

P68 SERIES

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SERVICE BULLETIN No. 118

ENAC Approval No. 2003-1815/SVNA/ES dated 10/04/2003

This document is the English translation of the ENAC approved Italian original.

INFORMATION

SUBJECT: *INSTALLATION OF NEW DOOR HINGES*
P/Nos. 2.6255-1/-2/-3/-4.

1. GENERAL

1.1 AIRCRAFT AFFECTED

- a) *Application of this entire Service Bulletin (Ref. Parts A and B of Paragraph 2.):*
All P68 Series aircraft up to and including S/N 400;
- b) *Application of Part B in paragraph 2 only:*
All P68 Series aircraft from S/N 401 inclusive onwards.

1.2 PURPOSE

The purpose of this Service Bulletin is:

- a) ***Ref. Part A of Paragraph 2.***
To supply instructions for the replacement of the existing door hinges, no longer available, with new hinges in accordance with the latest configuration of the P68 Series aircraft manufactured by Vulcanair.

1. GENERAL (Cont.)

1.2 PURPOSE (Cont.)

b) Ref. Part B of Paragraph 2.

To supply instructions for updating the Aircraft Parts Catalogue and the Aircraft Maintenance Manual for aircraft incorporating Part A of this Service Bulletin (Installation of new Door Hinges) and for affected aircraft manufactured by Vulcanair (Ref. paragraph 1.1b).

1.3 DESCRIPTION

The design of new door hinges providing a bearing as a pivot element, represents an improvement in the maintenance and the reliability of the hinge system, ensuring that the doors can be opened and closed without hindrance over a long period of time. Furthermore, no frequent greasing and/or replacement of parts subject to wear, are required.

The installation of the new door hinges requires the complete removal of the existing hinge elements and simple mechanical adjustments to be carried out on the fuselage structure and on the door.

1.4 COMPLIANCE

At owner's discretion.

1.5 TIME REQUIRED

The time necessary for the application of this Service Bulletin, including the time required to access the parts and return the aircraft to an airworthy condition, is estimated as being the following:

- 20 man-hours for installation of the Kit SB118/1;
- 30 man-hours for installation of the Kit SB118/2.

1.6 SPECIAL TOOLS

No special tools are required.

1.7 VARIATION IN WEIGHT & BALANCE

Not Applicable.

1.8 ELECTRICAL SYSTEM LOAD

Not Applicable.

1.9 REFERENCE DOCUMENTS

Applicable Maintenance Manual for Aircraft Type.

1.10 PUBLICATIONS AFFECTED

Applicable Maintenance Manual for Aircraft Type.

1.11 APPLICATION TO BE CARRIED OUT BY

Certified Maintenance Facility.

2. WORK PROCEDURE

PART A

Installation of New door hinges

Foreword:

In order to ensure the correct alignment of the doors during their reinstallation, proceed as follows:

1. Remove the internal upholstery panels from the doors and fuselage areas concerned with the changes. Remove any upholstery panels from the doorframes;
2. Close the doors completely;
3. In the proximity of the two extremities of each of the four sides of the doors, note the gaps between the door and the doorframe. For every door manufacture eight shims, two per each side, to be positioned and temporarily blocked between the door and fuselage structure during the reinstallation phase. Mark each shim and make a similar mark on the corresponding section of the doorframe, to ensure a correct repositioning during the reinstallation process .

NOTE: Brush all reworked surfaces with Alodine 1200 (MIL-C-5541) and then with Epoxy Primer (MIL-P-23377).

