

TITLE

WINGS - ACCESS PANEL INSTALLATION FOR FORWARD SPAR

EFFECTIVITY

MODEL	SERIAL NUMBERS
402C	402C0001 thru 402C1020
414A	414A0001 thru 414A1212
421C	421C0001 thru 421C1807

REASON

Customers have requested an access panel to gain easy access to the forward spar for inspections.

DESCRIPTION

This service document provides parts and instructions to trim the lower skin and install an access panel on the wings.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

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.

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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.

APPROVAL

Textron Aviation received FAA approval for the technical data in this publication that changes the airplane type design.

FLIGHT CREW OPERATIONS

No Changes

December 20, 2017

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

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CONSUMABLE MATERIAL

You must use the consumable materials that follow, or their equivalent, to complete this service document.

NAME	NUMBER	MANUFACTURER	USE
Color Chemical Film	U074093	Textron Aviation Parts Distribution 7121 Southwest Boulevard Wichita, KS 67215	To protect bare material for final finish.
Corrosion Resistant Primer	K000574	Textron Aviation Parts Distribution	Final finish for aluminum.

TOOLING

No specialized tooling is required to complete this service document.

WEIGHT AND BALANCE INFORMATION

Negligible

REFERENCES

Cessna Model 402C (1979-1985) Maintenance Manual

Cessna Model 414/414A (1970-1985) Service Manual

Cessna Model 421C (1976-1985) Service Manual

NOTE: To make sure all publications used are complete and current. Refer to www.txtavsupport.com.

PUBLICATIONS AFFECTED

None

ACCOMPLISHMENT INSTRUCTIONS

1. Prepare the airplane for maintenance.
 - A. Make sure that the airplane is electrically grounded.
 - B. Make sure that all switches are in the OFF/NORM position.
 - C. Disconnect electrical power from the airplane.
 - (1) Disconnect the airplane battery.
 - (2) Disconnect external electrical power.
 - D. Attach maintenance warning tags to the battery and external power receptacle that have **"DO NOT CONNECT ELECTRICAL POWER - MAINTENANCE IN PROGRESS"** written on them.
2. (If 592031-10 Panels are not purchased.) (Refer to Figure 1, Detail B.) Fabricate the access panels.
 - A. Cut out two 7.00 inch by 8.00 inch rectangles from the S3806-11 Sheet Material or ALCLAD 2024-T3.
 - B. Radius the corners 0.25 inch.
 - C. Identify one surface on each of the panels as UP.
 - D. Roll or crimp the outer 0.25 inch of the panel upward 6° around the perimeter.
 - E. Protect the fabricated panels with U074093 Color Chemical Film and K000574 Corrosion Resistant Primer.
3. (If 5292031-19 Nutplate Strips are not purchased.) (Refer to Figure 1, Detail C.) Fabricate the nutplate strips.
 - A. Cut out two 6.25 inch by 0.65 inch rectangles from the S3806-11 Sheet Material.
 - B. Drill three equally spaced 0.162 Inch-Diameter Holes in each strip.

- C. Match drill the six 0.098 Inch-Diameter Holes for the MS20426AD3-4A Rivets in each strip.
- D. Protect the strips with U074093 Color Chemical Film and K000574 Corrosion Resistant Primer.
- E. Install three MS21075L06N Nutplates with six MS20426AD3-4A Rivets in each strip.

4. (Refer to Figure 1, Detail A.) Make the cutout in the lower right wing skin.

NOTE: The cutout dimension is identified in Figure 1 Detail A.

