




## **FUSELAGE FWD STEP, KIT, LHS INSTALLATION MAINTENANCE MANUAL SUPPLEMENT**

**MODELS: BELL 212, & 412**  
(STA SH94-45)

Read all of the Maintenance Manual Supplement  
thoroughly prior to performing any activities relating to this product

## General Notes

1. The following information defines the instructions for continuing airworthiness, repair allowances and airworthiness limitations for the item(s) referenced within this document.
2. Refer to the current revision of the BHT Maintenance Manual, BHT-212-MM, or BHT-412-MM, for the chapter(s) and section(s) referenced within this document.
3. Scheduled inspection for the item(s) referenced within this document shall be accomplished in accordance with (IAW) the Inspection Procedures specified.
4. Torque all fasteners IAW the tension type torque limits indicated in the current revision of FAA publication AC 43.13-1B, table 7-1 unless otherwise specified.
5. Repair allowances for the item(s) referenced within this document shall be accomplished IAW the Repair Procedures specified.
6. Limitations for the item(s) referenced within this document are IAW the Airworthiness Limitations specified.
7. If changes to this document are required, Alpine Aerotech LP shall revise all pages and reissue the entire document.
8. Alpine Aerotech LP shall make any subsequent revisions of this document available upon request.

 Not provided, procure locally.

## Weight & Balance

<u>Part Number</u>	<u>Description</u>	<u>Weight</u>	<u>Long. Arm</u>	<u>Lat. Arm</u>
AA-212-168-103A	FUSELAGE FORWARD STEP, KIT, LHS	3.95lbs* 1.79 (kg)	57.00 1.45 (m)	35.00 0.89 (m)

\* Total increase in weight to aircraft.

## Airworthiness Limitations

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

The Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

## **Supplement to applicable Maintenance Manual, Chapter 4, Airworthiness Limitations Schedule**

### Notes

1. Refer to the BHT-212-MM Maintenance Manual, Chapter 4, for general information on airworthiness limitations and airworthiness limitation schedules.
2. Refer to the BHT-412-MM Maintenance Manual, Chapter 4, for general information on airworthiness limitations and airworthiness limitation schedules.
3. Item(s) **not** listed in the Scheduled Airworthiness Limitations section within this document have an unlimited airworthiness life.

### Scheduled Airworthiness Limitations

1. There are no airworthiness limitations associated with the item(s) referenced within this document.

## Repair Procedures

1. Repairs to the item(s) referenced within this document are **not** permitted. Contact Alpine Aerotech LP for further information if repairs are required to the item(s) referenced within this document.

## **Inspection Procedures**

### **DAILY INSPECTION**

Check physical integrity and security of the step assembly to ensure that it is securely attached to the aircraft.

### **EVERY 100 HOURS OR IF DAMAGE IS DETECTED ON DAILY INSPECTION**

- Inspect for wear and/or damage.
- Replace damaged or worn parts as applicable.
- Ensure that the step is securely attached.

## **Installation Procedures**

1. Remove cover under co-pilot's seat Part # 212-030-250-001.
2. Drill out rivets at A and B (Reference Figures 1 & 2). Open up holes to #11 (Ø.191") drill diameter.
3. Attach the aluminum Support, Assy, LHS (Item 5) through pre-drilled hole at location A with bolt (Item 8), self-locking nut (Item 9) and washers (Item 7). Do not secure at this time.
4. Locate Step, Assy, LHS (Item 1) into existing upper hardpoint and aluminum Support, Assy, LHS (Item 5) with bolts (Item 3), self-locking nuts (Item 4) and washers (Item 2). (Reference Figure 3). Snug bolts lightly, do not secure at this time.
5. Spot drill a pilot hole in the aluminum Support, Assy, LHS (Item 5) at location B. Reference Figures 1 & 2.
6. Drill up to #11 diameter drill (Ø.191") through both the aluminum Support, Assy, LHS (Item 5) and the existing aircraft structure. Remove the Support, Assy, LHS (Item 5) and de-burr all holes.
7. Before attaching the Support, Assy, LHS (Item 5) onto the aircraft, ensure all holes are de-burred and faying surfaces are clean. Apply primer, epoxy, high solids (Item C02) to holes at A & B locations and allow to dry.
8. Apply sealant, fuel tank (Item C01) to faying surfaces of the Support, Assy, LHS (Item 5) and the aircraft skin. Secure Support, Assy, LHS (Item 5) into position using bolt (Item 8), self-locking nut (Item 9) and washers (Item 7) provided. Clean up any squeeze-out and create a small fillet of sealant, fuel tank (Item C01) around the perimeter of the Support, Assy, LHS.
9. Secure the Step, Assy, LHS (Item 1) to the existing upper hardpoint and the Support, Assy, LHS (Item 5) using bolts (Item 3), self-locking nuts (Item 4) and washers (Item 2).