Main Entrance Door (Ref. Fig. 1)

1. Unscrew the pivot bolts and remove the Main Entrance Door;
2. Where necessary, unrivet the internal structural skins to gain access to the areas concerned with the changes;
3. Unrivet and remove the hinge elements from the door and doorframe;
4. Plug the holes with rivets such as those previously removed. Ensure that the upper and lower door reinforcements P/N 2.6007-8 are installed.
5. Position the new upper and lower hinge elements on the centre line of the fixing rivets of the old hinges on the door. Align the forward attachment bolt of the new hinges with forward rivet line of the door structure frame as indicated in detail B of Figure 1;
6. Using the hinge elements as a template, mark the position of the holes and drill 3/16 inch diameter holes in the concerned area of the door;
7. Install the new hinge elements on the door using the bolts P/N AN3-3A and P/N AN3-4A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
8. Assemble the hinge elements of the doorframe on the hinge elements previously installed on the door, using the bolts P/N AN23-14A, the washers P/N NAS1149F0332P and nuts P/N MS21083N3. Torque to 41-45 in.-lbs;
9. Position the door in the doorframe and close it completely. Use the afore mentioned shims to centre the door correctly;
10. Using the hinge elements of the doorframe as a template, mark the position of the holes and drill 3/16 inch diameter holes;

2. WORK PROCEDURE (Cont.)

PART A (Cont.)

Main Entrance Door (Cont.)

11. Install the new hinge elements on the doorframe using the bolts P/N AN3-3A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
12. Remove the shims used to centre the door;
13. Open and close the door a number of times to guarantee the proper functioning of the door release mechanism;
14. Using blind rivets AVEX 1661-0410, reinstall all previously removed internal structural skins;
15. Reinstall all internal upholstery panels previously removed from the door and door frame;

Baggage Door (Ref. Figs. 2 and 3)

(All P68 Victor aircraft from S/N 01 through S/N 14 are only affected by the following instructions if they have embodied the Partenavia Service Bulletin No. 02 “Enlarged Baggage Door”)

1. Unscrew the pivot bolts and remove the Baggage Door;
2. Where necessary, unrivet the internal structural skins to gain access to the areas concerned with the changes;
3. Create two slots by enlarging two of the existing holes on the forward stanchion of the baggage compartment doorframe as indicated in fig. 3;
4. Unrivet and remove the hinge elements from the door and doorframe;
5. Plug the holes with rivets such as those previously removed;
6. Position the new upper and lower hinge elements on the centre line of the fixing rivets of the old hinges on the fuselage doorframe. Align the attachment bolts of the new hinges with the rivet lines of fuselage frame number 9 see detail B in Figure 2.
7. Using the hinge elements as a template, mark the position of the holes and drill 3/16 inch diameter holes in the area concerned;
8. Install the new hinge elements on the fuselage doorframe using the bolts P/N AN3-5A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
9. Assemble the hinge elements of the door on the hinge elements previously installed on the fuselage doorframe, using the bolts P/N AN23-14A, the washers P/N NAS1149F0332P and nuts P/N MS21083N3. Torque to 41-45 in.-lbs;
10. Position the door in the doorframe and close it completely. Use the afore mentioned shims to centre the door correctly;
11. Using the hinge elements of the door as a template, mark the position of the holes and drill 3/16 inch diameter holes;
12. Install the new hinge elements on the door using the bolts P/N AN3-3A and P/N AN3-4A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
13. Remove the shims used to centre the door;
14. Open and close the door a number of times to guarantee the proper functioning of the door release mechanism;

2. WORK PROCEDURE (Cont.)

PART A (Cont.)

Baggage Door (Cont.)

15. Using blind rivets AVEX 1661-0410, reinstall all previously removed internal structural skins;
16. Reinstall all internal upholstery panels previously removed from the door and doorframe;

Crew Door (Ref. Fig. 4)

(Applicable only for P68C and P68C-TC Series aircraft equipped with a crew door)

