

Grant Robinson

From: McConnell, DAVE P <dave.p.mcconnell@lmco.com>
Sent: Tuesday, May 23, 2017 8:22 PM
To: Daryl Dixon
Cc: Grant Robinson
Subject: S-76D Main Rotor Servo Expandable Pin Lubrication

Importance: High

Daryl;

Following is CSE's response to my FTR requesting a No Objection to the application of lubricant on main rotor servo expandable pins.

Case Number: C0061192
Customer: Thai Aviation Services Limited
Aircraft S/N: 761XXX
Aircraft Model: S-76D
ATA: 67
Part Number: 76104-08015-103
Case Subject: MRS Expandable Pin-Approval To Apply Lubrication

Problem Description:

Reference:
Case C0060927
Case C0061047
Case C0061191
FTR 1068T027
FTR 1068T036 CRM Log ID 28259

The TAS S-76D fleet consists of five A/C ranging in A/C TT from 155 .0 to 865.0 hours.

To date TAS have replaced three MRS expandable pins due to looseness and heavy wear of the segments.

The latest pin to be removed was jammed and required two hours (four man hours) to remove.

TAS notes that in all cases the pins were factory installed with only the dry lube normally applied to the pins at manufacture. As per AMM procedures no supplemental lubrication had been applied.

Per FTR 1068T036 the tendency for dry expandable pins to freeze in place is well understood by operators.

The FTR discusses the widespread field practice of applying a light coat of high load grease MIL-G-81827, Lubriplate, or anti-seize to expandable pins prior to installation.

Every FSR and operator canvassed replied that some form of additional lubrication must be used to prevent pin seizing and damage.

TAS request a Sikorsky No Technical Objection to apply a light coat of high load grease MIL-G-81827, Lubriplate, or anti-seize to P/N 76104-08015-103 expandable pins prior to installation. EoM

This email notification is provided as the case has been reviewed and does not contain technical data in the issue description.

Problem Resolution:

Sikorsky Engineering does not have any test data or structural analysis to support the use of any other lubrication other than the dry film lube.

Use of other lubricants or anti-seize may change the coefficient of friction and create a different installation stress on the pin, bushing and lug of the swashplate.

While customers may choose to follow the commonly used maintenance practices of other operators, the expandable pin installation remains a flight safety installation, and Sikorsky Engineering cannot recommend that customers deviate from the approved installation without prior consensus from Rotors Structures and/or Test and Flight Safety Engineering.

If further assistance is needed, please contact Service Engineering.

David P. McConnell

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