

YETI PAW, ASSY **INSTRUCTIONS FOR CONTINUING AIRWORTHINESS**

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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<u>Notes</u>

- 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 Yeti Paw, Kit as defined in Alpine Aerotech LP authority dataset AAL-490-030-001.

- In soft terrain landing situations (i.e. tundra, snow and sand) where the skid tubes can sink into the landing area, balancing issues can occur and in rare cases the nose attitude after aircraft settles can put the aircraft into slope landing condition.
- When installed, the Yeti Paw, Kit provides additional flotation to the skid gear FWD of the aircraft's C of G, therefore increasing stability and decreasing the potential of going into slope landing condition.



Section 2 Maintenance Manual Supplement

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 429 Maintenance Manual for the chapter(s) and section(s) referenced within this document.
- 3. Refer to the Section 3: Installation & Removal Instructions and Section 4: Illustrated Parts Breakdown for the replacement and/or installation of the item(s) referenced within this section.
- 4. Scheduled inspection for the item(s) referenced within this document shall be accomplished in accordance with (IAW) the Inspection Procedures 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.



Airworthiness Limitations

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.

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.

Supplement to applicable BHT Maintenance Manual, Chapter 4, Airworthiness Limitations Schedule

<u>Notes</u>

- 1. Refer to the applicable Maintenance Manual, Chapter 4-1 and 4-2, for general information on airworthiness limitations and airworthiness limitation schedules.
- 2. Item(s) <u>not</u> listed in the Scheduled Airworthiness Limitations section within this document have an unlimited airworthiness life.

Scheduled Airworthiness Limitations

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



Inspection Procedures

Supplement to applicable BHT 429 Maintenance Manual, Chapter 05, Scheduled/Unscheduled Maintenance

<u>Notes</u>

- 1. Refer to the applicable BHT Maintenance Manual, Chapters 5-1, thru 5-14, for general information on inspections, inspection definitions, inspection intervals, inspection methods and inspection schedules.
- 2. General Inspections, as indicated within this document, are defined as visual, non-thorough checks.
- 3. Detailed Inspections, as indicated within this document, are defined as visual and thorough, searching checks.
- 4. Perform Daily Inspections every day, prior to flight operation. If damage is detected, perform the 400 Hour/12 Month Inspections.
- 5. Perform 400 Hour/12 Month Inspections every 400 hours or every 12 months, whichever occurs first, prior to flight operation. If damage is detected, refer to the Repair Procedures section within this document.



Scheduled Inspections

1. Daily/ Pre-Flight Inspections

Data Reference: Section 3: Installation and Removal Instructions Section 4: Illustrated Parts Breakdown

- i. Perform a General Inspection on all items in the Yeti Paw, Kit for general condition.
- ii. Perform a General Inspection on all items in the Yeti Paw, Kit for proper security.
- iii. Visually confirm the condition of the torque lacquer on the nuts securing the Bear Paw to the skid-tube. If the torque lacquer is broken, perform the 400 hour/12-month inspection.
- 2. 400 Hour/12 Month Inspections

Data Reference: Section 3: Installation and Removal Instructions Section 4: Illustrated Parts Breakdown

- i. Perform a Detailed Inspection on all items, materials and finishes in the Yeti Paw, Kit for evidence of corrosion, cracks and damage.
- ii. Perform a Detailed Inspection on all items in the Yeti Paw, Kit for evidence of excessive wear.
- iii. Perform a Detailed Inspection on all items, materials and finishes in the Yeti Paw, Kit for proper integrity and condition.
- iv. Perform a Detailed Inspection on all hardware and fasteners in the Yeti Paw, Kit for proper security and torque.



Repair Procedures

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



Section 3 Installation & Removal Instructions

Applicability

The Yeti Paw, Kit (AAL-340-030-001) is applicable to all serial numbers, equipped with standard (low) landing gear only.

Weight & Balance

<u>Part Number</u> AAL-490-030-001	<u>Description</u> Yeti Paw, Kit †	<u>Weight</u> 12.15* 5.51 <i>(Kg)</i>	<u>Long. Arm</u> 166.84 <i>4.23 (m)</i>	<u>Lat. Arm</u> .000 <i>.00 (m)</i>
AAL-490-030-001	Yeti Paw, Kit ‡	11.19* 5.07 <i>(Kg)</i>	166.58 <i>4.23 (m)</i>	.000 <i>.00 (m)</i>

† 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 Advisory Circular AC 43.13-1 and AC 43.13-2 for details on standard aircraft practices.
- 2. Torque fasteners IAW the tension type torque limits indicated in the current revision of the FAA Advisory Circular AC 43.13-1, 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 2: Maintenance Manual Supplement for instructions on maintenance for the item(s) referenced within this section.
- 5. Refer to Section 4: Illustrated Parts Breakdown for the part numbers of the item(s) referenced within this section.