1. Unscrew the pivot bolts and remove Crew Door;
2. Where necessary, unrivet the internal structural skins to gain access to the areas concerned with the changes;
3. Unrivet and remove the hinge elements from the door and doorframe;
4. Plug the holes with rivets such as those previously removed;
5. Position the new upper and lower hinge elements on the centre line of the fixing rivets of the old hinges on the door. Align the forward attachment bolt of the new hinges with the forward rivet line of the doorframe;
6. Using the hinge elements as a template, mark the position of the holes and drill 3/16 inch diameter holes in the concerned area of the door;
7. Install the new hinge elements on the door using the bolts P/N AN3-3A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
8. Assemble the hinge elements of the doorframe on the hinge elements previously installed on the door, using the bolts P/N AN23-14A, the washers P/N NAS1149F0332P and nuts P/N MS21083N3. Torque to 41-45 in.-lbs;
9. Position the door in the door frame and close it completely. Use the afore mentioned shims to centre the door correctly;
10. Using the hinge elements of the doorframe as a template, mark the position of the holes and drill 3/16 inch diameter holes;
11. Install the new hinge elements on the doorframe using the bolts P/N AN3-3A, the lock washers P/N MS35335-32 and the flat washers P/N NAS1149F0332P. Torque to 41-45 in.-lbs;
12. Remove the shims used to centre the door;
13. Open and close the door a number of times to guarantee the proper functioning of the door release mechanism;
14. Using blind rivets AVEX 1661-0410, reinstall all previously removed internal structural skins;
15. Reinstall all internal upholstery panels previously removed from the door and doorframe;

Updating Aircraft Log-Book

Record compliance with Part A of this Service Bulletin in the aircraft Log-Book.

2. WORK PROCEDURE (Cont.)

PART B

Parts Catalogue and Maintenance Manual Update

Applicable for aircraft which embody Part A of this Service Bulletin and for affected aircraft manufactured by Vulcanair (Ref. Paragraph 1.1b).

Parts Catalogue Update

Insert the figures 1, 2 and 4 of this Service Bulletin in the Aircraft Illustrated Parts Catalogue and retain until incorporated in the next revision issued by Vulcanair.

Maintenance Manual Update

Insert this Service Bulletin in the Aircraft Maintenance Manual and retain until incorporated in the next revision issued by Vulcanair.

The installation of new door hinges requires that, in addition to the actual ENAC approved Scheduled Maintenance Checks, the following inspection be carried out:

Item	Inspection time	Maintenance Instructions
CABIN DOORS	Every 100 Flight Hours	Check for condition all door hinge elements and for security of the hinge fixtures to the fuselage and door structure. Check for security of the pivot element installations.

3. MATERIALS REQUIRED FOR THE MODIFICATION

Kit SB118/1

Applicable for all P68 Series aircraft not equipped with a Crew Door

Item	P/N	Description	Q.ty
1	2.6255-1	Hinge Element Assy – Main Entrance Door, Baggage Door	3
2	2.6255-2	Hinge Element Assy – Baggage Door	1
3	2.6255-3	Hinge Element – Baggage Door	2
4	2.6255-4	Hinge Element – Main Entrance Door	2
5	AN3-3A	Bolt	8
6	AN3-4A	Bolt	4
7	AN3-5A	Bolt	4
8	MS35335-32	Washer – Lock	16
9	NAS1149F0332P	Washer – Flat	24
10	AN23-14A	Bolt	4
11	MS21083N3	Nut	4
12	1661-0410	Blind Rivet	200

Kit SB118/2

Applicable for all P68C and P68C-TC aircraft equipped with Crew Door

Item	P/N	Description	Q.ty
1	2.6255-1	Hinge Element Assy – Main Entrance Door, Baggage Door, Crew Door	5
2	2.6255-2	Hinge Element Assy – Baggage Door	1
3	2.6255-3	Hinge Element – Baggage Door	2
4	2.6255-4	Hinge Element – Main Entrance Door, Crew Door	4
5	AN3-3A	Bolt	16
6	AN3-4A	Bolt	4
7	AN3-5A	Bolt	4
8	MS35335-32	Washer - Lock	24
9	NAS1149F0332P	Washer - Flat	36
10	AN23-14A	Bolt	6
11	MS21083N3	Nut	4
12	1661-0410	Blind Rivet	250

