Grant Robinson

From: Mcconnell, DAVE P <dave.p.mcconnell@lmco.com>
Sent: Wednesday, June 20, 2018 1:39 PM
To: Jeremy Wilks
Cc: Thanakom Panyothin; Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Jeremy

Following is the response to Case C0076786 asking for damage limits and field repair procedures for the IBF potting cracks.

Case Number: C0076786
Customer: Thai Aviation Services Limited?
Aircraft S/N: 760731
Aircraft Model: S-76C++
Aircraft TT: 5,950
ATA: 75
Part Number: 76302-07800-103?
Case Subject: Inlet Barrier Filter Potting Compound Cracks?

Problem Description:
TAS maintainers have found cracking of the potting compound on inlet barrier filter P/N 76302-07800-103 S/N 1524 Component TSN 1475.1.

The external compound cracks at the anti-rotation lugs are each 10cm (3.93 inches) in length.

Two of the internal cracks are greater than 1 cm (>0.40 inches) and the third crack is less than 1 cm (<0.040 inches).

Reference to AMM CH 75 does not offer any accept/reject criteria for potting compound cracking.

Please advise:
1) Potting compound crack limitations.
2) Is a field repair available for potting compound cracking? If so, please provide a procedure.
EoM

Problem Resolution:
1Q) What are the potting compound crack limitations?
1A) This is a vendor part, SAC has no control over the final design. Please have the customer contact the vendor as follows:

Aerometals
3920 Sandstone Dr.
El Dorado Hills, CA 95762 USA
Attn: Ron Bannister, A&P/Electrician, Technical Support Representative
(916)939-6888 x178 office
(916)939-6555 fax
(415)328-3725 mobile
ron.bannister@aerometals.aero
https://www.aerometals.aero

2Q) Is a field repair available for potting compound cracking?

2A) There are no repairs available. The compound is very hard/rigid and to remove it from a filter element is impossible without major damage.

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

-----Original Message-----
From: Jeremy Wilks <Jeremy_w@tasl.co.th>
Sent: Wednesday, June 20, 2018 12:32
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com>
Subject: EXTERNAL: RE: Barrier filter. Cracks in potting compound.

Hi Dave.
Have you heard anything in regards to the subject matter for HTN?
Thanks

Jeremy Wilks
AME
Thai Aviation Services
NST base
Thai cell 063 375 1356

_____
From: Mcconnell, DAVE P [dave.p.mcconnell@lmco.com]
Sent: 09 January 2018 14:11
To: Jeremy Wilks; Nakhon Supervisor Engineer; Gary Deveau; Mike Goodman; Stephen MacDonald
Cc: Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Jeremy et al

Update - I'm still awaiting a response from Sikorsky, and they are still awaiting a response from the vendor.

Dave

-----Original Message-----
From: Jeremy Wilks [mailto:Jeremy_w@tasl.co.th]
Sent: Tuesday, January 9, 2018 12:46
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com>; Nakhon Supervisor Engineer <nakhon-se@tasl.co.th>; Gary Deveau <gary_d@tasl.co.th>; Mike Goodman <mike_g@tasl.co.th>; Stephen MacDonald <Stephen_m@tasl.co.th>
Cc: Grant Robinson <Grant_r@tasl.co.th>
Subject: EXTERNAL: RE: Barrier filter. Cracks in potting compound.

Adding Gary, Mike and Steve to this string, as they will be on shift.

_____
From: Mcconnell, DAVE P [dave.p.mcconnell@lmco.com]
Sent: 25 December 2017 18:41
To: Jeremy Wilks; Nakhon Supervisor Engineer
Cc: Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Jeremy

Thanks. I'll make sure the factory understands that this is not an isolated problem.

Dave

-----Original Message-----
From: Jeremy Wilks [mailto:Jeremy_w@tasl.co.th]
Sent: Monday, December 25, 2017 18:26
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com>; Nakhon Supervisor Engineer <nakhon-se@tasl.co.th>
Cc: Grant Robinson <Grant_r@tasl.co.th>
Subject: EXTERNAL: RE: Barrier filter. Cracks in potting compound.

Hi Dave.
Yes, it is becoming a common problem. Especially on the outer compound, at the rotation lugs.
I have placed our spare, main filter, from stock, into quarantine, due to external cracking at the lugs, and 2 small cracks on the internal compound.
I have a PAOG order in for the L/H main filter on HS-HTN, as it is due for insp. in about 100hrs. It is currently showing some external cracking at the lugs.
Regards
Jeremy

_____
From: Mcconnell, DAVE P [dave.p.mcconnell@lmco.com]
Sent: 25 December 2017 11:38
To: Jeremy Wilks; Nakhon Supervisor Engineer
Cc: Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Jeremy

Thanks. Would you call it a common problem?

Dave

-----Original Message-----
From: Jeremy Wilks [mailto:Jeremy_w@tasl.co.th]
Sent: Monday, December 25, 2017 10:03
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com>; Nakhon Supervisor Engineer <nakhon-se@tasl.co.th>
Cc: Grant Robinson <Grant_r@tasl.co.th>
Subject: EXTERNAL: RE: Barrier filter. Cracks in potting compound.

