

TITLE

ENGINE FUEL AND CONTROL - TRANSMITTAL OF SHADIN SB05-19-001 FUEL FLOW TRANSDUCER 680501K & 680501J LOCKWASHER INSTALLATION

EFFECTIVITY

MODEL	SERIAL NUMBERS
172S	172S12360 thru 172S12364
182T	18283088

REASON

To transmit the original issue of Shadin SB05-19-001 - Fuel Flow Transducer 680501K & 680501J Lockwasher Installation which provides information on loose hardware on the fuel flow transducer. A unit with hardware that can be rotated by hand should have this service bulletin applied.

DESCRIPTION

This service document transmits the original issue of Shadin SB05-19-001 - Fuel Flow Transducer 680501K & 680501J Lockwasher Installation.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at the next 100-hour or 12-month (annual-type) inspection.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit. Only with written authorization from Textron Aviation can substitute parts or rebuilt parts be used to replace new parts.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.
- 4) The mechanic or airplane owner must apply the information in the service document only to aircraft serial numbers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

No individual or corporate organization other than Textron Aviation is authorized to make or apply any changes to a Textron Aviation-issued service document or flight manual supplement without prior written consent from Textron Aviation.

Textron Aviation is not responsible for the quality of maintenance performed to comply with this document, unless the maintenance is accomplished at a Textron Aviation-owned Service Center.

CONSUMABLE MATERIAL

No specialized consumable materials are required to complete this service document.

November 11, 2020

SEL-73-09
Page 1 of 2

Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

This document contains technical data and is subject to U.S. export regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to U.S. law is prohibited. ECCN: 9E991

TOOLING

No specialized tooling is required to complete this service document.

REFERENCES

Shadin SB05-19-001 (Original issue or latest revision)

PUBLICATIONS AFFECTED

None

ACCOMPLISHMENT INSTRUCTIONS

1. Review and comply with Shadin SB05-19-001 Fuel Flow Transducer 680501K & 680501J Lockwasher Installation (original issue or latest revision).
2. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

MATERIAL INFORMATION

Order the parts below to install this modification.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
MS35338-44	2	Lock Washer	N/A	N/A

* Please contact a Textron Aviation Authorized Service Facility for current cost and availability of parts listed in this service document.

TITLE

ENGINE FUEL AND CONTROL - TRANSMITTAL OF SHADIN SB05-19-001 FUEL FLOW TRANSDUCER 680501K & 680501J LOCKWASHER INSTALLATION

TO:

Cessna Model 172S and 182T Aircraft Owner

REASON

To transmit the original issue of Shadin SB05-19-001 - Fuel Flow Transducer 680501K & 680501J Lockwasher Installation which provides information on loose hardware on the fuel flow transducer. A unit with hardware that can be rotated by hand should have this service bulletin applied.

COMPLIANCE

RECOMMENDED. This service document should be accomplished at the next 100-hour or 12-month (annual-type) inspection.

LABOR HOURS

WORK PHASE	LABOR-HOURS
Modification	1.5

MATERIAL AVAILABILITY

No part are required to complete this service document.

PART NUMBER	AVAILABILITY	COST
MS35338-44	*	*

* Please contact a Textron Aviation Authorized Service Facility for current cost and availability of parts listed in this service document.

WARRANTY

This service document is *recommended*. Eligible airplanes may qualify for parts and labor coverage to the extent noted in the *Labor Hours* and *Material Availability* sections of this document.

November 11, 2020

SEL-73-09
Page 1 of 2

Textron Aviation Customer Service, P.O. Box 7706, Wichita, KS 67277, U.S.A. 1-316-517-5800

This document contains technical data and is subject to U.S. export regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to U.S. law is prohibited. ECCN: 9E991

Eligibility: Airplanes identified within the serial number effectivity of this service document must have active Airframe warranty coverage on the original issue date of this document and the coverage must be active on the day the work is accomplished.

Parts Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities, operators, or other maintenance facilities may submit a claim for the parts required to accomplish this service document as defined in the *Material Availability* section of this document.

Labor Coverage: Textron Aviation-owned and Textron Aviation-authorized Service Facilities rated to perform maintenance on the specific model of Cessna Aircraft may submit a claim for the labor necessary to accomplish this service document as defined in the *Labor Hours* section of this document.

Credit Application: After this service document has been accomplished, a claim must be submitted to Textron Aviation within 30 days of the service document completion. Claims for compliance of this service document are to be filed as a W4 type claim.

Please submit your claim form online at ww2.txtav.com/Parts or email the completed Textron Aviation Claim Form to warranty@txtav.com. If submitted on-line a Return Authorization will be provided. If a paper claim is submitted your claim will be entered into the system and a Return Authorization will be sent to you.

The Return Authorization must accompany any required return parts (see *Material Availability*), to the point of purchase.