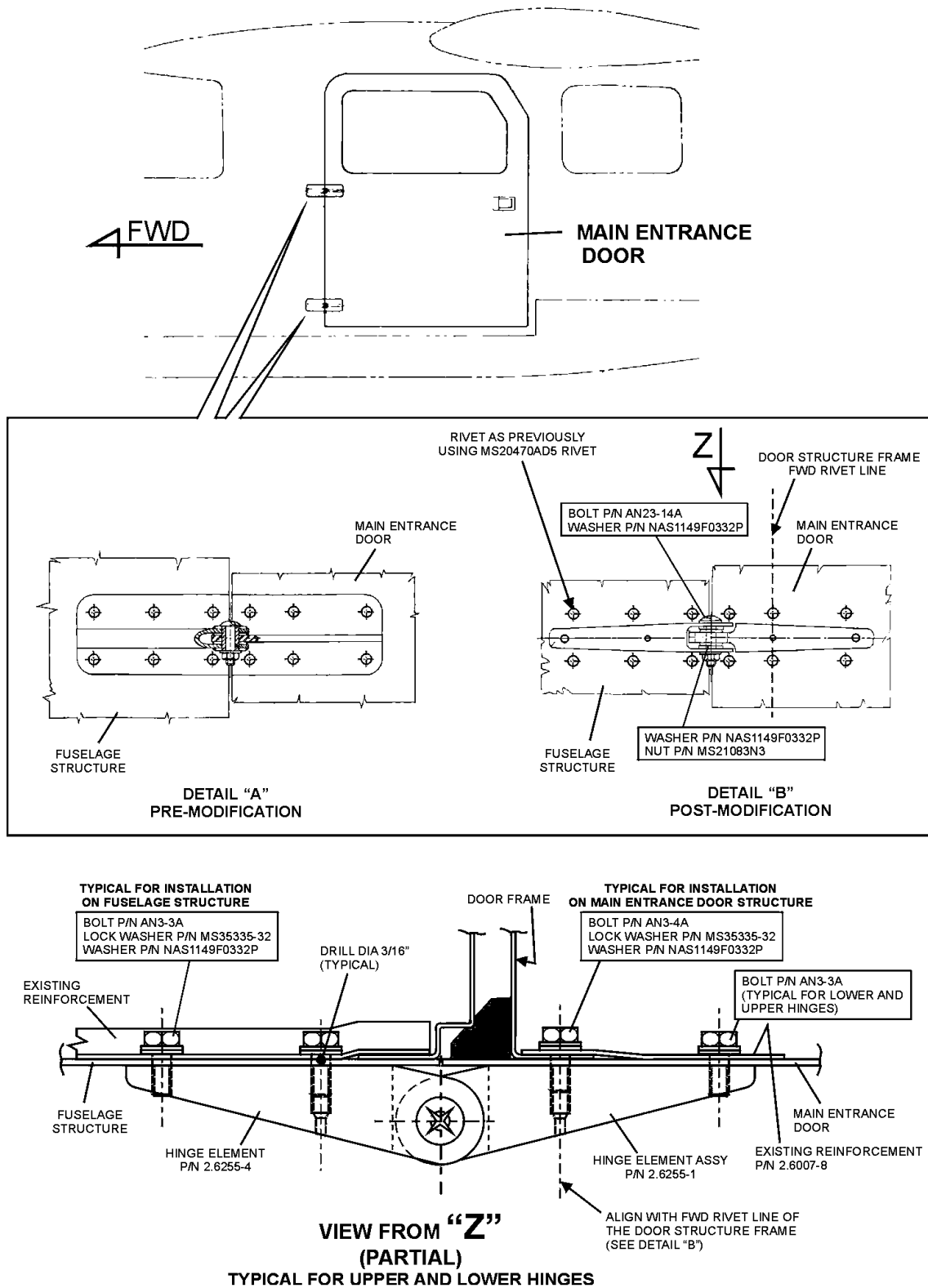