Installation Notes

- \uparrow Typical item number for all like items in this view unless otherwise specified.
- Apply Threadlocker (Item 15) to threads IAW manufacturer's recommendations (prior to torqueing fastener). Torque to 30-35 IN/LBS
- 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 Yeti Paw, Detail (Item 1, 14 OPP) as shown. Ensure <u>all</u> 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 (8X) and associated hardware must be installed. Use applicable Weight & Balance data accordingly.

If Grippers are not desired, all Grippers (8X) 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.

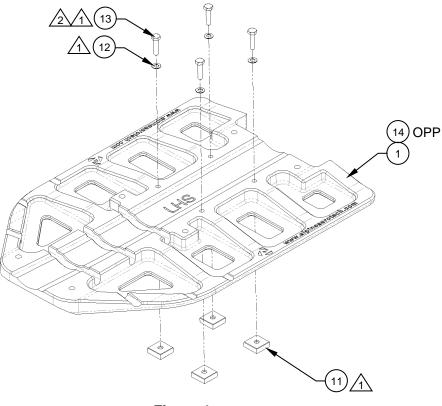


Figure 1 Typical Gripper Installation



Installation Instructions

2. Install the supplied hardware on the Yeti Paw, Detail (Item 1) as shown. Reference Figure 2.

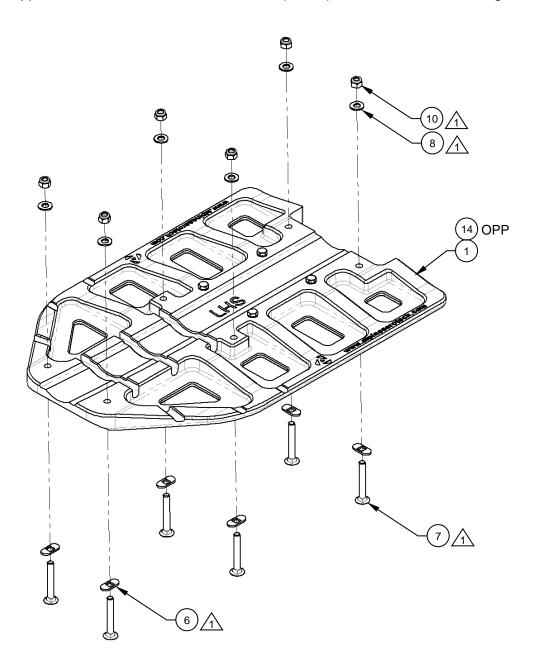
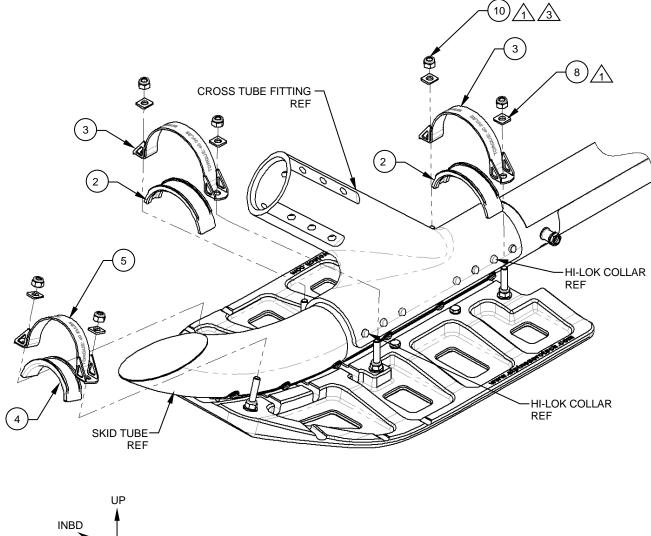


Figure 2 Typical Hardware Installation



Installation Instructions (cont.)

3. Raise the aircraft so the Yeti Paw, Detail (Item 1) can be slide under the skid tube. Reference Figure 3.



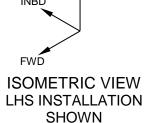
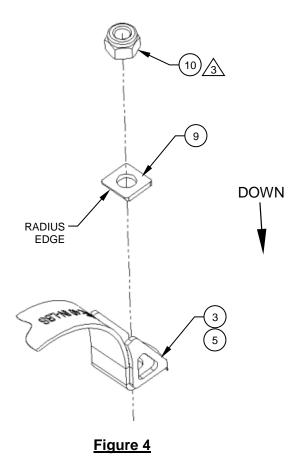


Figure 3 LHS Shown **RHS** Opposite



Installation Instructions (cont.)

