

## **BULLETIN ADDENDUM**

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| <b>AAIB File:</b>                      | EW/G99/08/33  |
| <b>Aircraft Type and Registration:</b> | Tiger Cub 440, G-MMIM   |
| <b>Date &amp; Time (UTC):</b>          | 29 August 1999 at 1215 hrs  |
| <b>Location:</b>                       | Sarn, Nr Newtown, Powys   |
| <b>Information Source:</b>             | Aircraft Accident Report Form submitted by the pilot and report on the engine strip examination |

Subsequent to the publishing of an account of the above accident in AAIB Bulletin 1/2000 the engine has been stripped and examined.

The engine was mounted in the aircraft inverted, driving a two-bladed tractor propeller. The engine was fitted with cylinder head temperature senders under both spark-plugs. On examination of the engine it was found that the rear piston had melted in the region of the exhaust port. The top piston ring had been exposed with about 15 mm missing and the spark plug was closed up; this was probably caused by the piece of piston ring loose in the head.

On stripping the carburettors, a small (1 x 5 x 0.5 mm) piece of gasket type material was found in the main jet holder of the rear carburettor. No degradation of the fuel pump or fuel lines was found. A filter was fitted between the tank and the fuel pump. There was also found to be an imbalance between the carburettors, the front opening 0.5 mm before the rear responded.

It is the opinion of the BMAA Inspector who examined the engine that the engine failed when the rear spark plug closed, preceded by a loss of power as the piston melted. This overheating was due to a lean mixture, being caused by the main jet becoming blocked by the debris recovered from the float bowl.