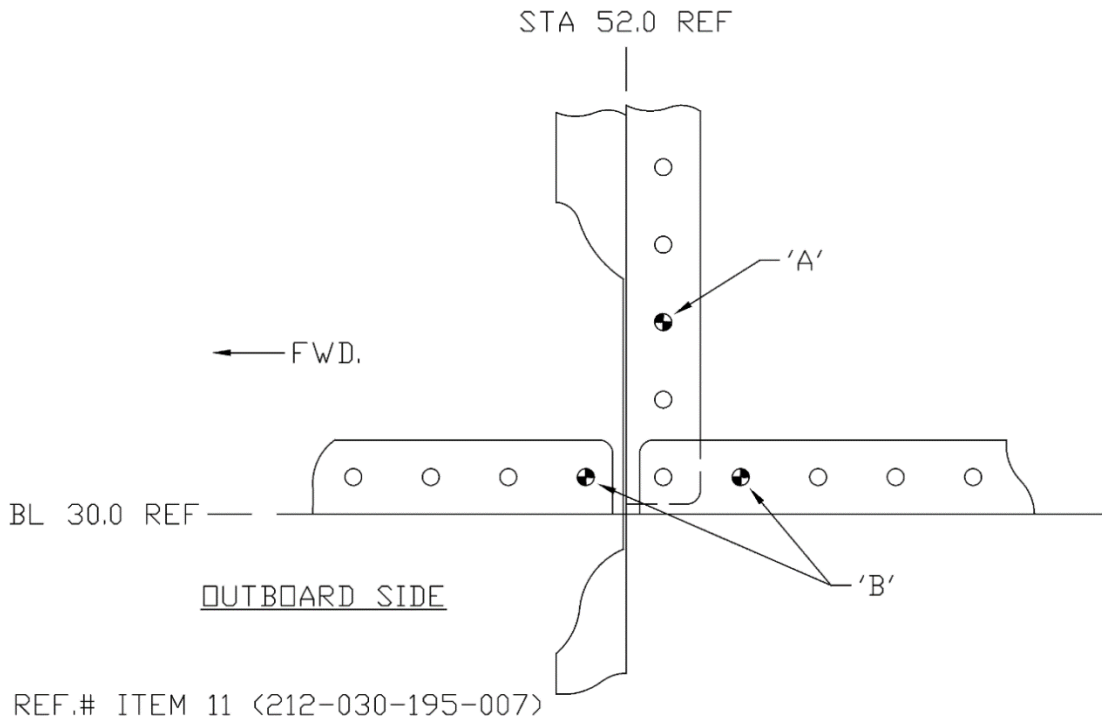
10. Install Strut, Assy (Item 6) to the welded tang on FWD INBD side of Step, Assy, LHS (Item 1) using bolts (Item 8), self-locking nuts (Item 9) and washers (Item 7). Reference Figure 4.

11. Position the opposite side of the Strut, Assy (Item 6) to FWD face of existing lower hardpoint (205-031-209-003) Reference Figure 4 & 5. Clamp in place and transfer the hole from the hardpoint into the tang using a letter "O" diameter drill ( $\varnothing .316$ ”).