- 4. Once the Yeti Paw, Detail (Item 1, 14 OPP) is under the skid tube in its approximate location, place the Strap, Assys (Item 3 & 5) and their respective Cap, Details (Items 2 & 4) on their corresponding bolts. Reference Figure 3.
 - **NOTE:** Ensure the Cap, Detail (Item 2) is oriented on top of the forward Hi-Lok Collar common to the cross tube fitting.
 - **NOTE:** Ensure the Cap, Details (Item 2 & 4) are oriented properly on top of the skid tube and cross tube fitting.
- 5. Install the supplied Washer (Item 9) and Nut (Item 10) on each bolt. Reference Figure 3.
 - **NOTE:** Ensure the radius edge on the Washer (Item 9) is oriented down and towards the skid tube. Reference Figure 4.
 - **NOTE:** A "thin-wall" socket may be required to adequately engage the Nut (Item 10).





- **CAUTION:** Do <u>NOT</u> apply full torque to the fasteners at this stage while the aircraft is raised off the ground. Only apply <u>minimal</u> torque to snug-up the Yeti Paw, Detail (Item 1, 14 OPP).
- 6. Lower the aircraft onto the Yeti Paw, Details (Item 1, 14 OPP) and torque the fasteners equally to <u>40 in/lbs</u>. (plus tare torque). Reference Figure 3.

CAUTION: Before applying torque, ensure the Cap, Detail (Item 2) is oriented over top of the forward Hi-Lok Collar common to the cross tube fitting. Reference Step 4.

- 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 Yeti Paw, Kit.



Removal Instructions

- 1. As there are no special considerations or additional steps to remove the Yeti Paw, Kit for either inspections, or mission configuration, the removal of the Yeti 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 Yeti Paw, Kit.

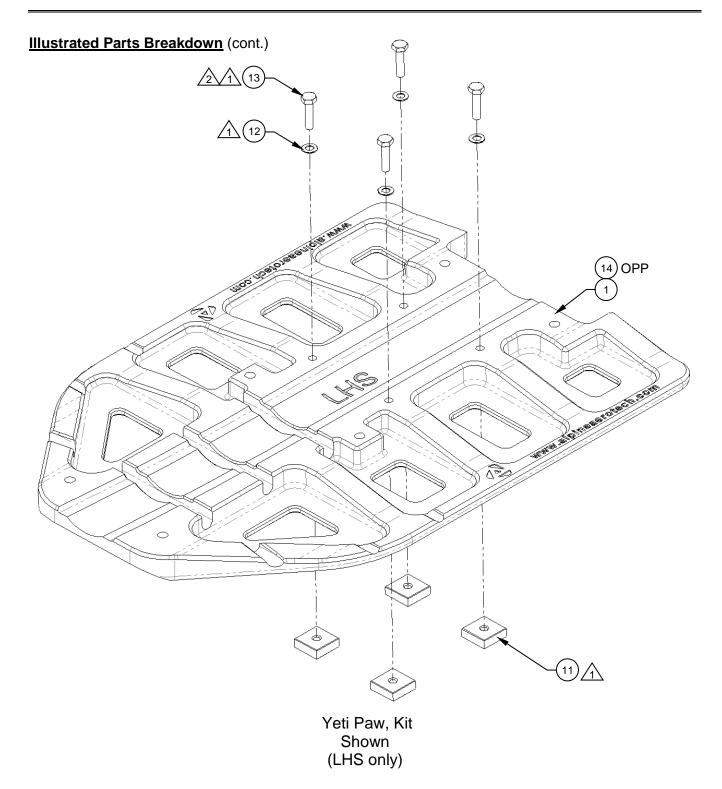


Section 4 Illustrated Parts Breakdown

General Notes

- 1. Alternate items listed where applicable.
- f_1 Typical item number for all like items in this view unless otherwise specified.
- Threadlocker (Item 15) and Torque Lacquer (Item 16) <u>not</u> shown and <u>not</u> supplied. Procure locally.







