

Single Engine



Service Bulletin

October 3, 2012

SEB04-1
Revision 1

TITLE

AILERON HINGE BRACKET INSPECTION

EFFECTIVITY

<u>Model</u>	<u>Year</u>	<u>Serial Numbers</u>
190	1948 thru 1953	7004 thru 7999
190	1948 thru 1953	16000 thru 16183
195	1948 thru 1953	7004 thru 7999
195	1948 thru 1953	16000 thru 16183
195A	1948 thru 1953	7004 thru 7999
195A	1948 thru 1953	16000 thru 16183
195B	1948 thru 1953	7004 thru 7999
195B	1948 thru 1953	16000 thru 16183

PURPOSE

To inspect the inboard aileron hinge brackets for corrosion and cracks. If corrosion or cracks are found, the hinge brackets shall be replaced as directed in this Service Bulletin. Non-compliance with this Service Bulletin may allow corrosion or cracks to go undetected which could result in less than the designed structural integrity of the aileron hinge brackets.

COMPLIANCE

Mandatory; shall be accomplished as a part of the next 100 hour or annual/12 month inspection whichever occurs first and each subsequent 100 hour or annual/12 month inspection thereafter except as noted below.

NOTE: Installation of the new 0322709 and 0322709-1 machined Aluminum hinge brackets will delete the repetitive special inspection requirement.

NOTE: If the aileron hinge brackets have been replaced with Aluminum brackets and if in compliance with SEB04-1 Original Issue, compliance with SEB04-1 Revision 1 is not required.

APPROVAL

FAA approval has been obtained on technical data in this publication that affects airplane type design.

Original Issue: April 26, 2004

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To obtain satisfactory results, procedures specified in this publication must be accomplished in accordance with accepted methods and prevailing government regulations. Cessna Aircraft Company cannot be responsible for the quality of work performed in accomplishing the requirements of this publication.

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MATERIAL

The following are available from Cessna Service Parts and Programs through an appropriate Cessna Authorized Service Facility.

<u>Part Number</u>	<u>Description</u>	<u>Qty/Airplane</u>
0322709	Hinge Bracket, Left	1 (if required)
0322709-1	Hinge Bracket, Right	1 (if required)
MS21044N4	Nut	4
MS21044N3	Nut	10
U074093	Alodine 1132 Marker	(as required)
K000912	Epoxy Primer	(as required)

ACCOMPLISHMENT INSTRUCTIONS

Change In Weight And Balance

Model	190/195
Weight Change	Negligible

Material Information

The following parts may be necessary:

New P/N	Quantity	Description	Old P/N	Disposition
0322709	1 (as necessary)	Aileron Hinge Bracket (Left)	Same	Discard
0322709-1	1 (as necessary)	Aileron Hinge Bracket (Right)	Same	Discard
MS21044N4	4	Nut	Same	Discard
MS21044N3	10	Nut	Same	Discard

The materials below, or equivalent may be necessary.

NAME	NUMBER	MANUFACTURER	USE
Touch-N-Prep (color chemical film treatment)	Alodine 1132	Parker Amchem 32100 Stephenson Highway Madison Heights, Michigan 48071	To apply to bare metal.
Corrosion Resistant Primer	513 x 419910 x 942	PRC-DeSoto International 5430 San Fernando Road Glendale, CA 91209	To apply to bare metal.

1. (Refer to Figure 1, Sheet 1.) Electrically ground the airplane and turn all switches to the "OFF" position. If external power is connected to the airplane, disconnect external power from receptacle.
2. Remove the battery access panel and disconnect the airplane battery. (Refer to the Cessna 190 & 195 Parts Catalog.)
3. Attach maintenance warning tags to the battery and external power receptacle with the following instructions: **DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS.**
4. Measure and record the range of up and down travel of both ailerons.

NOTE: The aileron range of travel information will be needed to install the ailerons.

NOTE: The specified range of up travel is 25° and the down travel is 25°.