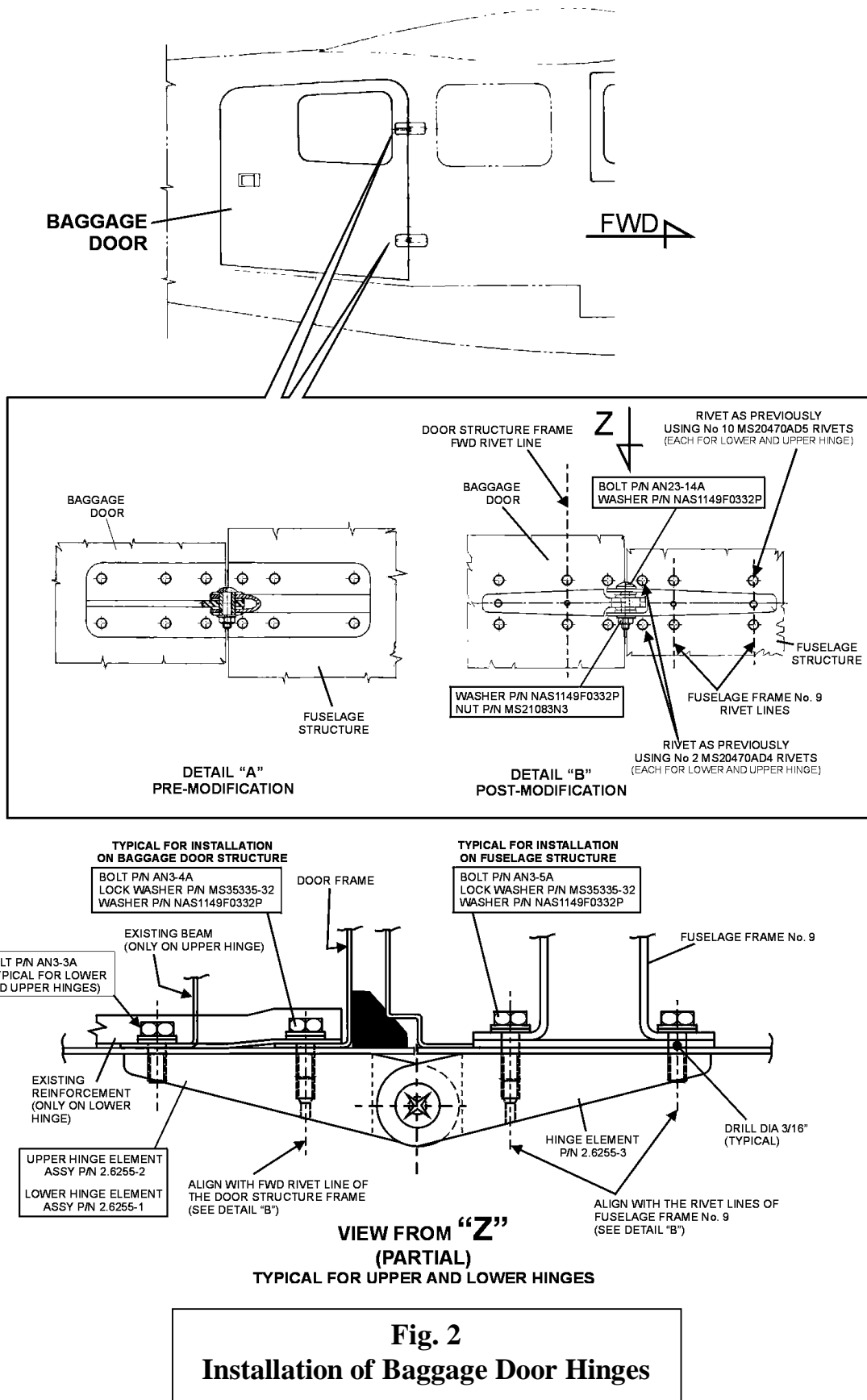


