl and propeller
Commander's Licence:	Private Pilot's Licence
Commander's Age:	62 years
Commander's Flying Experience:	86 hours (of which 39 were on type) Last 90 days - 0 hours Last 28 days - 0 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

After holding for three aircraft to land on Runway 24, G-MINS was cleared for take off from Runway 30. After take off, at about 50 feet, the engine 'faltered and stopped'. The pilot transmitted a 'PAN' call and attempted to land back on the remainder of the take-off runway. The left main landing gear impacted with the runway and the axle failed; the leg 'dug' into the runway surface and pitched the aircraft onto its nose. The aircraft then skidded along the runway on the left main leg, engine cowl and right main wheel, coming to rest after rotating through about 130° to the left. After the ignition and master switches had been selected off, both occupants vacated the aircraft uninjured. The emergency services were rapidly on the scene where there was no fire although fuel was leaking.

The pilot was of the opinion that carburettor icing was the likely cause of the power loss. The airfield 'Crash Observation' included a temperature of 17.2°C and a Dew Point 12.5°C. These conditions are conducive to moderate icing at cruise power and serious icing at decent power. It is possible that ice started to accumulate during the ground holding which had little affect on engine performance at the start of the take-off roll and went unnoticed by the pilot, further ice accumulating during the remainder of the take off. No other reason for the power loss has been

identified. The aircraft was equipped with carburettor heat but because the pilot had not appreciated from his training that carburettor icing could occur on the ground, he had developed a practice of only employing it when airborne.

The pilot/owner is now engaged on repairing the aircraft and is incorporating some modifications. The carburettor air intake ducts, which were of carbon and glass fibre construction, are to be replaced with items fabricated from copper. He has been advised that some heat from the engine will then be conducted to the inlet and assist with avoiding carburettor icing. In addition he is to fit ice detectors to the twin carburettor inlet assemblies, which will light cockpit mounted LEDs in the presence of inlet ice. He also intends to modify his management of carburettor heat to ensure that the inlets are clear of ice before take off.