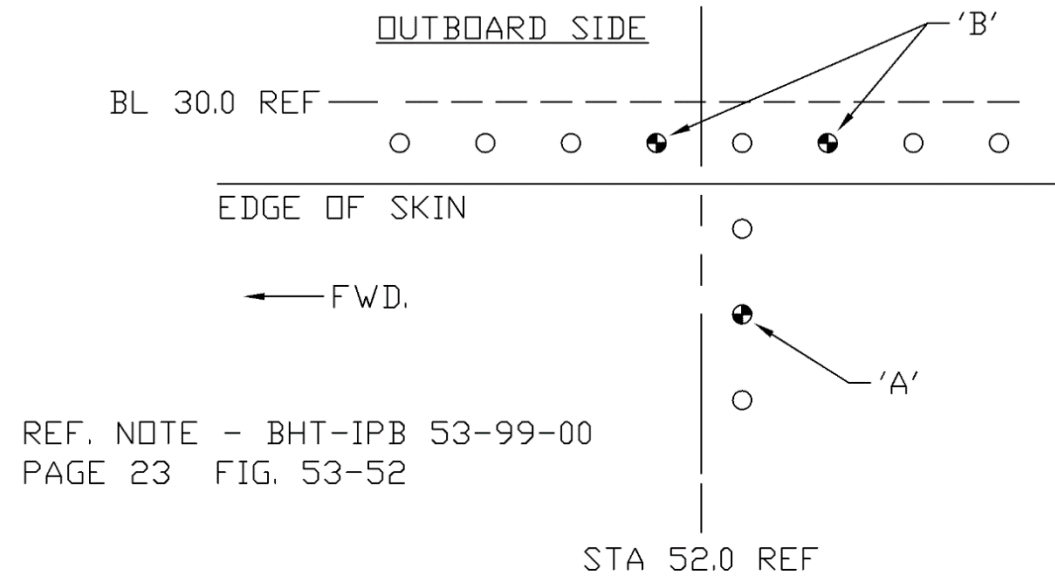
**NOTE:** Mark hole location first and confirm sufficient edge distance before drilling. Remove and de-burr. Apply primer, epoxy, high solids (Item C02) to inside of holes and allow to dry.

12. Relocate Strut, Assy (Item 6), secure and position using bolt (Item 10), self-locking nut (Item 4) and washers (Item 3) supplied.

