

F. Atlee Dodge Aircraft Services, LLC.

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INSTALLATION INSTRUCTIONS

for Installation of

Windshield V-Brace

on

Cessna 180, 180A and 180B

and

Cessna 170A and 170B Airplanes

Document Number: II-1001

REVISION HISTORY

Revision	Description	Date
IR	Original Issue	23 Jan 2017
A	Address need to use new bolts with anti-corrosion prevention compound. Ensure proper grip length	15 May 2017

For updated revisions of this document it is the owner/operators responsibility to contact F. Atlee Dodge Aircraft Services, LLC. through our website or directly at the numbers given above.



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1 Introduction

1.1 Model Applicability

This Installation Instruction (II) is intended to augment the information contained in the original aircraft maintenance manual or structural repair manual. Refer to AC 43.13-1B/2B for acceptable methods, techniques, and practices for inspection, repair, and alteration when there are no manufacturer repair or maintenance instructions.

This document is applicable to the following Make and Model aircraft once the STC is installed.

Cessna Model Numbers	TCDS	Certification Basis (per TCDS)	Comments
170A, 170B	A-799	170A: CAR 03 dtd Dec 15, 1946, as amended 170B: CAR 3 dtd Nov 01, 1949, as amended	None
180, 180A, 180B serial numbers 604,614, and 30000 through 50661 only	5A6	CAR 3 dtd Nov 01, 1949, as amended	None



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2 Modification Description

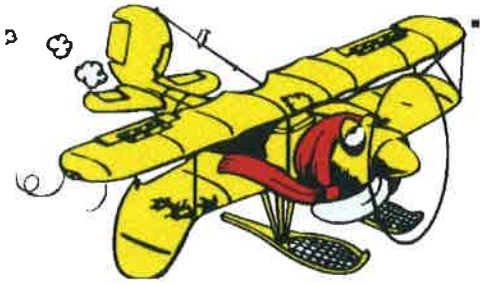
This STC approves the design and installation of a windshield V-brace for all Cessna 170A and 170B airplanes, as well as 180, 180A, and 180B airplanes s/n 604, 614, and 30000 through 50661. Windshield V-braces were not originally installed in the aircraft covered by this STC. This V-brace is very similar to the braces installed by the factory on later model 180 floatplanes (S/N 50662 and on) but differs in that it is a higher strength part. The windshield V-brace adds rigidity to the airframe which aids when operating on floats or rough terrain.

The brace consists of a welded stainless steel tube and plate structure that is bolted into the airframe on each side of the spar carry through and on the top of the instrument panel glare shield.

The Cessna 170 V-brace is shown below in figure 1. The Cessna 180 is similar.



Figure 1
Cessna 170 V-brace



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3 Installation

Prior to installation of the V-brace, it is assumed that the V-brace is in an airworthy condition and that the aircraft is in an airworthy condition to accept the V-brace.

INSTALLATION INSTRUCTIONS:

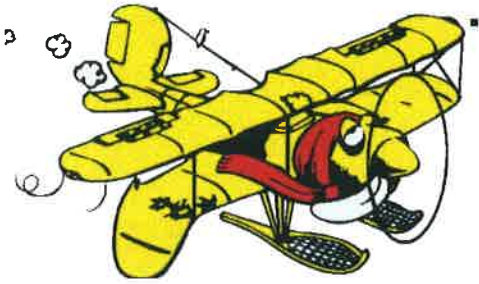
NOTE: These installation instructions are applicable for both the 180 V-Brace (180VBE) and the 170 V-Brace (170VB).

NOTE: Refer to Figure 2 on the following page for installation diagram.

NOTE: Due to the age of these aircraft, not all airframes are alike because of previous damage, hard landings, etc. Under no circumstance is it recommended to jack the aircraft, elongate holes, or force a V-Brace into place if for some reason the V-Brace does not fit. If the V-Brace does not fit, please contact F. Atlee Dodge.

NOTE: Use new bolts with anti-corrosion prevention compound. Ensure proper grip length per AC 43-13-1B, chapter 7, section 3.