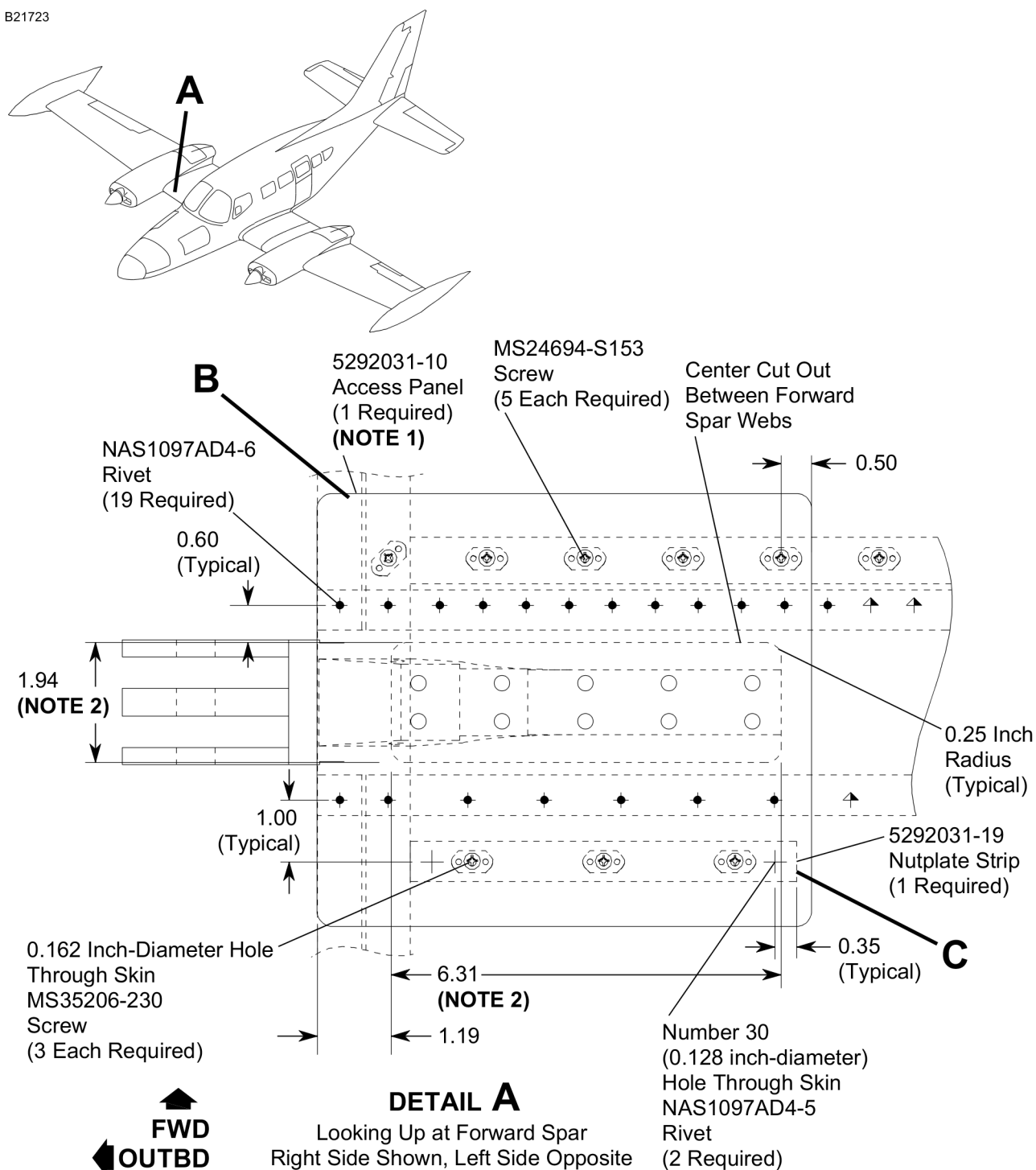
- A. Identify the area to cut the lower wing skin between the engine and fuselage inboard of the rib.
- B. Put the 5292031-10 (or fabricated) Access Panel into position and trace the outline on the lower wing skin.
- C. Remove the rivets that are inside the traced panel outline.
- D. Countersink the holes where the rivets were removed 100° x 0.190 inch-diameter.
- E. Insert a piece of scrap stainless steel between the lower wing skin and the lower forward spar cap

WARNING: Do not damage the forward spar when making the cutout in the lower wing skin. Any damage to the forward spar will likely require spar, spar cap, or spar fitting replacement. Premature cracking may occur if damage to the spar, spar cap, or spar fitting is not noticed. Mechanics should use great care and caution when making this cutout. Every effort must be made to protect the spar, spar cap, and spar fitting from damage.

