

## Service Bulletin SB-11

**February 10, 2020**

Procedures specified in this service bulletin must be accomplished in accordance with accepted methods of aircraft maintenance and applicable government regulations. Appropriate log book entries must be made.

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### I. SUBJECT

This Mandatory Service Bulletin addresses the elevator trim system, specifically the cable to drive chain connection on some Cessna 208 series aircraft. The defect could result in a loss of continuity in the elevator trim control system resulting in loss of the pilot adjustability of elevator trim.

### II. BACKGROUND

A possible defect in the chain pins that retain the offset chain connector links has been detected. These connector links and their riveted chain pins connect the interconnect cables to the #25 drive chains in the aircraft elevator trim system. The offset chain link is connected with a riveted chain pin to the trim cable terminal during manufacture of cable assemblies. Oversize holes in a specific batch of offset connector links have been found during recent production. The oversize connector holes could result in insufficient chain pin head size to properly retain the chain pin in the connector. This service bulletin affects a small group of trim cables released between May 6, 2019 and December 13, 2019.

### III. AFFECTED AIRCRAFT

The aircraft and parts affected by this service bulletin are as follows:

Make	Series	Model	S/N Range
Cessna	208	208	ALL
Cessna	208	208B	ALL

### IV. AFFECTED PARTS

The parts affected by this service bulletin are as follows:

Part Number	Lot Number	Cable Assemblies	Field Shipment Beginning Date	Field Shipment Ending Date
MC2660001-109	JO56268	Elevator Trim, Actuator Cable Assembly	5/6/2019	12/13/2019
MC2660001-110	JO56254	Elevator Trim, Up Aft Cable Assembly	5/14/2019	12/13/2019
MC2660001-149	JO57953	Elevator Trim, Up Fwd Cable Assembly	8/8/2019	11/19/2019

### V. IDENTIFICATION METHODS

The affected cable assemblies were released from McFarlane Aviation Products (McFarlane) between May 6<sup>th</sup>, 2019 and December 13<sup>th</sup>, 2019. Search the aircraft maintenance records for replacement of the elevator trim cable assemblies listed under Section IV. The affected cable assemblies have a riveted chain pin connecting the offset link to the cable terminal fitting. Note that only McFarlane cable assemblies use an offset link between the cable terminal and the chain connecting link. The original Cessna Aircraft Company cable assemblies does not use an offset link.

## VI. COMPLIANCE

Compliance with this service bulletin is mandatory. Return to McFarlane any cable assemblies of part and lot numbers listed in Section IV that have not yet been installed in the aircraft.

1. If the aircraft maintenance records show that the elevator trim cable(s) were not replaced with McFarlane cable assemblies after May 6<sup>th</sup>, 2019 or the records show that cable assemblies other than McFarlane cables were installed, no action is required. Document compliance of this service bulletin.
2. If the aircraft maintenance records show that the elevator trim cable(s) listed in Section IV were replaced after May 6<sup>th</sup>, 2019 compliance is required per Section VII.

## VII. ACCOMPLISHMENT INSTRUCTIONS

Compliance with this service bulletin must be accomplished as follows:

Note: If ferrying the aircraft for service, perform the following actions before flight:

### Secure Cable before Ferry Flight

- a. Immediately before flight, identify and locate the affected trim system cables.
- b. Use Cessna maintenance instructions to gain access to the affected cable(s).
- c. At each of the affected cable chain pin connection, ensure the chain pin is centered in the offset link and secure with electrical tape.
- d. Wrap electrical tape over the pin three times and pressing the tape flat to the offset link to secure the pin.
- e. Secure the electrical tape on both sides of chain pin with string.
- f. Inspect and confirm that the tape and string are secure, and do not interfere with operation of any aircraft systems.
- g. Remove and discard tape and string after flight.