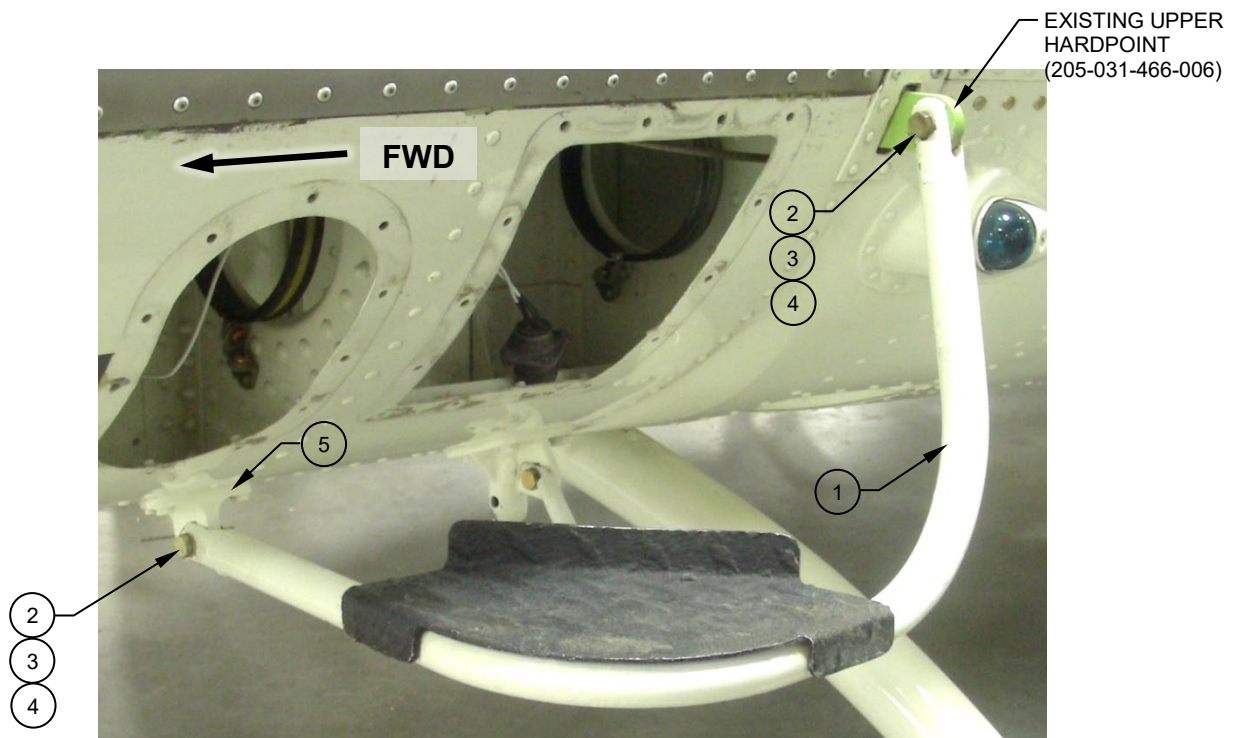
13. Check all fasteners are secure. Installation is complete. Update the aircraft logbook show the installation of the Fuselage Forward Step, Kit, LHS



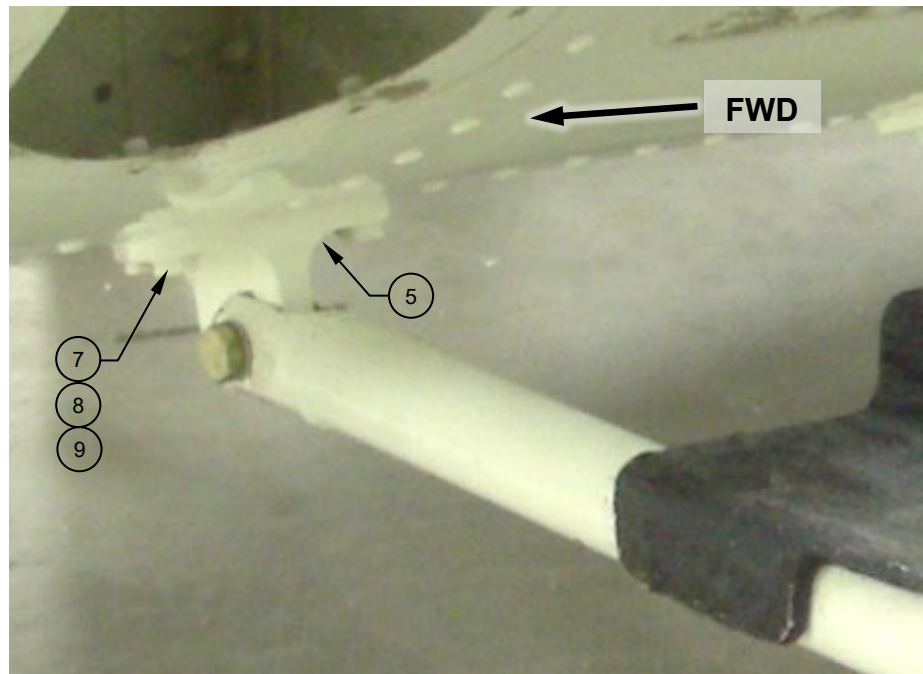
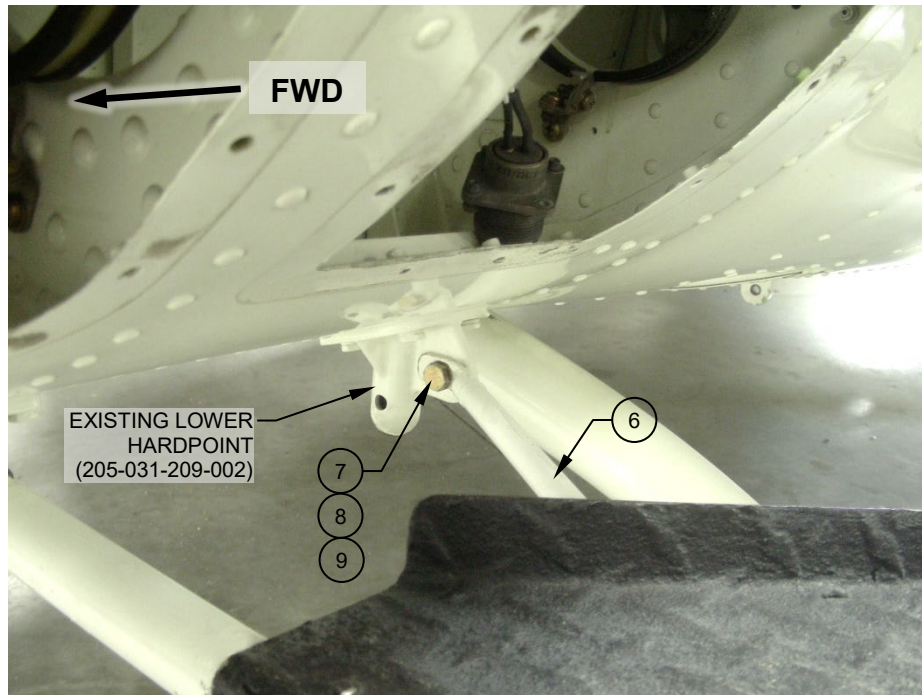
**Figure 1**  
LHS Installation Shown  
(View looking down into belly)