- F. Make the cutout in the lower wing skin at the identified area.
 - G. Deburr the cutout.
 - H. Remove the scrap stainless steel.
 - I. Protect the edges of the cutout with U074093 Color Chemical Film and K000574 Corrosion Resistant Primer.
5. (Refer to Figure 1, Detail A.) Install the nutplate strip on the right wing.
- A. Put the 5292031-19 (or fabricated) Nutplate Strip into position and identify the hole locations.
 - B. Drill two Number 30 (0.128 inch-diameter) holes in the lower wing skin and 5292031-19 (or fabricated) Nutplate Strip.
 - C. Match drill three 0.162 inch-diameter holes in the lower wing skin that align with the nutplates on the 5292031-19 (or fabricated) Nutplate Strip.
 - D. Remove the 5292031-19 (or fabricated) Nutplate Strip.
 - E. Deburr the drilled holes.
 - F. Countersink the Number 30 (0.128 inch-diameter) holes 100° x 0.190 inch-diameter.
 - G. Protect all bare material with U074093 Color Chemical Film and K000574 Corrosion Resistant Primer.
 - H. Install one 5292031-19 (or fabricated) Nutplate Strip with two NAS1097AD4-5 Rivets.
6. (Refer to Figure 1, Detail A.) Install 19 NAS1097AD4-6 Rivets to attach the skin to the wing structure on the right wing.
7. (Refer to Figure 1, Detail A.) Install the access panel on the right wing.
- A. Put the 5292031-10 or fabricated Access Panel into position and identify the hole locations.
- NOTE:** Make sure that the crimped surface of the panel contacts the lower wing skin.
- B. Match drill three Number 27 (0.144 inch-diameter) holes in the aft portion of the 5292031-10 or fabricated Access Panel that align with the nutplates.

- C. Match drill five Number 10 (0.193 inch-diameter) holes in the forward portion of the 5292031-10 or fabricated Access Panel that align with the nutplates.
 - D. Deburr the drilled holes.
 - E. Dimple five Number 10 (0.193 inch-diameter) holes at 100°.
 - F. Enlarge the existing countersinks in the wing skin if necessary to allow the 5292031-10 (or fabricated) Access Panel to sit flush.
 - G. Protect the 5292031-10 (or fabricated) Access Panel with U074093 Color Chemical Film and K000574 Corrosion Resistant Primer.
 - H. Paint the 5292031-10 (or fabricated) Access Panel the same color as the lower surface of the wing.
 - I. Install the 5292031-10 (or fabricated) Access Panel with three MS35206-230 Screws and five MS24694-S153 Screws.
- 8. Do this modification again for the left wing.
 - 9. Remove the maintenance warning tags and connect the airplane battery.
 - 10. Make an entry in the airplane logbook that states compliance and method of compliance with this service document.

B21723



NOTE 1: All Dimensions are shown in inches.

