

BEAR PAW, KIT INSTALLATION INSTRUCTIONS

MODELS: BELL 429

Read all of the Instructions for Continuing Airworthiness
thoroughly prior to performing any activities relating to this product



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Notes

1. If changes to this document are required, Alpine Aerotech LP shall revise all pages and reissue the entire document.
2. Alpine Aerotech LP shall make any subsequent revisions of this document available free of charge upon request. Alpine Aerotech LP also recommends that the end user of this product periodically verify the revision level of this document.



Section 1: Description

The following information provides a functional description of the Bear Paw, Kit as defined in Alpine Aerotech LP authority dataset AAL-490-010-001.

- In soft terrain landing situations where the skid tubes can sink into the landing area, e.g., tundra, snow and sand, balancing issues can occur and in rare cases the tail rotor can strike the ground.
- The Bear Paw, Kit when installed adds additional flotation to the skid gear aft of the C of G, thus keeping the balance point forward of the C of G.

Section 2: Installation & Removal Instructions

Weight & Balance

<u>Part Number</u>	<u>Description</u>	<u>Weight</u>	<u>Long. Arm</u>	<u>Lat. Arm</u>
AAL-490-010-001	Bear Paw, Kit †	21.71* 9.85 (Kg)	274.17 6.963 (m)	.00 .00 (m)
AAL-490-010-001	Bear Paw, Kit ‡	20.28* 9.20 (Kg)	274.73 6.978 (m)	.000 .00 (m)

† Applicable to installations with Grippers (Item 11) and associated hardware

‡ Applicable to installations without Grippers (Item 11) and associated hardware

* Total increase in weight to aircraft.

General Notes

1. All Installation Instructions shall be accomplished in accordance with (IAW) standard aircraft practices. Refer to the current revision of the FAA manuals AC 43.13-1B and AC 43.13-2B for details on standard aircraft practices.
2. Torque fasteners IAW the tension type torque limits indicated in the current revision of the FAA publication AC 43.13-1B, Table 7-1 plus tare torque, unless otherwise specified. Tare torque is defined as the amount of torque required to overcome the resistance of self-locking nuts against mating bolts or studs.
3. All Dimensions are in imperial measures (inches/pounds).
4. Refer to Section 1: Maintenance Manual Supplement for instructions on maintenance for the item(s) referenced within this section.
5. Refer to the Section 3: Illustrated Parts Breakdown for the part numbers of the item(s) referenced within this section.



Installation Notes

- △₁ Typical item number for all like items in this view unless otherwise specified.
- △₂ Align the center of the Cap, Assy (Item 5) with the center of the fastener row on the saddle, detail.
- △₃ Prior to final torque ensure that there is zero gap between the Bear Paw, Detail and the skid-tube.
- △₄ Apply Threadlocker (Item 15) to threads IAW manufacturer's recommendations (prior to torqueing fastener). Torque to 30-35 IN./LBS.
- △₅ Apply Torque Lacquer (Item 16) or equivalent, to Nut, Hex, Self-locking (Item 10) and Bolt, Round Head, Square Neck (Item 7) common to Strap, Assys only (Items 3 & 5) per manufacturer's recommendations.



Installation Instructions

NOTE: LHS installation shown, RHS opposite.

1. Install the Grippers (Item 11) and supplied hardware on the Bear Paw, Detail (Item 1) as shown. Ensure all serrated surfaces on the Grippers are facing down (serrations must be common to the ground). Ensure Threadlocker (Item 15) is applied (mandatory). Torque all Gripper fasteners IAW General Note 2. Reference Figure 1.

NOTE: Installation of Grippers (Item 11) and associated hardware is optional.

If Grippers are desired, all Grippers (6X) and associated hardware must be installed. Use applicable Weight & Balance data accordingly.

If Grippers are not desired, all Grippers (6X) and associated hardware must be removed. Use applicable Weight & Balance data accordingly.

CAUTION: Ensure Threadlocker (Item 15) is sufficiently applied to all Gripper fasteners. Omitting threadlocker is not acceptable and will create a non-airworthy installation.