**Figure 2**  
LHS Installation Shown  
(View from ground looking up at belly)



**Figure 3**  
LHS installation shown



**Figure 5**  
LHS Installation Shown

## Installation Kit Components

ITEM	QTY	NUMBER	DESCRIPTION	MATERIAL	REF	STOCK SIZE	SPEC	FINISH	MANUFACTURER	NCAGEC
-	-	AA-212-168-103A	FUSELAGE FORWARD STEP, KIT, LHS	C/O SHADED ITEMS ONLY						
1	1	AA-212-168-001	STEP, ASSY, LHS	NA	NA	NA	NA	NA	ALPINE AEROTECH LP	L0171
2	6	NAS1149F0563P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
3	2	AN5-12A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
4	3	NAS9926-5L	NUT, SELF LOCKING	SEE SPEC	SEE SPEC	NAS9926	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
5	1	AA-212-168-310SA	SUPPORT, ASSY, LHS	NA	NA	NA	NA	NA	ALPINE AEROTECH LP	L0171
6	1	AA-212-168-309SA	STRUT, ASSY	NA	NA	NA	NA	NA	ALPINE AEROTECH LP	L0171
7	8	NAS1149F0363P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
8	4	AN3-6A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
9	4	NAS9926-3L	NUT, SELF-LOCKING	SEE SPEC	SEE SPEC	NAS9926	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
10	1	AN5-6A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SEE SPEC	SOURCE AS REQUIRED	NA
1	C01	AR	NA	SEALANT, FUEL TANK	PS 890 CLASS B	SEE MFR	AMS-S-8802	NA	PRC DESOTO INTERNATIONAL	83574
1	C01	AR	NA	SEALANT, FUEL TANK	CS 3204 CLASS B	SEE MFR	AMS-S-8803	NA	FLAMEMASTER CORPORATION	14439
1	C02	AR	NA	PRIMER, EPOXY, HIGH SOLIDS	TYPE1, CLASS C2	SEE SPEC	MIL-PFR-23377	NA	SOURCE AS REQUIRED	NA