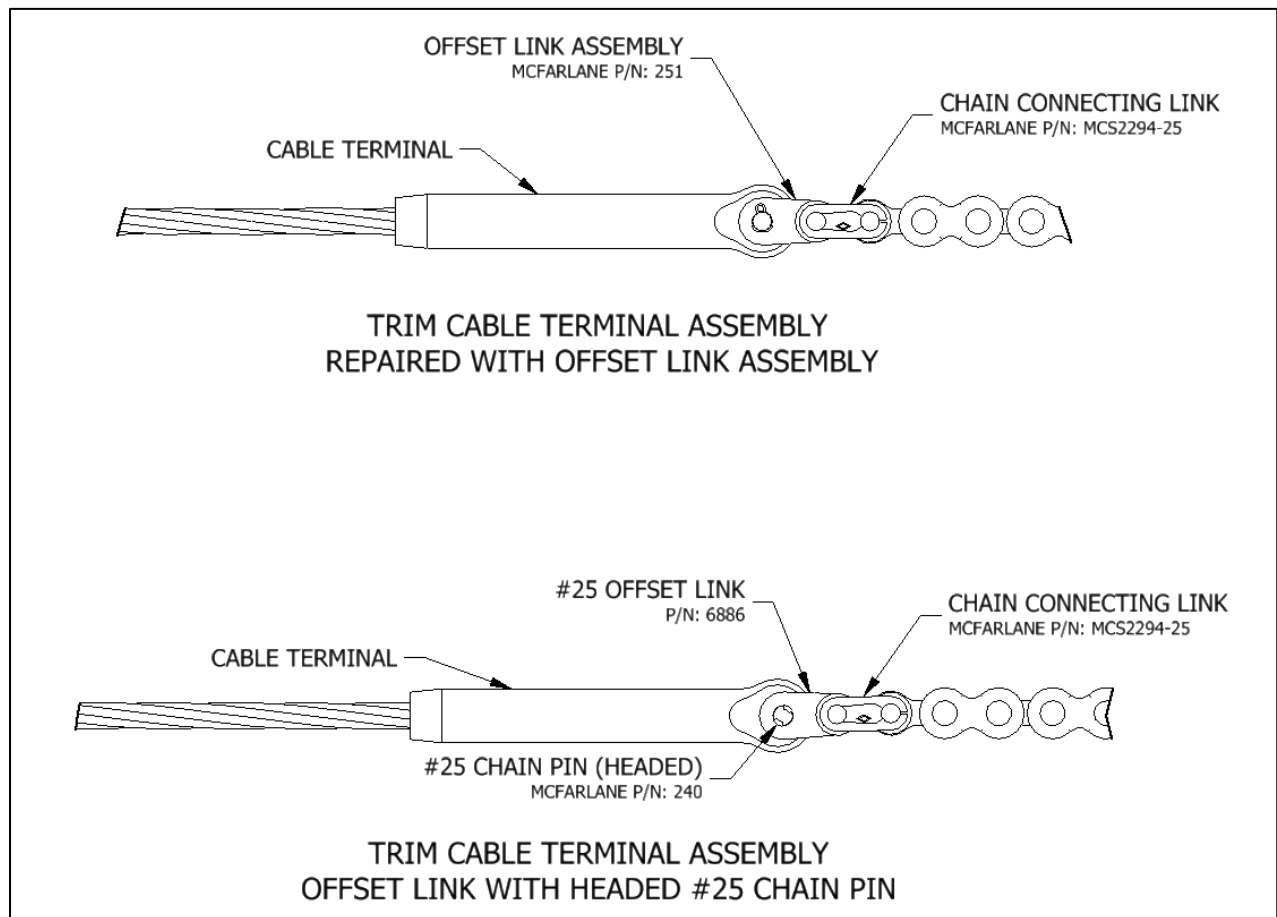


Figure 1 - Comparison of Trim Cable Terminal Assemblies

### Repair Material Information

P/N	QUANTITY	DESCRIPTION	DISPOSITION
6886	1	#25 Offset Link	Discard
240	1	#25 Chain Pin	Discard
251	1	Offset Link Assembly	Install
MCS2294-25	1	Chain Connecting Link	Install

### Repair Instructions

1. Use Cessna maintenance instructions to prepare the aircraft for maintenance and gain access to the affected cable(s).
2. Reduce cable system tension by loosening the most appropriate turnbuckle.
3. With rigging tension off the cable, locate the offset link and chain connecting link; see figure 1 for illustration and description of the connecting hardware. *NOTE: Only McFarlane trim cable assemblies utilize an offset link, and a chain pin connection, to connect to the connecting link.*
4. Disconnect cable by removing chain connecting link.
5. Remove headed clevis pin as follows:
  - a. Support the side of the offset link and the attached cable terminal with a bucking bar or other appropriately sized metal bar.
  - b. Use a .090 pin punch to drive headed clevis pin out of offset link and discard pin (P/N: 240), and offset link (P/N: 6886).
6. Install new Offset Link Assembly as follows:
  - a. Align offset link pin hole with cable terminal pin bore.
  - b. Insert clevis pin through both offset link and cable terminal.
  - c. Press and hold pin against offset link.
  - d. Install cotter pin through end of clevis pin and bend around to secure.
  - e. Inspect the cotter pin for proper installation.
7. Install the new chain connecting link (P/N: MCS2294-25)
8. Check cable routing, installation, and re-tension trim control cable per Cessna instructions.
9. Per Cessna instructions, verify cable installation and perform functional check of the applicable aircraft trim system. Confirm proper adjustment and function of affected trim system prior to returning the aircraft to service.
10. Make an entry in the aircraft log book that states compliance with this service bulletin. Include the specific method of compliance and list the part and lot numbers of the parts installed.

An alternate method of compliance is to replace the affected cable assembly with a cable assembly of a new lot number.

## VIII. MATERIAL PRICE AND AVAILABILITY

Replacement trim cables and offset link assembly (P/N: 251) are available from McFarlane Aviation, Inc.

## IX. CREDIT INFORMATION

McFarlane will replace, at no cost, any affected parts with freight. Credit will be allocated for reasonable labor costs for compliance with this service bulletin.

## X. DISTRIBUTION

This service bulletin has been distributed to all customers for whom McFarlane Aviation, Inc. has sales records indicating the purchase of affected parts. All McFarlane service bulletins may also be found at [www.mcfarlaneaviation.com](http://www.mcfarlaneaviation.com). Please forward this urgent information to the current owner or operator of the affected aircraft. For further information or questions call (800) 544-8594 or (785) 594-2741. All persons are free to copy this bulletin if it is copied in its entirety with no alterations or additions.