1. Remove the headliner around the forward spar carry-through. Remove enough instruments and radios to be able to access the underside of the glare shield directly below the V-Brace mounting plate.
2. Place the V-Brace in the aircraft.
3. Remove (2) existing bolts on the upper forward spar carry-through, LH & RH sides to accept the upper attachments on the V-Brace.
4. With the head of the bolts on the aft side of the spar carry-through, install the correct length AN-3 bolts. Install and match the existing nuts and washers. Refer to Advisory Circular AC43-13-1B as a reference for acceptable practices and torques.
5. With the upper V-Brace attach bolts secure, the forward mounting plate will be flush on the glare shield panel. If any shimming greater than .063" is necessary for proper fit, contact F. Atlee Dodge.
6. Drill two 3/16 in. holes in the forward V-brace mounting plate at the locations pre-marked with a center punch. Once the holes are drilled in the mounting plate, match drill through panel from mounting plate at three locations.



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7. Attach the forward mounting plate to the glare shield panel using (1) *W*' AN-4 bolt and MS21045-4 nut in the center hole, and (2) 3/16" AN-3 bolts with MS21045-3 nuts and large area washers on each side of the mount plate. Refer to Advisory Circular AC43.13-1b for acceptable practices and torque procedures.

8. Reinstall the headliner around the forward spar carry-through and the instrument panel in the aircraft.

9. Make the log book entry, complete FAA Form 337, and update the weight and balance and equipment list records. Installer to determine the CG location as installed.

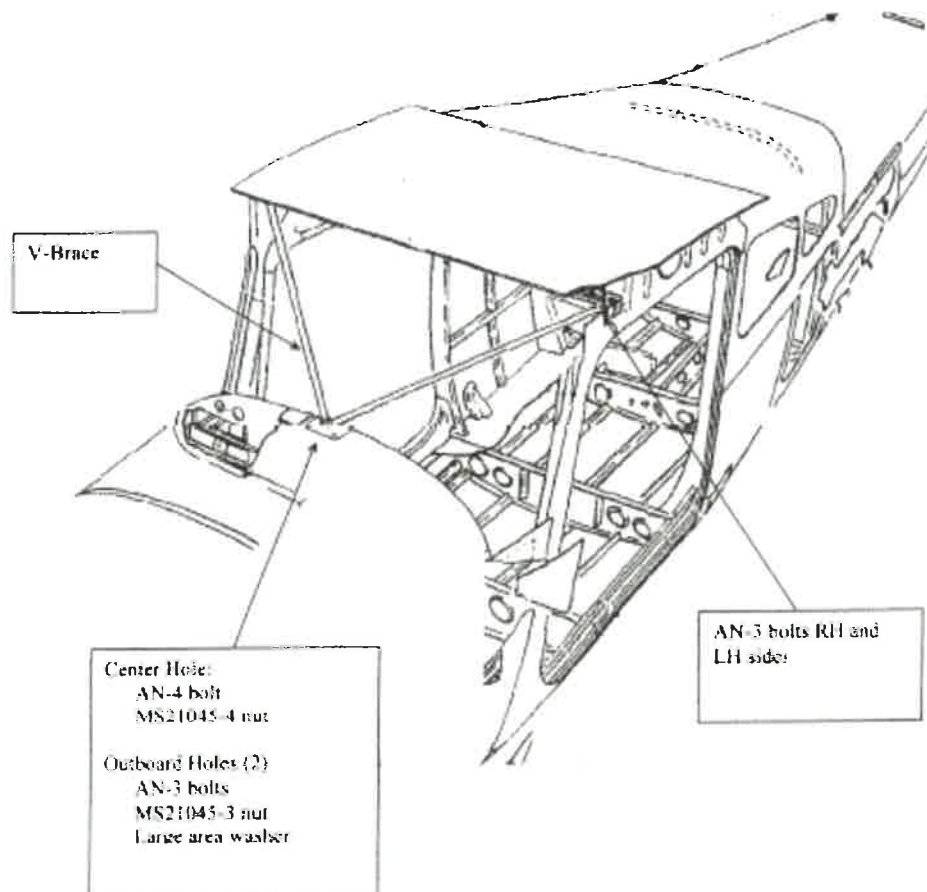


Figure 2
Typical Installation



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4 Weight & Balance

The weight of the V-Brace is 2.3 lbs, less the hardware.

-----END-----



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INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

for Installation of

Windshield V-Brace

on

Cessna 180, 180A and 180B

and

Cessna 170A, and 170B Airplanes

RETAIN THIS DOCUMENT WITH THE AIRCRAFT RECORDS

Document Number: ICA-1001

REVISION HISTORY

Revision	Description	Date
IR	Initial Release (IR)	23 Jan 2017

For updated revisions of this document it is the owner/operators responsibility to contact F. Atlee Dodge Aircraft Services, LLC. through our website or directly at the numbers given above.

