

From: [Schluep, David M \(FAA\)](#)
To: [Gallo Mitchell](#)
Subject: FW: TAE 125 02-99
Date: Thursday, October 14, 2021 8:28:22 AM
Attachments: [image002.png](#)

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From: Barnes, Stan (FAA) [REDACTED]
Sent: Wednesday, October 13, 2021 10:42 AM
To: Schluep, David M (FAA) [REDACTED]
Cc: gallom@ntsb.gov
Subject: FW: TAE 125 02-99

Good Morning,

Regarding N215BN accident, please see below Q and A's about the fuel feed pump.

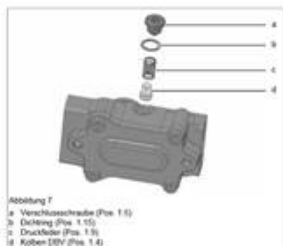
Stan

From: Sebastian Bätz [REDACTED]
Sent: Wednesday, Oct [REDACTED]
To: Barnes, Stan (FAA) [REDACTED]
Subject: AW: TAE 125 02-99

Good afternoon Mr. Barnes,

I'm the responsible for failure analysis and also aircraft accident investigation at continental aerospace technologies GmbH in Germany.

1. Should this bolt be completely seated?
→ yes it should be completely seated, there is also a sealing ring



2. What is the bolt's function?
→ The bolt's function is to fix the pressure reducing valve
3. Can fuel escape, or air enter, the fuel system if this bolt is not completely seated?
→ yes this is possible
4. Will the position of this bolt, as shown, disrupt engine operation in any way?
→ This is not tested at all, but if fuel leaked through the bolt thread gap, there might be not enough fuel provided to the high pressure pump and this will influence the rail pressure.

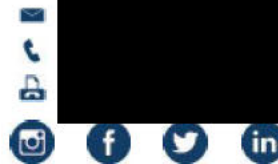
5. When a FFP is shipped new, as a replacement part, is this bolt locked in any way?
→ Yes the bolt is torqued with 12Nm during assembly

Mit freundlichen Grüßen / Kind Regards

Sebastian Bätz

Abteilungsleiter Schadensanalyse | *Head of Failure Analysis*

CONTINENTAL AEROSPACE TECHNOLOGIES GmbH



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on: Chemnitz

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Von: Barnes, Stan (FAA)

Gesendet: Mittwoch, 13

An: Support-CA-GmbH

Betreff: TAE 125 02-99

Good Afternoon,

I am an Aviation Safety Inspector with the Federal Aviation Administration (FAA). I am investigating an accident involving N215BN, a Diamond DA-42, serial no. 42.AC055. The aircraft is powered by TAE 125 02-99 engines. Prior to the accident, both engines had fuel feed pumps (FFP) and high-pressure pumps (HPP) replaced. Of specific interest is the right engine's fuel feed pump (newer design). In the attached photo, there is a bolt at the bottom of the FFP, just under the unit's serial no., that has backed-out 2 or 3 threads. If you will, please address the following questions:

1. Should this bolt be completely seated?
2. What is the bolt's function?
3. Can fuel escape, or air enter, the fuel system if this bolt is not completely seated?
4. Will the position of this bolt, as shown, disrupt engine operation in any way?
5. When a FFP is shipped new, as a replacement part, is this bolt locked in any way?

Thank you in advance for your cooperation. Please feel free to contact me with any questions.

Best regards,

Stan Barnes
Aviation Safety Inspector
CMH-FSDO-07

