

BHH Fuel Pipe Inspections

Monday, January 25, 2016

McKenny Van

From: Lambert, Don [REDACTED]
Sent: Monday, January 25, 2016 8:06 PM
To: Bryan Larimore; Seth Buttner; McKenny Van; Meinhardt, Chris; Ehlke, Wayne S; Short, Teri M
Cc: Gray, Archie; Troy Atkinson; Chicosky, John C
Subject: Fwd: EC130T2/Arriel 2D verification of BHH fleet, listing of fuel inlet line style (PN's) installed and SN listing
Attachments: image002.jpg; IMG_0858.jpg
Categories: Active Investigation

Read Troy's email first, then this email may actually make sense.

TEC is working on this to see if concessions were given to use the 2B1 line p/n 0292737310 (skinny) line on the 2D engines which according to the IPC should be 0292730350 (reinforced) line. If this not the case and we have mis configured engines we may have to seek temporary approval from the FAA and TEC to avoid removing these helicopters from service.

Will advise as soon as we get word from TEC.

Begin forwarded message:

From: "Troy Atkinson" [REDACTED]
To: "Lambert, Don" [REDACTED]
Cc: "Eric Lincoln" [REDACTED] "Gray, Archie" [REDACTED]
Subject: EC130T2/Arriel 2D verification of BHH fleet, listing of fuel inlet line style (PN's) installed and SN listing

Don,

As we discussed, we have found that the T2 aircraft in our fleet have 2 different styles of fuel inlet lines installed on them from the OEM.

The IPC for the Arriel 2D engine ONLY shows P/N 0292730350 as applicable for installation.

One style of line is what I call "reinforced" it is PN 0292730350 and this P/N is what is called out in the IPC for the Arriel 2D engine.

(This line is also routed differently and routes underneath the mounting bracket for the igniter box).

The other PN 0292737310 is what I call the NON reinforced line – This PN shows applicability for the Arriel 2B1 engine (only).

I can-not find any reference for this PN, (non-reinforced line) to be installed on the Arriel 2D engine, (not in the IPC or MM), we also looked thru the TM mod index, TU's etc. and can-not find anything mod relating to a different PN line for the Arriel 2D engine.

Note: that N11VQ had the 2B1 P/N fuel inlet line installed from the OEM, (NOT the Arriel 2D P/N).

Today I had my guys inspect all of our EC130T2 aircraft (with Arriel 2D engines) to determine what style/PN line they have on them from the OEM, following is the listing:

(We had previously inspected all lines for cracks and leakage, but I needed to re-verify the PN and style of lines installed).

- N11EQ, SN 7485, (*rental engine) Arriel 2D SN 50024 - Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- o (The original engine SN 50152, (verified it has the correct PN reinforced line installed, this engine is at TM for 4000HR OH).
- N11FQ, SN 7571, Arriel 2D engine SN 50595 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11HQ, SN 7603, Arriel 2D engine SN 50241 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11KQ, SN 7723, Arriel 2D engine SN 50350 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11LQ, SN 7801, (*rental engine) Arriel 2D SN 50022C – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- o (The original engine Arriel 2D SN 50435,(verified it has the correct P/N reinforced line installed, engine currently in shop at BHH)
- N11MQ, SN 7879, Arriel 2D engine SN 50513 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11NQ, SN 7950, Arriel 2D engine SN 50655 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11TQ, SN 8044, Arriel 2D engine SN 50498 – Verified reinforced line P/N 0292730350 installed – Correct P/N as per IPC
- N11UQ, SN 8053, Arriel 2D engine SN 50693 – Verified NON-reinforced line P/N 0292737310 installed – Incorrect as per IPC
- *N11VQ, SN 8070, Arriel 2D engine SN 50708 – Verified NON-reinforced line P/N 0292737310 installed – Incorrect as per IPC
- N11XQ, SN 8113, Arriel 2D engine SN 50742 – Verified NON-reinforced line P/N 0292737310 installed – Incorrect as per IPC
- N11YQ, SN 8156, Arriel 2D engine SN 50788 – Verified NON-reinforced line P/N 0292737310 installed – Incorrect as per IPC
- o Note: This is a new aircraft just delivered on Jan. 20th, is not yet in 135 service (the line will be replaced before next flight).

Please note that we have not replaced any of these lines on our T2 aircraft (2D engines). These P/N lines are what was on the engines when delivered new from the factory. It appears to me that somewhere after Arriel 2D Engine SN 50655, TM started delivering New Engines with the 2B1 P/N 0292737310, (NON-reinforced) fuel inlet lines, (we can only find this PN line as applicable for the Arriel 2B1 Engine as per the IPC. (This PN line is NOT in the Arriel 2D Engine IPC).

(We have taken delivery of 12 New EC130T2 aircraft with the Arriel 2D Engine to date. The first 8 aircraft had engines with the correct P/N fuel inlet line, as per the IPC, the last 4 new aircraft were delivered with the 2B1 P/N fuel inlet line installed, (incorrect P/N as per the IPC).

We have 2 aircraft in service with what I see as having the "possible incorrect PN" fuel inlet lines installed.

These aircraft are N11UQ and N11XQ.

Since researching this and from the data from the IPC's and MM I am having these "suspect incorrect PN" fuel inlet lines replaced immediately, before next flight.

(I have 2 correct fuel inlet lines (reinforced), one from the engine that we sent to TM for O/H and the other from the original engine removed from N11LQ)

So we are changing these now.

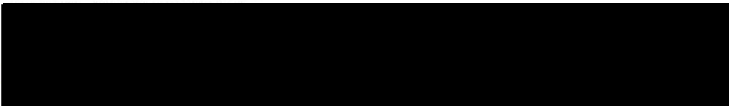
Best regards,

[cid:image001.png@01CCE4F7.30381AA0]

W. Troy Atkinson

Director of Maintenance

Blue Hawaiian Helicopters



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McKenny Van

From: Larimore, Bryan [REDACTED] >
Sent: Sunday, January 24, 2016 4:34 PM
To: McKenny Van
Subject: Blue Hawaiian accident investigation
Attachments: 17-7310-FCD-1320 Inpsection of fuel line B Nut.pdf

Categories: Active Investigation

This information is to ensure that you all have the correct information as it pertains to this accident and the actions that followed.

As you know on 17JAN16 N11VQ an EC130T2 Arriel 2D s/n 50708 operated by Blue Hawaiian experienced a power loss necessitating an auto-rotation resulting in a hard landing. Of the 7 on board, 4 were injured.

During the initial accident investigation we found that the main fuel injection line had cracked and broken. (Picture 1)

Air Methods who owns Blue Hawaiian immediately issued a "Fleet Campaign Directive" (see attachment) to check this area of the line on their entire EC130T2 fleet. During this campaign the base in Iowa City found that this area exhibited what he described as a groove but not cracked. (Picture 2)

Another base in Lake Havesue noticed they had fuel on the engine deck and found a cracked start injector line. (Picture 3) This line is only active during the starting sequence. This was on an AS350B3.

Please keep in mind that this is still an active investigation and that we are still in the fact finding phase.