5. Remove the ailerons. (Refer to the Cessna 190-195 Parts Catalog.)
 - A. Disconnect the aileron pushrod from the aileron on each wing.
 - (1) Keep the bolts and washers if serviceable.
 - (2) Discard the nuts.
 - B. Remove the aileron attach bolts and washers from the inboard and outboard aileron brackets on each wing and remove the ailerons.
 - (1) Keep the bolts and washers if serviceable.
 - (2) Discard the nuts.
6. (Refer to Figure 1, Sheet 1.) Remove the inboard 0322709 (left) and inboard 0322709-1 (right) Aileron Hinge Brackets from the wing rear spar. (Refer to the Cessna 190 & 195 Parts Catalog.)
 - A. Keep the bolts and washers if serviceable.
 - B. Discard the nuts.

CAUTION: DO NOT USE A MECHANICAL METHOD TO REMOVE THE PAINT FROM MAGNESIUM AILERON HINGE BRACKETS.

7. Remove the paint from the 0322709 and 0322709-1 Aileron Hinge Brackets.
8. Do a visual inspection of the 0322709 and 0322709-1 Aileron Hinge Brackets for corrosion and cracks.

NOTE: The original and older replacement inboard aileron hinge brackets were made of Magnesium which has a greater potential to corrode or crack than aluminum.

- A. Look on the aileron hinge brackets for identification as follows:
 - (1) Magnesium forged brackets have a 0822605-497 or a 0322707-2 mark on them.
 - (2) Aluminum forged brackets have a 0822605-499 mark on them.

(3) If the brackets have no marks, they are aluminum.

- B. If corrosion or cracks are found on the 0322709 and/or 0322709-1 Aileron Hinge Bracket, replace the bracket with a new Aluminum aileron hinge bracket as necessary.

NOTE: The new replacement 0322709 and 0322709-1 Aileron Hinge Brackets are Aluminum.

(1) Apply Alodine and corrosion resistant primer to the new aileron hinge bracket part and paint to match the airplane finish.

(2) Go to Step 9 to install the new aileron hinge bracket(s).

- C. If no corrosion or cracks are found on the 0322709 and 0322709-1 Aileron Hinge Brackets, install the aileron hinge brackets back on the wings. (Refer to the Cessna 190 & -195 Parts Catalog.)

(1) Apply corrosion resistant primer to the aileron hinge bracket part and paint to match the airplane finish.

(2) Go to Step 9 to install the aileron hinge brackets.

9. Install the aileron hinge brackets. (Refer to the Cessna 190 & 195 Parts Catalog.)

A. (Refer to Figure 1, Sheet 2.) If a new hinge bracket is being installed, the 0322715-1 Aileron Fillet may need to be trimmed so the new hinge bracket will fit to the rear wing spar correctly. (Refer to the Cessna 190 & 195 Parts Catalog.)

B. Install the aileron hinge brackets to the rear wing spar with the kept bolts and new MS20365-1032 Nuts, and torque each nut to 25 inch-pounds.

10. Install the ailerons on the wings. (Refer to the Cessna 190 & 195 Operation Manual, Maintenance - Ailerons.)

A. Install the aileron attach bolts kept in Step 5B(1) to the inboard aileron hinge brackets on each wing with new MS20365-428 Nuts and torque to 70 inch-pounds. (Refer to the Cessna 190 & 195 Parts Catalog.)

B. Attach the aileron pushrod to each aileron with the bolt and washers kept in Step 5A(1) and with one new MS20365-1032 Nut torqued to 25 inch-pounds. (Refer to the Cessna 190 & 195 Parts Catalog.)

11. Check and adjust each aileron range of travel as necessary. (Refer to the Cessna 190 & 195 Operation Manual, Maintenance - Ailerons.)

NOTE: The specified up range of travel is 25° and the down range of travel is 25°.

NOTE: Refer to the record of aileron travel you recorded in Step 4.