This document meets the requirements of 14 CFR 23.1529 (Appendix G). Additionally it is found acceptable to the FAA AEG in accordance with the guidelines outlined in FAA Order 8110.54.

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1 Model Applicability

The data presented in this Instruction for Continued Airworthiness (ICA) is intended to augment the information contained in the original aircraft maintenance manual or structural repair manual. Additional information on acceptable methods, techniques, and practices for inspection, repair, and alteration can be obtained from a current version of FAA Advisory Circular (AC) 43.13-1B/2B.

This document is applicable to the following Make and Model aircraft once the STC is installed.

Cessna Model Numbers	TCDS	Certification Basis (per TCDS)	Comments
170A, 170B	A-799	170A: CAR 03 dtd Dec 15, 1946, as amended 170B: CAR 3 dtd Nov 01, 1949, as amended	None
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2 Modification Description

This STC approves the design and installation of a windshield V-brace for all Cessna 170A and 170B airplanes, as well as 180, 180A, and 180B airplanes s/n 604, 614, and 30000 through 50661. Windshield V-braces were not originally installed in the aircraft covered by this STC. This V-brace is very similar to the braces installed by the factory on later model 180 floatplanes (S/N 50662 and on) but differs in that it is a higher strength part. The windshield V-brace adds rigidity to the airframe which aids when operating on floats or rough terrain.

The brace consists of a welded stainless steel tube and plate structure that is bolted into the airframe on each side of the spar carry through and on the top of the instrument panel glare shield.

2.1 Illustrated Parts

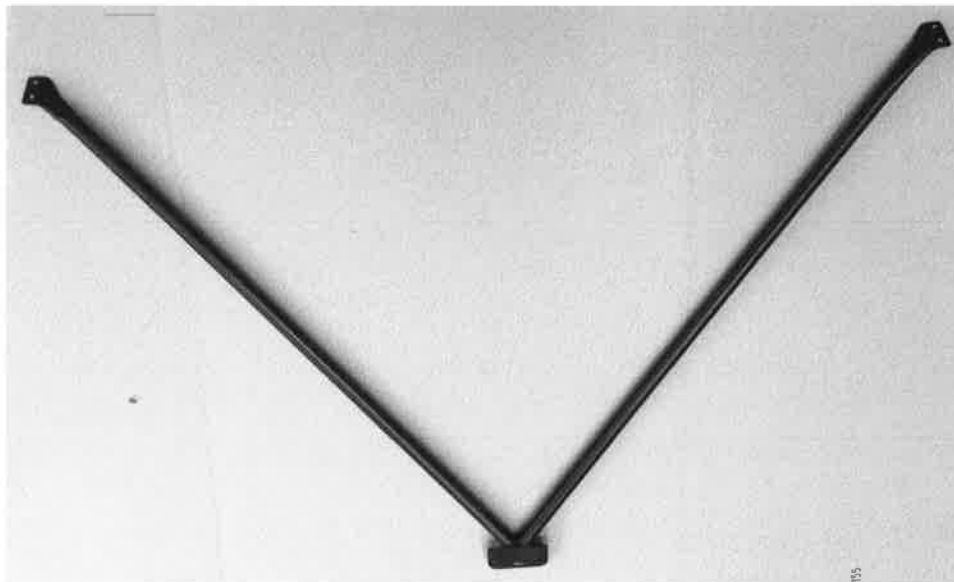


Figure 1
Cessna V-brace

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3 Installation

Prior to installation of the V-brace, it is assumed that the V-brace is in an airworthy condition and that the aircraft is in an airworthy condition to accept the V-brace.

INSTALLATION INSTRUCTIONS:

1. For installation procedures of the V-brace, refer to II-1001.

4 Maintenance Instructions

If repairs are required to the windshield V-brace, contact F. Atlee Dodge Aircraft Services, LLC by telephone at 907-344-1755.

4.1 Inspection Requirement

The windshield V-brace should be inspected, for wear, cracks at the mounting plates, damage or deformation on a 100HR/annual or progressive basis in accordance with the applicable maintenance manual and replace hardware as required.

5 Airworthiness Limitations

The Airworthiness Limitations Section is FAA approved and specifies maintenance required under Secs. 43.16 and 91.403 of the Federal Aviation Regulations unless an alternate program has been FAA approved.

No additional airworthiness limitations have been imposed by this modification.

This modification does not affect the airworthiness section of the FAA Approved Maintenance Manual.

END

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