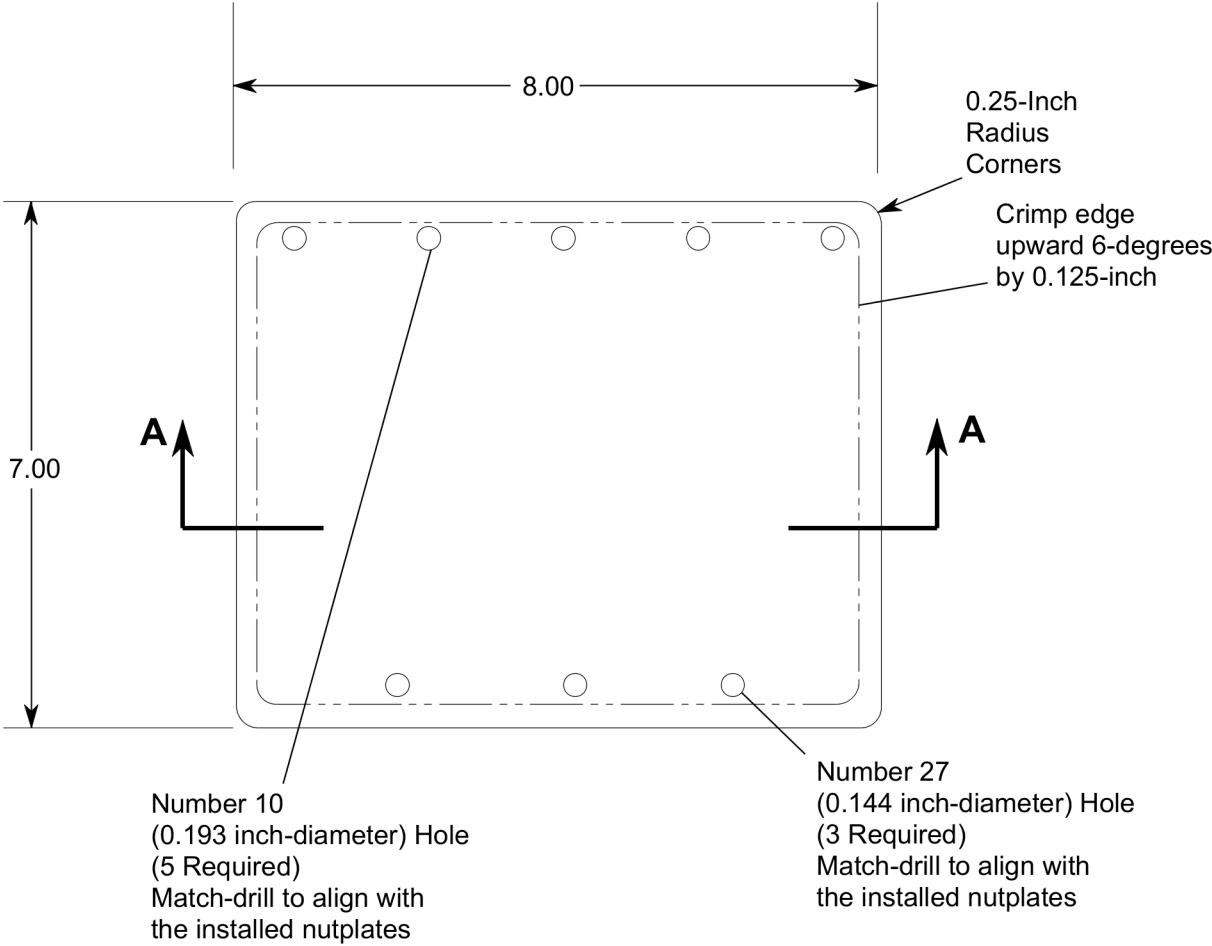
NOTE 2: Dimension is for cutting out a section of the lower skin.

NOTE 3: Model 402 shown for illustrative purposes, other models are similar.

5910T3001
5292031

Figure 1. Access Panel Installation For Forward Spar (Sheet 1)

B21724



DETAIL B

5292031-10 Access Panel
Fabricate from S3806-11
(0.05-Inch Alclad 2024-T3)