Fig. 1
Installation of Main Entrance Door Hinges



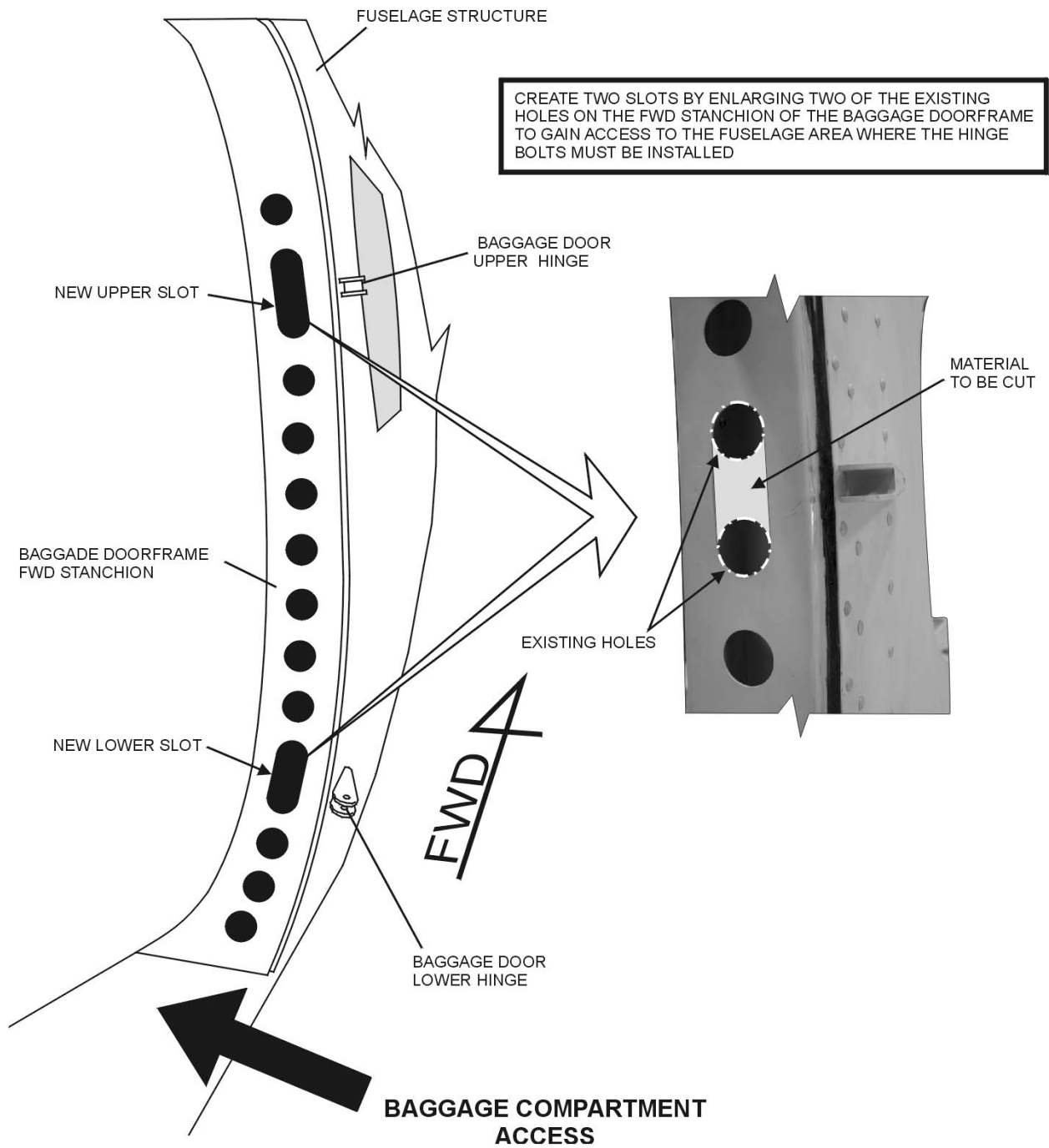


Fig. 3
Installation of Baggage Door Hinges
- Baggage Doorframe FWD Stanchion Modification Scheme -