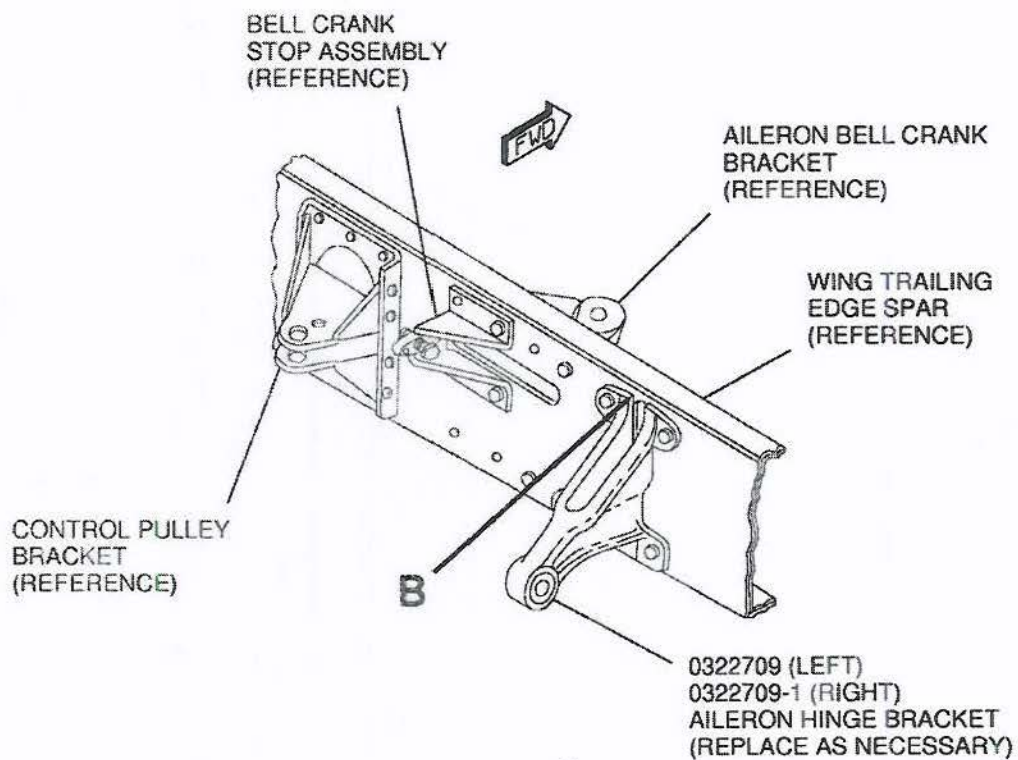
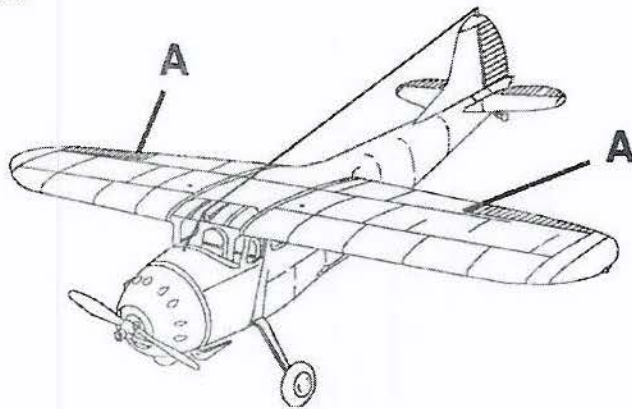
12. Make sure the turnbuckles are safetied after adjustments are completed.

13. Remove maintenance warning tags from the battery and the external power receptacle.

14. Connect the airplane battery and install the battery access panel. (Refer to the Cessna 190 & 195 Parts Catalog.)

15. Make an entry in the airplane logbook that states compliance and method of compliance of this Service Bulletin and if applicable, when the next inspection of the inboard aileron hinge brackets is due.

