

TITLE Pegasus Quik Front Engine Mount Spacer

CLASSIFICATION The CAA have classified this bulletin as Mandatory.

COMPLIANCE Within the next 25 hours

APPLICABILITY All Pegasus Quik (912UL-S engine) up to S/N 7951

INTRODUCTION

The Pegasus Quik has its propeller running behind the keel rather than under it. During startup, there is considerable fore and aft flexing of the propeller blades and some rocking movement of the engine on it's flexible mounts. During the design process a spacer was introduced between the propeller hub and engine driving flange to increase clearance between the rear end of the keel and propeller disk. All Quik aircraft are fitted with this spacer. On the prototype there is a minimum clearance of 155mm, which has in 100 hours of operation not resulted in a propeller/keel strike.

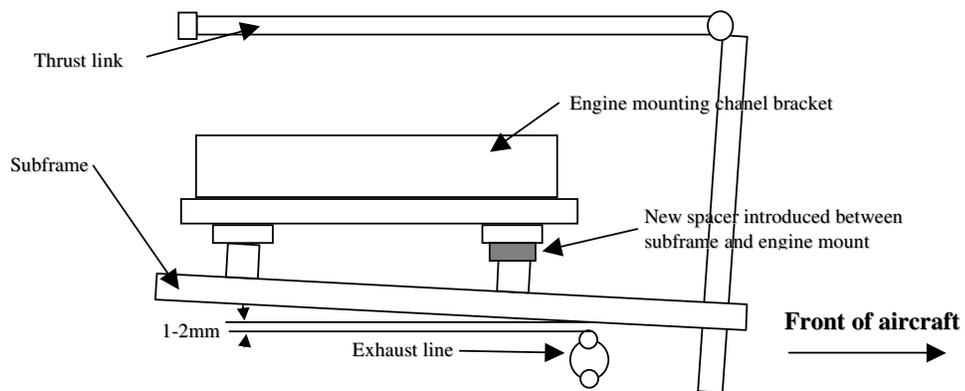
However, due to tolerances in production some Quik aircraft, propeller clearances have been measured at 135mm and this is small enough to give the possibility of a propeller strike on startup. The variation in clearance during production is a result of tolerances including bending of the pylon.

There is no risk of propeller strike except during engine start when the control bar is held near the front strut. The engine idle should be set at approximately 1400 rpm.

ACTION

- 1) Check propeller blade tips and keel for signs of contact. Arrange repair/replacement of parts as necessary before further flight.
- 2) Until modification M100 (engine mount spacer) is incorporated (a maximum period of 25 hours), always start the engine with the control bar held back so the keel rises above the propeller disk.
- 3) Incorporate modification M100 as follows:

In order to increase the clearance to avoid propstrikes, two 10mm thick spacers are introduced between the subframe and forward engine mounts together with a longer engine mounting bolts.



These spacers slightly alter the thrust angle with no consequence to the performance and flying characteristics but creating an additional 25-30mm clearance between the end of the propeller blade and keel. The thickness of the spacers are 10 mm and so the M10X80 bolts should be replaced with two M10X90.



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Firstly, disconnect the top thrust link rod end bolt.

Then unbolt the front engine mounts and fit the 10mm spacers and longer FBM10-90 bolts. Any washers or spacers already present should be removed.

Wind out the thrust link rod end connection so that the rod end bolt is aligned with the mounting plate. Ensure at least 6 threads remain in the thrust link. If necessary, fit M8 washers between the thrust link and the rubber mounting. Lock the rod end nut using Loctite 221. Refit the rod end bolt.

Check the propeller to keel clearance, which should now be at least 170mm. Check there is positive clearance between the front right exhaust pipe and the bottom of the engine mount frame.

The work must be signed off by a BMAA inspector and "Modification 100 (engine mount spacer)" entered in the aircraft technical log.

Pegasus Quik Engine installation drawing YQC-160 has been updated to issue B to show installation of the 10mm spacers and the modification has been incorporated into production.

ISSUED BY W.G.Brooks

DATE 28/04/03