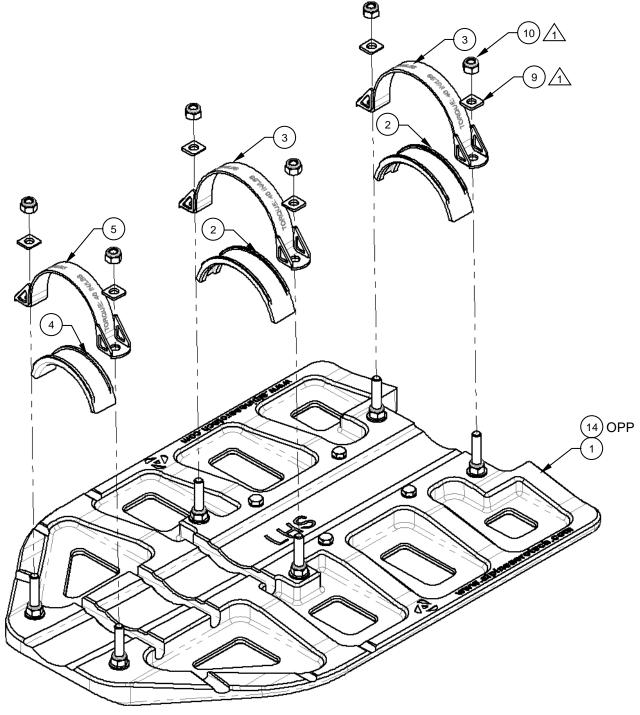
1260 Industrial Road, West Kelowna, B.C., Canada V1Z 1G5 Phone: (250) 769-6344 Fax: (250) 769-6303 info@alpineaerotech.com

Illustrated Parts Breakdown (cont.) 8 10 8 OPP 14 $\overline{\mathcal{I}}$ 6Yeti Paw, Kit Shown (LHS only)



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Illustrated Parts Breakdown (cont.)



Yeti Paw, Kit Shown (LHS only)



Illustrated Parts Breakdown (cont.)

ITEM	QTY	NUMBER	DESCRIPTION	MATERIAL	REF STOCK SIZE	SPEC	FINISH	MANUFACTURER	NCAGEC
-	-	AAL-490-030-001	YETI PAW, ASSY						
1	1	AAL-490-032-001	YETI PAW. DETAIL. LHS	NA	NA	NA	NA	ALPINE AEROTECH LP	L0171
2	-	AAL-490-032-001 AAL-490-032-003	, , _	NA	NA		NA	ALPINE AEROTECH LP	L0171
3		AAL-490-011-004		NA	NA		NA	ALPINE AEROTECH LTD.	-
4	2	AAL-490-012-002	CAP, DETAIL	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
5	2	AAL-490-011-003	STRAP, ASSY	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
6	12	AAL-290-042-006	TAB, DETAIL	NA	NA	NA	NA	ALPINE AEROTECH LTD.	L0171
7	12	Ø.3125-18 x 2.250 x 2.250	BOLT, ROUND HEAD, SQUARE NECK	ASTM A307 GRADE A	SEE SPEC	ASME B18.5	ZINC PLATED	SOURCE AS REQUIRED	NA
8	12	MS15795-812	WASHER, FLAT	SEE SPEC	SEE SPEC	NASM15795	SEE SPEC	SOURCE AS REQUIRED	NA
9	12	NAS1401-5C-3	WASHER, RADIUS	SEE SPEC	SEE SPEC	NAS1401	SEE SPEC	SOURCE AS REQUIRED	NA
10	24	Ø.3125-18	NUT, HEX, SELF LOCKING	SEE SPEC	SEE SPEC	ASTM A563	ZINC PLATED	SOURCE AS REQUIRED	NA
11	8	CL-16-SG	SQUARE, GRIPPER	NA	NA	NA	NA	NA	99862
12	8	NAS1149F0432P	WASHER, FLAT	SEE SPEC	SEE SPEC	NAS1149	SEE SPEC	SOURCE AS REQUIRED	NA
13	8	AN4-10A	BOLT, MACHINE	SEE SPEC	SEE SPEC	NASM3THRU20	SEE SPEC	SOURCE AS REQUIRED	NA
14	1	AAL-490-032-002	YETI PAW, DETAIL, RHS	NA	NA	NA	NA	ALPINE AEROTECH LP	L0171
15	AR	NA	THREADLOCKER, MEDIUM STRENGTH	LOCTITE 243	SEE MFR	SEE MFR	SEE MFR	HENKEL LOCTITE CORPORATION	79436
16	AR	C83317		DYKEM CROSS CHECK	SEE MFR	SEE MFR	YELLOW	ITW PRO BRANDS	1QZC4