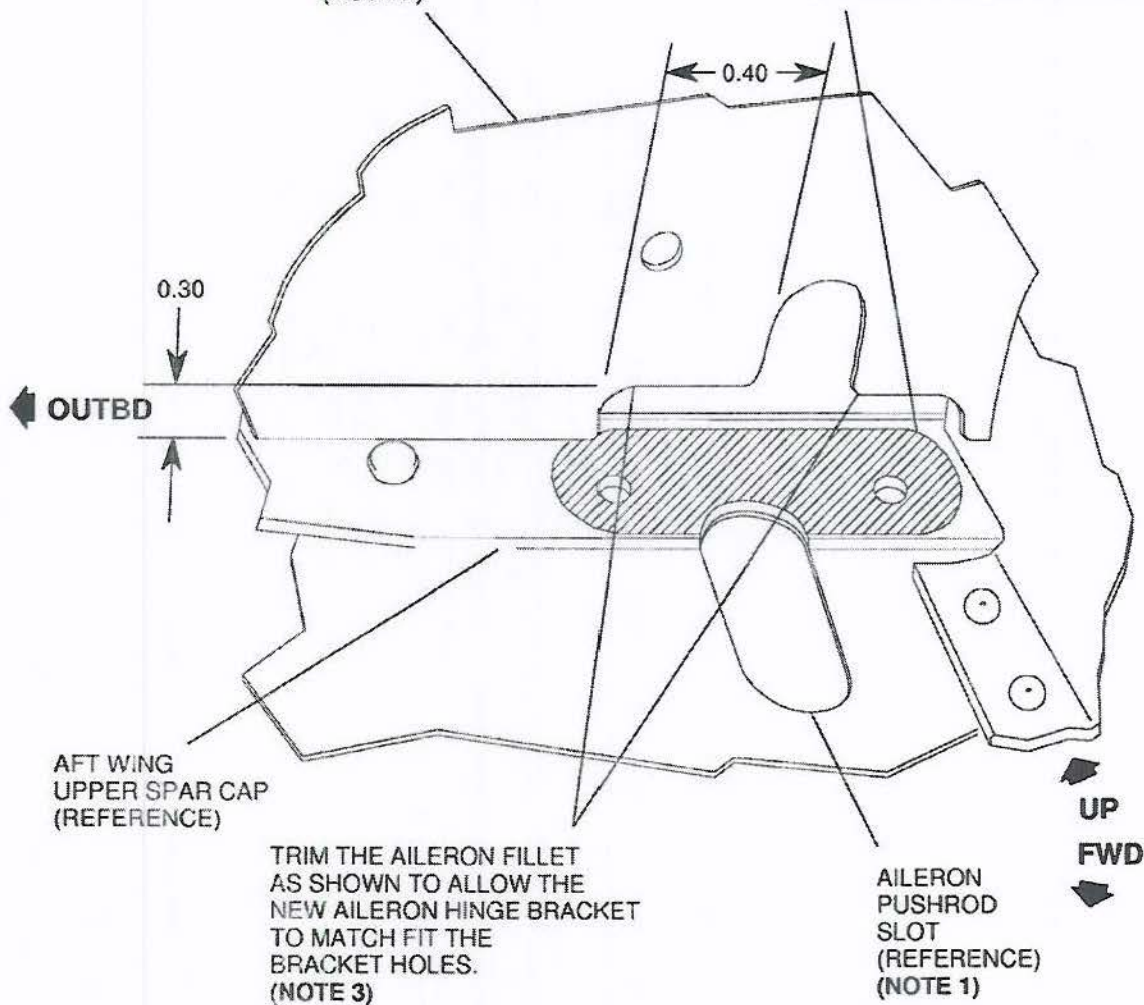
NOTE: This information shall be considered an amendment to the Cessna Manufacturer's Service/Maintenance Manual, Operation Manual or Instructions for continued airworthiness and must be accomplished for ongoing airworthiness compliance as required per 14 CFR Part 43.13.



DETAIL A
RIGHT WING SHOWN
LEFT WING OPPOSITE

0410T1001
A0426T1001

Figure 1. (Sheet 1)



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