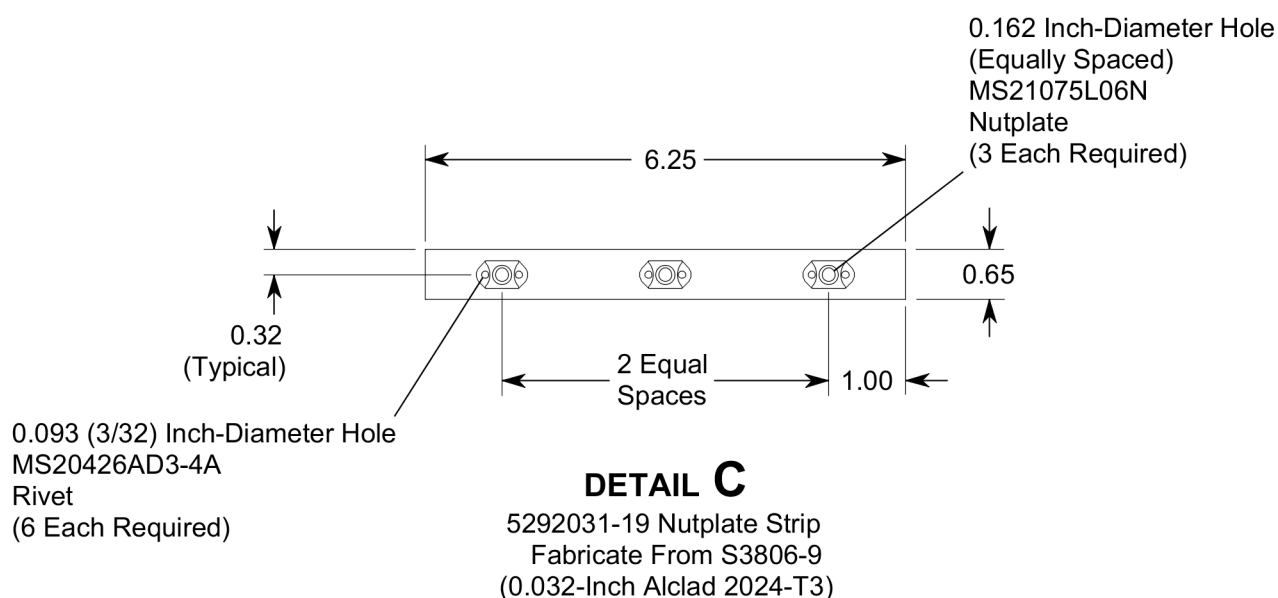


VIEW A-A

B529T3021
AA529T3021

Figure 1. Access Panel Installation For Forward Spar (Sheet 2)

B21725



NOTE : All Dimensions are shown in inches.

5910T3001
5291031

Figure 1. Access Panel Installation For Forward Spar (Sheet 3)

MATERIAL INFORMATION

Order the kit/parts below to install this modification.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
MEB-57-02	1	Kit , consisting of the following parts:		
MS24694-S153	10	Screw	Same	
MS35206-230	6	Screw	None	
NAS1097AD4-5	4	Rivet	None	
NAS1097AD4-6	38	Rivet	MS20470AD4-6	
MEB-57-02	1	Instructions		

The part that follows is required to complete this modification.

NEW P/N	QUANTITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
5292031-10	2	Access Panel	None	
5292031-19	2	Nutplate Strip	None	

If 5292032-4 Access Panels are not available, the part that follows can be used to fabricate two 5292032-4 Access Panels.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
S3806-11	1	Sheet Material	None	Optional to fabricate access panel

If 5292031-19 Nutplate Strips are not available, in addition to the S3806-11 Sheet Material, the parts that follows can be used to fabricate two 5292031-19 Nutplate Strips.

NEW P/N	QUAN- TITY	KEY WORD	OLD P/N	INSTRUCTIONS/ DISPOSITION
MS20426AD3-4A	12	Rivet	None	Optional to fabricate nutplate strip
MS21075L06N	6	Nutplate	None	Optional to fabricate nutplate strip
S3806-9	1	Sheet Material	None	Optional to fabricate nutplate strip

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

TITLE

WINGS - ACCESS PANEL INSTALLATION FOR FORWARD SPAR

TO:

Cessna Model 402C, 414A, and 421C Aircraft Owner

REASON

Customers have requested an access panel to gain easy access to the forward spar for inspections.

COMPLIANCE

OPTIONAL. This service document can be accomplished at the discretion of the owner.

MATERIAL AVAILABILITY

No part are required to complete this service document.

PART NUMBER	AVAILABILITY	COST
MEB-57-02	*	*
MS20426AD3-4A	*	*
MS21075L06N	*	*
S3806-11	*	*
S3806-9	*	*
5292031-10	*	*
5292031-19	*	*

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

WARRANTY

None

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.

December 20, 2017

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