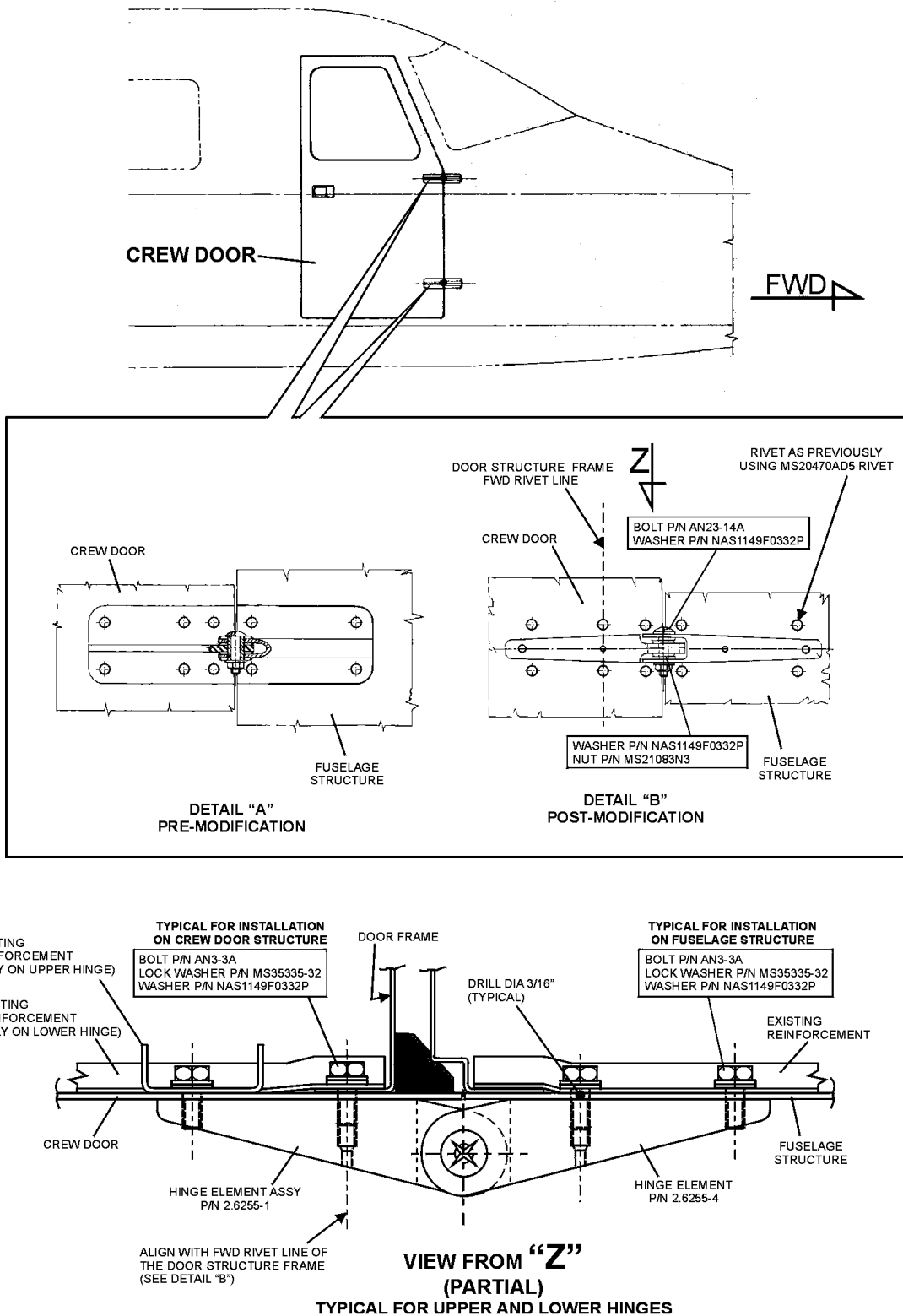


Fig. 4
Installation of Crew Door Hinges