

**TITLE** Pylon hang point bush  
**CLASSIFICATION** Compulsory.  
**COMPLIANCE** Within next 5 hours  
**APPLICABILITY** All Pegasus Quik and Quantum variants up to serial number 8037 ( May 04)

**INTRODUCTION**

It has been noticed that the hang point bush in the top of the pylon have been moving in recent production Pegasus Quik and Quantum aircraft. These parts are not so apparent in aircraft hangared rigged for flight, as it is hard to check whilst the wing is attached to the trike.

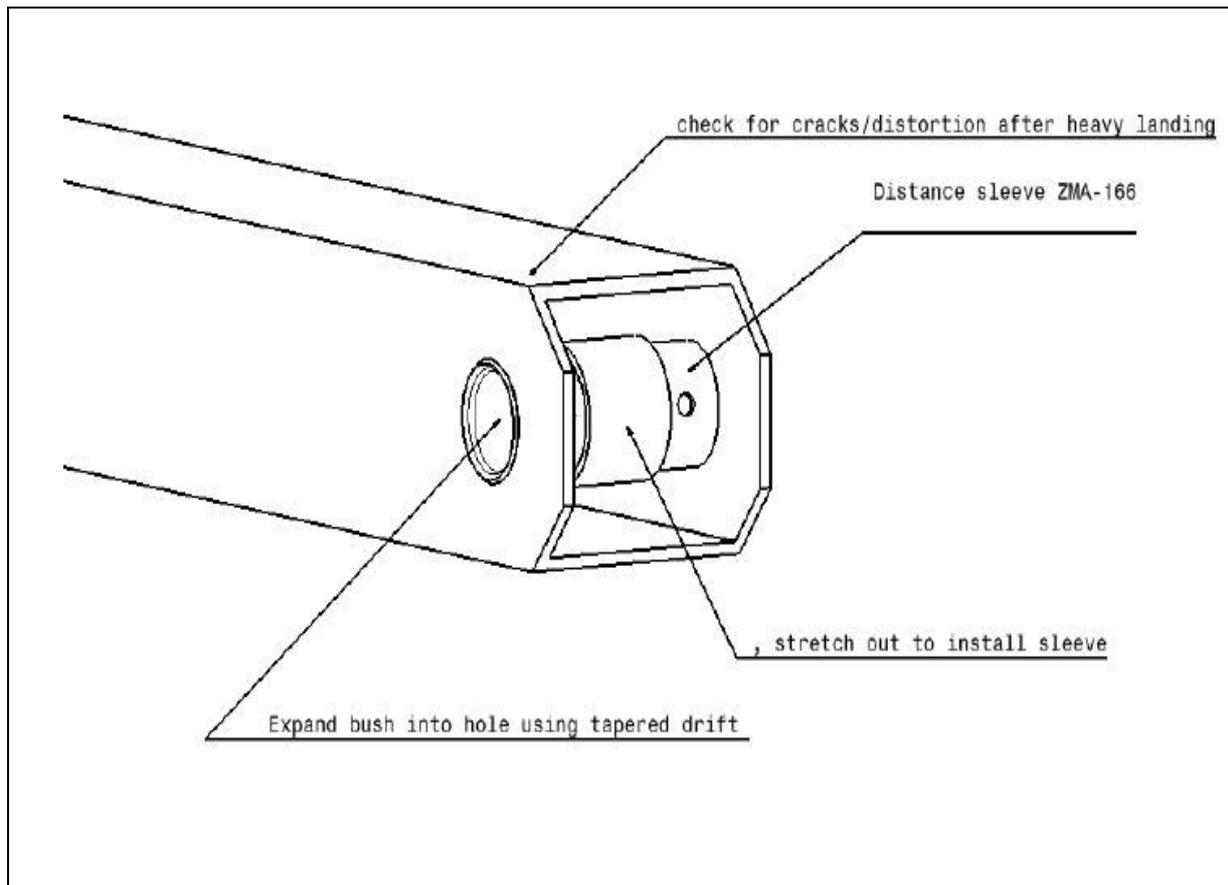
**INVESTIGATION**

The 25mm hang point bush part ZMS-016 in the top of the pylon is expanded into the holes in the pylon walls. Some loose bushes have been noticed recently, which causes fretting and wear. Aircraft before 23/7/01 had seamless stainless steel bushes until the material became unavailable. Since then, the bush has been a seamed carbon steel tube. If the internal seam is not polished out, the nylon bearing seizes on the seam and then the bush rotates in the pylon. The bearing is intended to be between the nylon top hat bushes and the steel bush which should not move in the pylon. The same arrangement exists at the bottom of the pylon on Quantums, and the pylon plates in the base tube on the Quik, which can be checked at the same time, although loosening of bushes here has not been reported as they are only subject to rotation during rigging and derigging.

**ACTION**

Within the next 5 hours, remove the wing and check that the pylon top bush is secure, does not rotate and that the nylon top hat bushes rotate freely. Also check the top corners of the pylon for cracks if there has been a heavy landing or very strong crosswind landings. If the bush is rotating, then proceed as follows

- 1) Remove the top hat bushes by pressing out the brass internal bush. Inspect the 25mm diameter main bush and pylon walls for cracks or unacceptable wear ( more than 0.5mm).
- 2) Check the interior of the bush is smooth, if necessary polish out the seam using a grindstone or if available, an expanding reamer. The seam should preferably be at the bottom.
- 3) If satisfactory, the bush can be expanded into the hole, also applying Loctite 648 to the joint area with no further action. Use a tapered drift, e.g. a lathe tailstock one side and a heavy steel block on the other. Alternatively, if the bush can be removed without causing damage to the pylon, then modification 123 can be installed, which is to fit a distance sleeve ZMA-166 over the bush between the inside walls of the pylon so that the pylon walls are contained when the bush is rivetted in place. Check bush for security every 50 hours in accordance with the Inspection Schedule found in the aircraft Manual.
- 4) Refit the nylon bushes, using a drop of Loctite 648 on the brass bush to retain them. It is good practice to put the hangbolt back in the pylon top to prevent the possibility of loss of the bushes during transport.
- 5) As this is the main connection from wing to trike, the area must be inspected by a BMAA inspector if it has been necessary to carry out remedial work.



#### DOCUMENTATION

The above actions must be entered in the aircraft technical log, and the record must record exactly what was done, with either of the following wording, signed by the Inspector:

1. The Pylon hang point bush has been checked in accordance with Service Bulletin 117, and found to be satisfactory.

Or

2. The Pylon hang point bush has been checked in accordance with Service Bulletin 117, and was found to be rotating, rectification has been carried out in accordance with SB 117.

Or

3. The Pylon hang point bush has been checked in accordance with Service Bulletin 117, and was found to be rotating, Mainair Sports Modification 123 has been installed in accordance with SB 117.

ISSUED BY: Chief Engineer W.G.Brooks

DATE 14<sup>th</sup> May 2004

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