

## Thanakom Panyothin

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**From:** Mcconnell, DAVE P <dave.p.mcconnell@lmco.com>  
**Sent:** Thursday, July 26, 2018 6:05 PM  
**To:** Thanakom Panyothin  
**Cc:** Grant Robinson; Atiporn Chiwcharoen; Mrazik, Philip; Daryl Dixon  
**Subject:** S-76D Duct flange crack repair

**Importance:** High

Khun San

Following is the CSE approval to my request to temporarily repair exhaust duct flanges by stop drilling and monitoring.

Case Number: C0100352  
Customer: Thai Aviation Services Limited  
Aircraft S/N: 761000  
Aircraft Model: S-76D  
ATA: 78  
Part Number: 76308-77003 / 76308-77004  
Case Subject: Exhaust Duct Flange Crack-Request To Stop Drill And Monitor

### Problem Description:

On 25 JUL 2018 TAS maintainers performing scheduled maintenance inspections on the S-76D fleet found five exhaust ducts with flange lobe cracks of varying levels of severity.

Qty 02 L/H FWD ducts P/N 76308-77003-041 Post CSN 76-262

Qty 01 R/H FWD duct P/N 76308-77003-042 Post CSN 76-262

Qty 01 L/H AFT duct P/N 76308-77004-043

Qty 01 R/H AFT duct P/N 76308-77004-044

Reference attached JPEG images of the worst-case FWD and AFT ducts.

All cracks occurred on the flanges and typically run around the attach bolt hole. No branching or missing pieces was observed.

This finding has grounded two or the five TAS A/C. TAS has no serviceable exhaust ducts in stores. SCI has no ducts available and has quoted TAS replacement lead times ranging from 203 to 321 days.

TAS had been sending cracked ducts to an in-country repair facility, but the last four ducts that were returned with flange doublers added per AMM Task 78-10-01-300-802 had to be scrapped for being out-of-round. It is not known if the repair facility has developed a process problem, or if ducts having multiple repairs already applied should be fixtured during the welding process.

In order to avoid significant AOG time for two-fifths of the fleet, TAS request SA approval to stop drill and monitor as many of the ducts as possible, and to keep the ducts in service with periodic inspections until such time as the cracks propagate past the stop drill holes, or until receipt of spares, whichever occurs first. EoM

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

**Problem Resolution:**

To continue use, stop drill both ends of existing cracks (using the SRM for guidance). Inspect for growth past the stop drill and monitor the adjacent lobes for cracking – daily. If further cracking is noted, contact Sikorsky for further guidance. Replace when spares are available.

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

**David P. McConnell**

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