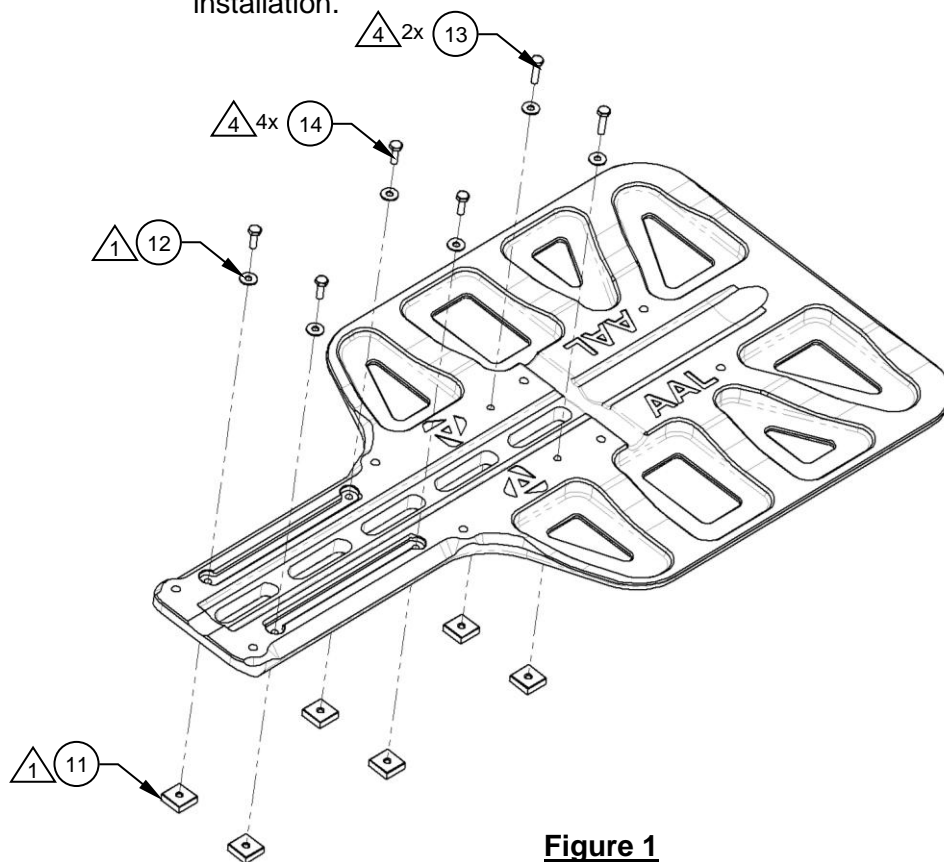


Figure 1
LHS Shown
RHS Opposite



Installation Instructions

2. Pre-install the