AAIB Bulletin No: 9/93 **Ref: EW/G93/07/01** **Category: 1c**

Aircraft Type and Registration:	Evans VP-2 Volksplane, G-BHZF
No & Type of Engines:	1 Continental A65-8F piston engine
Year of Manufacture:	1983
Date & Time (UTC):	3 July 1993 at 1010 hrs
Location:	Near Lunnon Village, near Swansea
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Extensive structural damage
Commander's Licence:	Private Pilot's Licence
Commander's Age:	66 years
Commander's Flying Experience:	163 hours (none on type) Last 90 days - 90 hours Last 28 days - 15 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

The flight was to be the third since the aircraft had been acquired from its previous owner, and, as the pilot (not the owner) was unfamiliar with the aircraft type he carried out the pre-flight checks thoroughly with reference to the previous owner's notes. Engine checks and the RPM at the start of the take-off run were satisfactory and the aircraft accelerated well on take off, however, once airborne the airspeed did not build up as expected and power continued to reduce. A forced landing became necessary, during which the left wing caught the top of a hedge and the aircraft nose hit an embedded stone wall.

The air temperature was +20°C and the pilot considered that, had the humidity been high, carburettor icing may have caused the loss of power. An aftercast gave the dewpoint as 15°C and the possibility of carburetor icing at descent power as severe (from CAA No 8805B).

During draining of the fuel tank after landing a piece of silicone rubber sealant was found lodged in the siphon tube. Previous AAIB bulletins contain two cases of fuel system failure in private category

aircraft caused by domestic grade silicon rubber sealant, and the following information is repeated from Bulletin 12/92 :-

"Silicone rubber compounds of the kind sold as bath sealants are not suitable for use in environments in which they are likely to come into contact with petroleum spirits. The material softens, disbonds and swells, particularly in the presence of gasoline. A simple test carried out as a part of this investigation showed that a disc of room temperature curing silicone rubber immersed in aviation gasoline for a period of 48 hours swelled to approximately twice its original size. Clearly, small beads of silicone sealant which drop off and find their way into pipework and valves can not only cause immediate obstruction, but the restriction can become more severe as the material swells over time."