Parts to be returned to Textron Aviation Parts Distribution should be forwarded to:

Textron Aviation Parts Distribution
Warranty Administration
285 South Greenwich Road
Bldg B89, Docks 1-4
Wichita, KS 67206
USA

Expiration: November 11, 2021 (after this date the owner/operator assumes the responsibility for compliance costs)

Textron Aviation reserves the right to void continued airplane warranty coverage for the parts affected by this service document until the service document is accomplished.

NOTE: As a convenience, service documents are now available online to all our customers through a simple, free-of-charge registration process. If you would like to sign up, please visit the Customer Access link at www.txtavsupport.com to register.

SERVICE BULLETIN

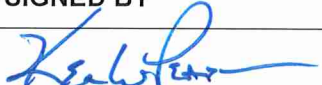
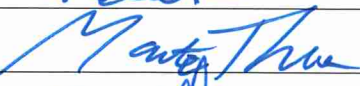

SB05-19-001

Rev A

FUEL FLOW TRANSDUCER 680501K & 680501J LOCKWASHER INSTALLATION



APPROVALS

SIGNED BY	RESPONSIBILITY/ROLE	DATE
Brad Jacobson 	Field Service Manager	5 Dec 2019
Monte Thue 	Director of Engineering	4 DEC 2019
Tom Gillespie 	Quality Assurance Manager	5 DEC 2019

REVISION LOG

REV	DATE	CHANGE
-	18 Nov 2019	INITIAL RELEASE
A	5 Dec 2019	Clarified Effectivity, expanded Compliance

	SERVICE BULLETIN	
ERN #: 1912/006	SB05-19-001	
Rev.: A	FUEL FLOW TRANSDUCER 680501J & 680501K LOCKWASHER INSTALLATION	Page 3 of 7

SCOPE

A. PRODUCT

Shadin Avionics Fuel Flow Transducer (P/N 680501K and 680501J)

B. EFFECTIVITY

Fuel Flow Transducer P/N 680501K and 680501J prior to units annotated with a revision level on the data plate and demonstrating loose hardware beneath the unit. A unit with hardware that can be rotated by hand should have this service bulletin applied.

C. REASON

This Service Bulletin is being issued to add lock washers to the fuel flow transducer assembly. Field service data analysis has shown that fiberglass from the insulation may become trapped under the transducer mounting hardware. In this event, the dimensional stack-up may change which leads to relaxation of the mounting bolt pressure. A lock-washer should be added to make up for the dimensional change and to prevent further rotation.

D. DESCRIPTION

The modification involves removal of the cover, the addition of two lock washers to the assembly and marking of the unit to the latest revision on the label. Units with the revision marked on the label have this change incorporated.

E. COMPLIANCE

This service bulletin is not required for units that do not show symptoms of loose internal hardware.

If the two bolts on the bottom of the unit can be rotated by hand, then this service bulletin should be applied.

This service document may be implemented at a scheduled maintenance period or inspection.

A service document published by Textron Aviation may be recorded as *completed* in an aircraft log only when the following requirements are satisfied:

- 1) The mechanic must complete all of the instructions in the service document, including the intent therein.
- 2) The mechanic must correctly use and install all applicable parts supplied with the service document kit.
- 3) The mechanic or airplane owner must use the technical data in the service document only as approved and published.

	SERVICE BULLETIN	
ERN #: 1912/006	SB05-19-001	
Rev.: A	FUEL FLOW TRANSDUCER 680501J & 680501K LOCKWASHER INSTALLATION	Page 4 of 7

- 4) The mechanic or airplane owner must apply the information in the service document only to fuel flow transducers identified in the *Effectivity* section of the document.
- 5) The mechanic or airplane owner must use maintenance practices that are identified as acceptable standard practices in the aviation industry and governmental regulations.

PROCEDURETools Required:

- #2 Phillips Screw Driver
- 7/16" Open End Wrench
- 7/16" Socket
- Ratchet
- Torque Wrench (Capable of 10 Ft-Lbs.)
- Torque Driver (Capable of 5 In-Lbs.)

Parts Required:

- 2x MS35338-44 Lock-washers

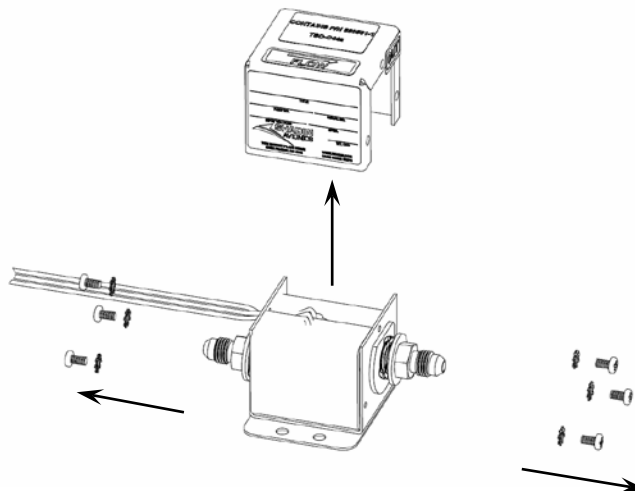
Recommended Safety Equipment:

- Safety Glasses
- Dust Mask
- Protective Gloves

Warning!