supplied hardware as shown. Reference Figure 2.

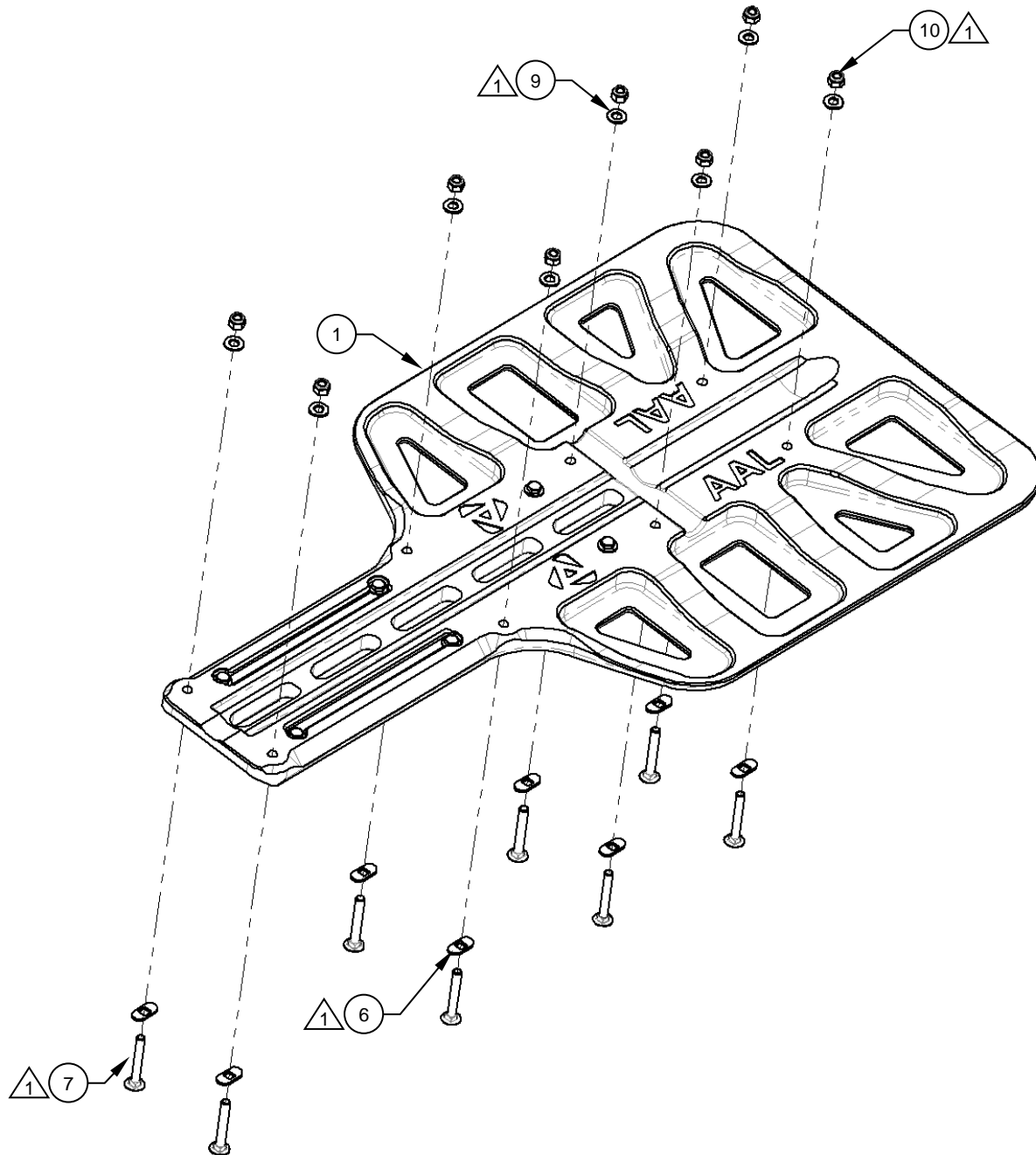
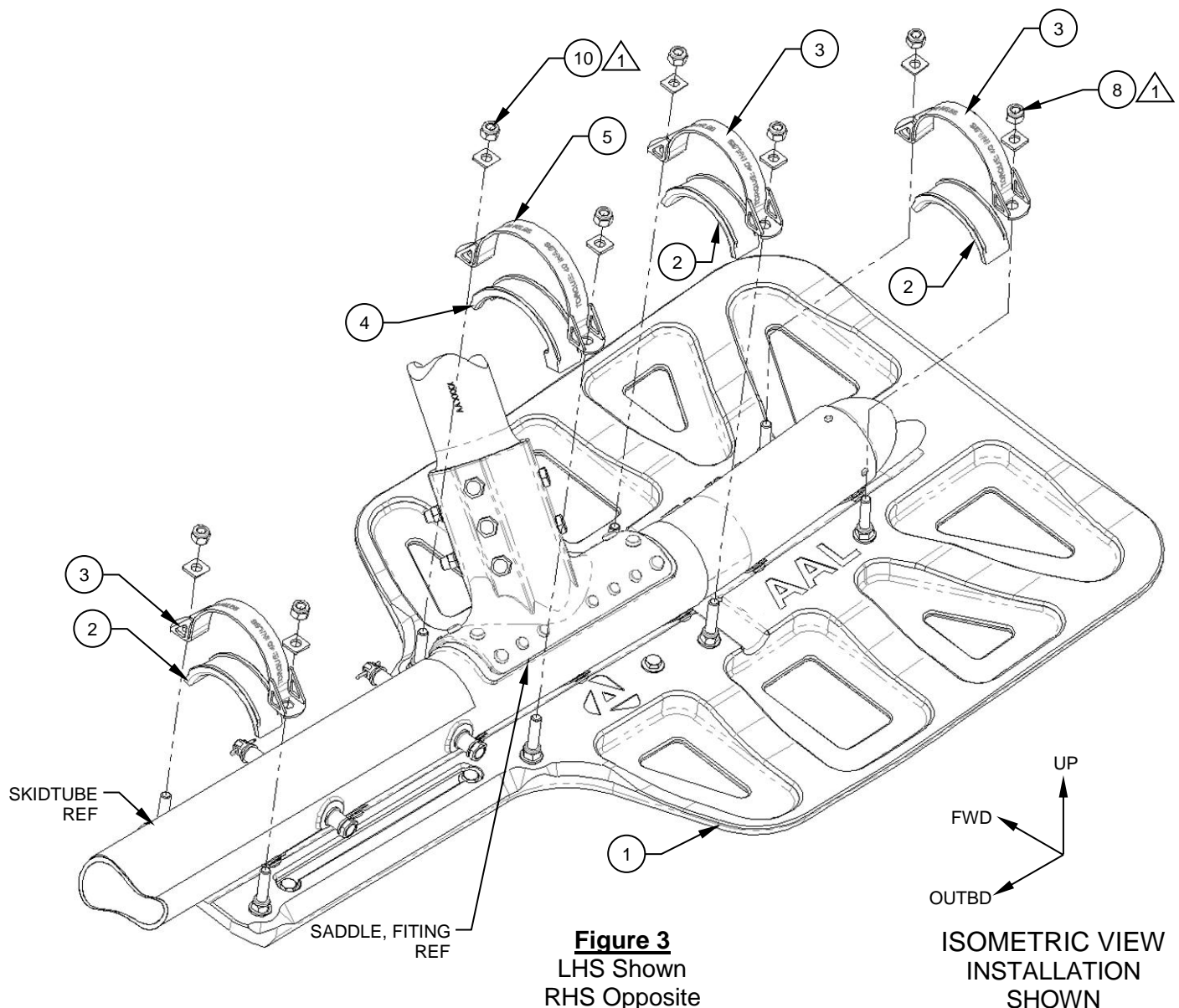


