



## SERVICE BULLETIN

SB Number: 16  
 Issue Number: 001  
 Release Date: 11/06/02

<b>Subject:</b>	Propeller Security				
<b>Classification:</b>	The CAA has classified this Service Bulletin 'Mandatory'				
<b>Affected Models:</b>	Shadow D, D-D and Streak Shadow aircraft fitted with Rotax 582 engine and Precision propeller.				
<b>Affected Serial Numbers:</b>	As above.				
<b>Compliance Time:</b>	Before further flight.				
<b>Reason for SB:</b>	Two Serious Incidents where the propeller hub mounting bolts have suffered fatigue failure. Issue 001 of this bulletin provides interim action pending a permanent solution.				
<b>Investigation:</b>	<p>Both aircraft, fitted with Rotax R 582 and 3-blade ground adjusted Precision Propeller, had recorded circa 100 engine hours.</p> <p>Both aircraft utilise six DIN 931 M8 x1.25 propeller hub retaining bolts. The hexagonal headed bolts screw into threaded holes in the gearbox output shaft, and are evenly torqued to 12-14 ft lbs. Locking is provided by Stiff-Nuts installed on the threaded section of the bolt protruding through the gearbox output shaft.</p> <p>In both cases, post incident investigation found the six bolts still located in the threaded holes of the output shaft, with Stiff-Nuts in place. Failure had occurred at thread root and it was confirmed that the bolts were not thread-bound.</p>				
<b>Action:</b>	<p><u><b>BOLT LIFE</b></u>          Determine the time in service of the propeller mounting bolts. Bolts that have exceeded 25 hours in service must be replaced with new bolts obtained from CFM. If it is not possible to determine their time in service, they must be replaced before further flight.          New bolts must be replaced on a continual basis at intervals not exceeding 25 hours. If any bolt is found to be cracked it should be returned to CFM with a note of the hours in service if known.</p> <p><u><b>FITTING NEW BOLTS</b></u>          Ensure that all six bolts are evenly torqued to 12 -14 ft lbs, and that the bolt is not thread-bound in the gearbox output flange. When refitting the Stiff-Nuts (8 - 10 ft lbs) ensure that the bolt in question is prevented from turning.</p> <p>If you are unsure how to carry out any aspect of the above procedures, contact your Local Inspector for guidance and or assistance.</p>				
<b>Material Required:</b>	Replacement bolt part no.: 16A				
<b>Parts Availability:</b>	CFM Aircraft Ltd 2D Eastlands Industrial Estate Leiston Suffolk IP164LL.				
<b>Effective Date:</b>	June 11 <sup>th</sup> 2002				
<b>Design Eng. Name:</b>	A. Bevan	<b>C. Designer Name:</b>	D. Moore	<b>CEO Name:</b>	D. Moore
<b>Design Eng. Sign:</b>		<b>C. Designer Sign:</b>		<b>CEO Sig:</b>	
<b>Date:</b>		<b>Date:</b>		<b>Date:</b>	