This part contains insulation made of fiberglass.
Care should be taken when handling part without the cover.
Wear gloves when manipulating the insulation.

- For disassembly of the cover, remove 6 screws.
- Lift the cover off and peel back the fiberglass insulation.



- Remove locknut and add lock-washer for one bolt (MS P/N: MS35338-44). Only have one locknut loosened at a time.

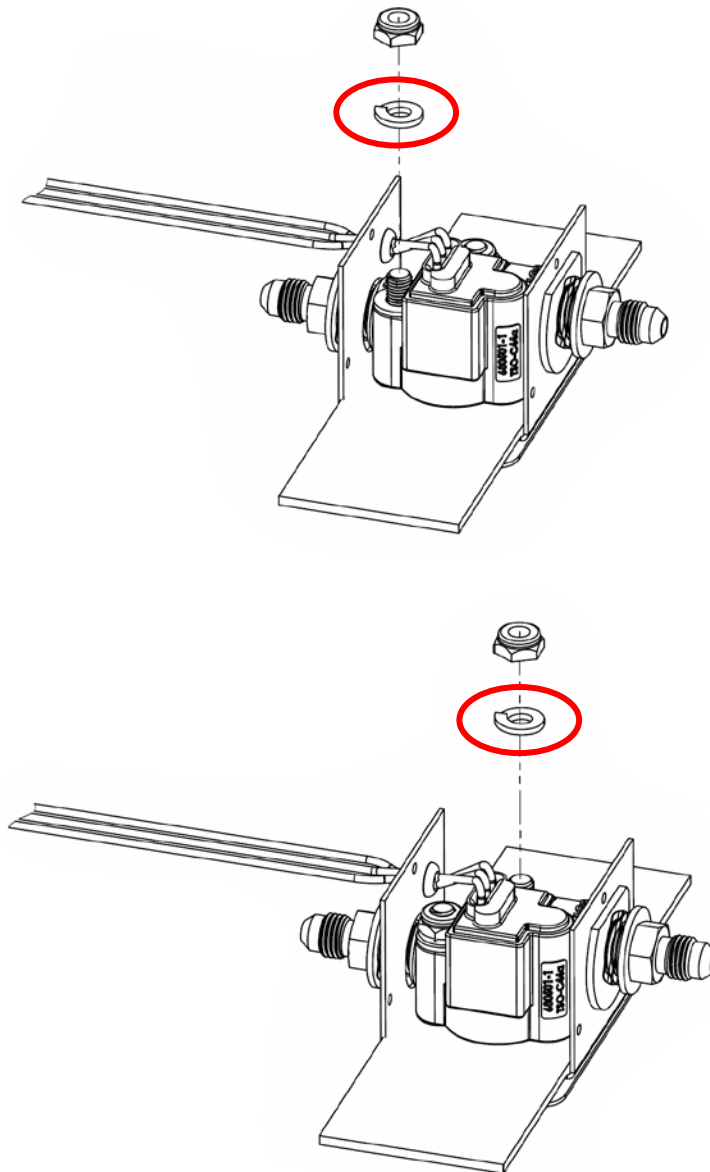
SERVICE BULLETIN**SB05-19-001**

ERN #: 1912/006

Rev.: A

**FUEL FLOW TRANSDUCER 680501J & 680501K
LOCKWASHER INSTALLATION**

Page 6 of 7



- D. While holding one end of the bolt / locknut stationary with the open-end wrench, torque to 10-11 Ft-Lbs.
- E. Repeat steps C and D for the other locknut and bolt.
- F. Fold the insulation over the transducer.
- G. Apply the cover to the enclosure.
- H. Install screws to 5-6.5 In-Lbs.

SERVICE BULLETIN

SB05-19-001



ERN #: 1912/006

Rev.: A

**FUEL FLOW TRANSDUCER 680501J & 680501K
LOCKWASHER INSTALLATION**

Page 7 of 7

- I. Mark transducer label with an indelible marker:
 - o For 680501K, mark “Rev L”
 - o For 680501J, mark “Rev H”Marking should be next to the part number on the label.

Mark Revision here
(680501K Label shown)

Fuel Flow Transducer K-Factor 29.0	
680501K	XXXXXX
PART NO.	SERIAL NO.
+12 VDC	
INPUT VOLTAGE	SPEC.
7555 MARKET PLACE DRIVE EDEN PRAIRIE, MN 5344	WWW.SHADIN.COM CAGE CODE: 0Z5P5