

BULLETIN ADDENDUM

AAIB File: EW/G2001/05/18

Aircraft Type and Registration: Brooker KH QAC Quickie Q2, G-BMZG

Date & Time (UTC): 18 May 2001 at 1845 hrs

Location: Withbybush Airfield, Haverfordwest

Information Source: Aircraft Accident Report Form & additional information from engine examination

AAIB Bulletin No 2/2002, page 17 refers

The evidence available to AAIB at the time of initial publication indicated that carburetor icing was the probable cause of the power loss the pilot had reported in this accident. Later the AAIB received a copy of an examination of the Revmaster engine from this aircraft (G-BMZG) and this report showed a possible technical explanation for the reduction in power reported by the pilot.

Due to the damage sustained in the accident, it was not possible to run this engine. A compression check of the cylinders revealed that cylinders Nos 1, 2 & 3 had compression readings of 73/80, 76/80 and 62/80 respectively, whereas cylinder No 4 would not hold compression at all. This was because No. 4 cylinder had a small negative tappet clearance (-0.002") so that the exhaust valve was still slightly open when it should have been firmly seated. It was also noted in the examination that the top spark plug from No. 4 cylinder was loose in its seating.

The negative tappet clearance on the No. 4 cylinder appeared to be due to fretting between the alloy cylinder head and the steel cylinder barrel. When the attachment studs were examined on the cylinder Nos. 3-4 head, it was found that two of the eight nuts were slack and two were not properly tight. This appeared to have been the cause of the fretting.

It is likely that the reported defects would have developed before the accident flight and would have resulted in rough running and a reduction in rate of climb at take-off.