Figure 2
LHS Shown
RHS Opposite



Installation Instructions

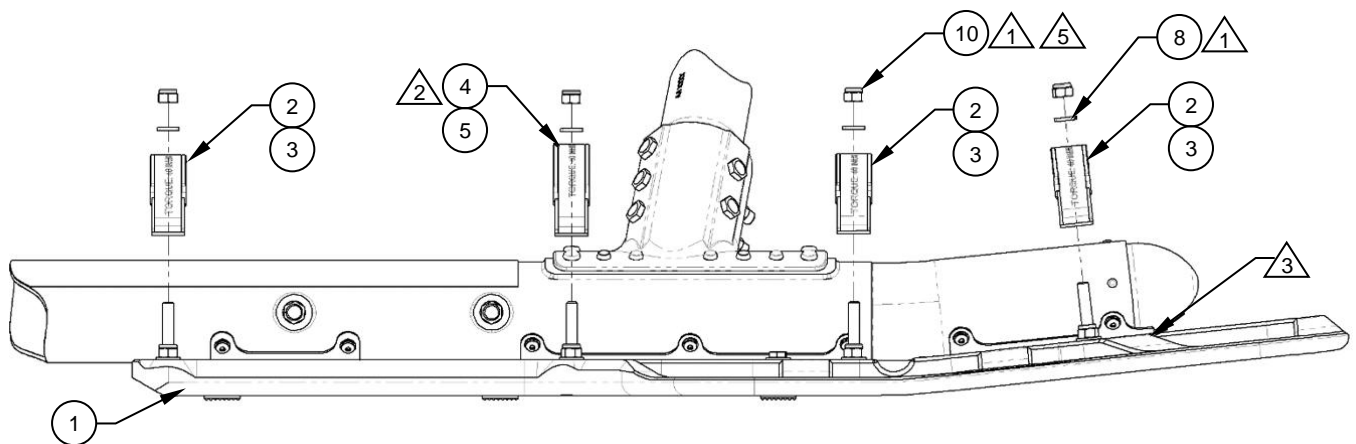
3. Raise the aircraft, so that the Bear Paw, Detail (Item 1) can slide under the skidtube.
4. Once the Bear Paw, Detail (Item 1) is under the skidtube in its approximate location place the Cap, Details (Items 2 & 4) and Strap, Assy's (Items 3 & 5) on their corresponding studs and capture the stud with its respective self-locking nut (Item 10) and washer (Item 8). Reference Figures 3 & 4.
5. Align the center of the Cap, Detail & Strap, Assy (Items 4 & 5) with the center of the fastener row on the saddle, detail. Reference Figure 4.





Installation Instructions

6. Lower the aircraft onto the Bear Paw, Detail (Item 1) and torque fasteners equally to 40 in/lbs. (plus tare torque). For the Aft most Cap, Detail & Strap Assy (Item 2 & 3), prior to final torque of the fasteners ensure there is zero gap between the Bear Paw, Detail (Item 1) and the skidtube. Reference Figures 3 & 4.



UP
FWD
VIEW LKG INBD
INSTALLATION
SHOWN

Figure 4
LHS Shown
RHS Opposite



Installation Instructions

7. Installation complete.
8. Perform a General Inspection of all items to ensure proper installation.
9. Update the aircraft logbook for the installation of the Bear Paw, Kit.



Removal Instructions

1. As there are no special considerations or additional steps to remove the Bear Paw, Kit for either inspections, or mission configuration, the removal of the Bear Paw, Kit can be considered the opposite of installation.
2. Perform a General Inspection of all items to ensure proper removal.
3. Update the aircraft logbook for the removal of the Bear Paw, Kit.