Hi Dave.
This isn't the first time we have seen cracking in the compound.
Regards
Jeremy Wilks

_____
From: Mcconnell, DAVE P [dave.p.mcconnell@lmco.com]
Sent: 23 December 2017 06:47
To: Nakhon Supervisor Engineer
Cc: Jeremy Wilks; Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Khun Anusorn

I'm still waiting for a final response from Sikorsky regarding the status of this barrier filter.

I have received one follow up question from them - Is this the first filter you have seen with cracks in the potting compound or have there been others?

Dave

From: Nakhon Supervisor Engineer [mailto:nakhon-se@tasl.co.th]
Sent: Thursday, December 14, 2017 17:25
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com>
Cc: Jeremy Wilks <Jeremy_w@tasl.co.th>; Grant Robinson <Grant_r@tasl.co.th>
Subject: EXTERNAL: RE: Barrier filter. Cracks in potting compound.

Thank you krab.

Best Regards,

Anusorn Srichanon
Supervisory Engineer
Nakhon-se@tasl.co.th<mailto:Nakhon-se@tasl.co.th>
Thai Aviation Services Ltd.
Tel. +66 75 809010 #4300
Mob. +668-9734-5264
Fax. +66 75 809039

From: Mcconnell, DAVE P [mailto:dave.p.mcconnell@lmco.com]
Sent: Thursday, December 14, 2017 4:22 PM
To: Nakhon Supervisor Engineer
Cc: Jeremy Wilks; Grant Robinson
Subject: RE: Barrier filter. Cracks in potting compound.

Khun Anusorn

I will look into it and let you know what I find out.

Dave

From: Nakhon Supervisor Engineer [mailto:nakhon-se@tasl.co.th]
Sent: Thursday, December 14, 2017 15:37
To: Mcconnell, DAVE P (TH) <dave.p.mcconnell@lmco.com<mailto:dave.p.mcconnell@lmco.com>>
Cc: Jeremy Wilks <Jeremy_w@tasl.co.th<mailto:Jeremy_w@tasl.co.th>>
Subject: EXTERNAL: FW: Barrier filter. Cracks in potting compound.

Hi Khun Dave,

As we discussed this morning see below from K. Jeremy. I had been sent this info to FDC/Aerofilter but no reply. Can you please assist to clarification of cracking of the potting compound

Best Regards,

Anusorn Srichanon

Supervisory Engineer

Nakhon-se@tasl.co.th<mailto:Nakhon-se@tasl.co.th>

Thai Aviation Services Ltd.

Tel. +66 75 809010 #4300

Mob. +668-9734-5264

Fax. +66 75 809039

-----Original Message-----
From: Jeremy Wilks
Sent: Wednesday, December 13, 2017 3:55 PM
To: Nakhon Supervisor Engineer
Subject: Barrier filter. Cracks in potting compound.

Hi Khun Anusorn.

Would you be able to pass this issue along to Dave Mcconnell and Sikorsky? In order to get some clarification of cracking of the potting compound.

I have cut and pasted the inspection requirements per the AMM chapt 75.

There is no mention of cracks in the potting compound, or any accept/reject criteria.

The attached photos are from Barrier filter - main. P/N 76302-07800-103 S/N 1524 TSN 1475:07 Removed from HS-HTN S76 C++ on 9 Dec. Due for 300 hr insp. On TC 170057-259 TTAF 5949:57 The external compound cracks at the anti-rotation lugs are each 10cm in length.

2 of the internal cracks are greater than 1 cm and the 3rd crack is less than 1 cm.

Let me know if you need some more info.

Regards

Jeremy Wilks

8. Inspection/Check Barrier Filter.

A. Inspect Barrier Filter. At time interval specified per Scheduled Maintenance Checks, 5-20-00, after filter element cleaning or upon activation of the low inlet pressure warning light, remove and inspect the filter

element. In severe environments, it may be necessary to clean and inspect the element more frequently than

the recommended interval. Regardless of the actual time in service, the physical condition of the element must remain the most important factor to determine the serviceability of the element.

NOTE: When operating in the most severe conditions, it is recommended that a serviceable set of pre-oiled filter elements is available. This will allow continued service while the previously installed set is being cleaned, inspected and reoiled.

(1) Inspect the fine wire mesh on the upstream and downstream surface of the element pleats. Complete erosion of the fine wire mesh of more than 0.50 in. is cause for element rejection. Any evidence of fine wire mesh wear/erosion or general signs of mesh deterioration on the downstream surface is cause for element rejection.

(2) Inspect the course wire mesh on the downstream surface of the front element (76302-07800-104). Any evidence of wire mesh wear or general signs of mesh deterioration are cause for element rejection.

(3) After cleaning and before reoiling: hold the element up to a light and check for holes in the element material greater than 0.020 in. (it is normal to observe pinholes in the filter media particularly at the pleat folds). These pinholes will not allow passage of dirt once the element is oiled. Close the holes if present using a fine pick to reposition the media material to cover the hole.

(4) Check the condition of the entire filter assembly including: element frame for security, seal strips for deterioration and evidence of gaps between element and duct flange, fasteners for security, loose rivets, or worn pins. Engine wash nozzle, tube and valve assembly for security. Repair any defects as required.

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