

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY
OFFICE IDENTIFICATION

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE PIPER	MODEL PA-18
	SERIAL NO. 18-8603	NATIONALITY AND REGISTRATION MARK N-4293-Z
2. OWNER	NAME (As shown on registration certificate) EBERHARD BRUNNER	ADDRESS (As shown on registration certificate) 1235 CRESCENT Anchorage AK 99504

3. FOR FAA USE ONLY

4. UNIT IDENTIFICATION				5. TYPE	
UNIT	MAKE	MODEL	SERIAL NO.	REPAIR	ALTERATION
AIRFRAME	~~~~~ (As described in item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS ALASKA AIR GUIDES INC North Shore of Lake Hood Anchorage, AK 99503	B. KIND OF AGENCY		C. CERTIFICATE NO. 501-48
	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC		
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC		
	<input checked="" type="checkbox"/> CERTIFICATED REPAIR STATION		
	MANUFACTURER		

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE 11/3/74	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>John Brunner</i>
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7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is: APPROVED REJECTED

BY	FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
	FAA DESIGNEE	<input checked="" type="checkbox"/> REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	
DATE OF APPROVAL OR REJECTION 11/3/74	CERTIFICATE OR DESIGNATION NO. 501-48	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>John Brunner</i>		

WHEELS

ATTACHMENT NO. 1
(WHEELS)

AAL-GADO-01

DATE: 8-19-82

Piper PA-18-150
AIRCRAFT MAKE & MODEL

N NO. N42932

AIRPLANE

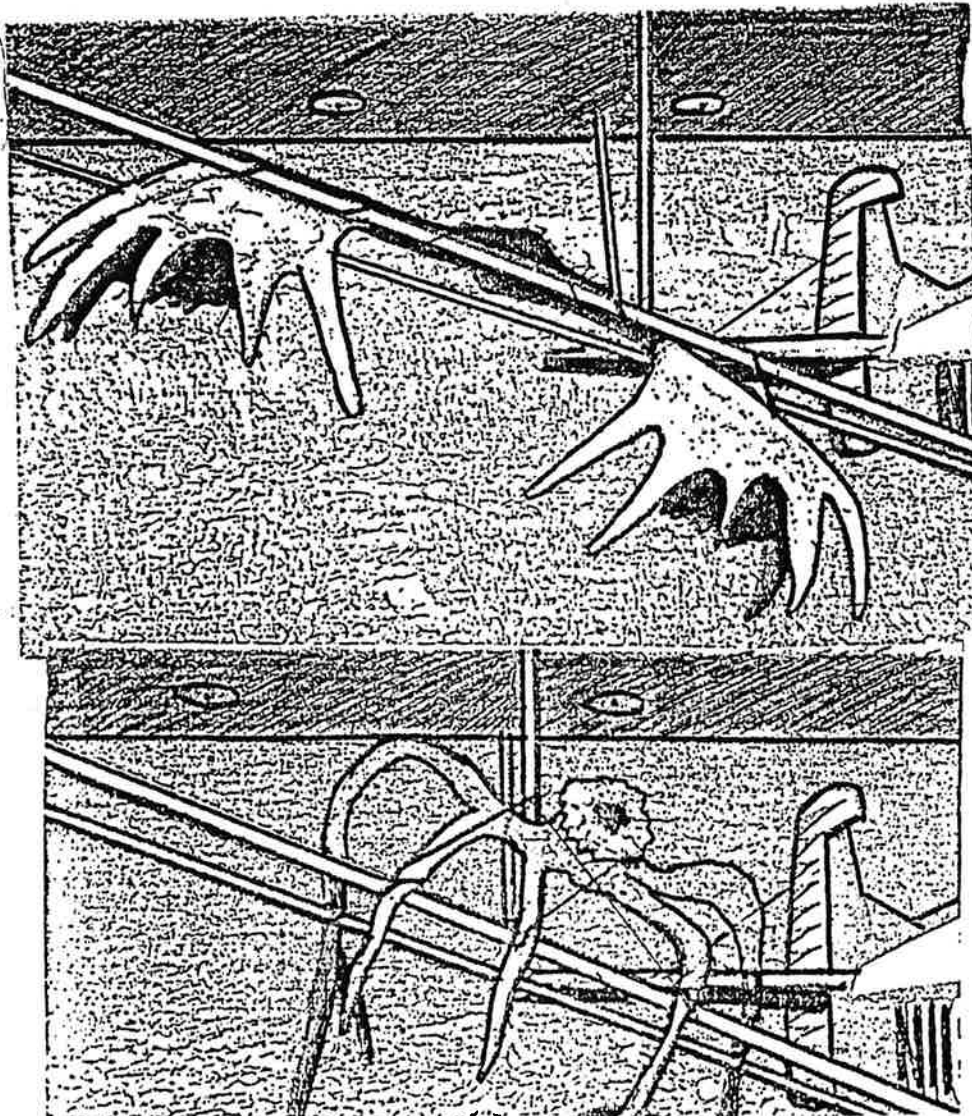
RESTRICTED CATEGORY

EXTERNAL LOAD

OPERATIONS LIMITATIONS

HORNS OR ANTLERS

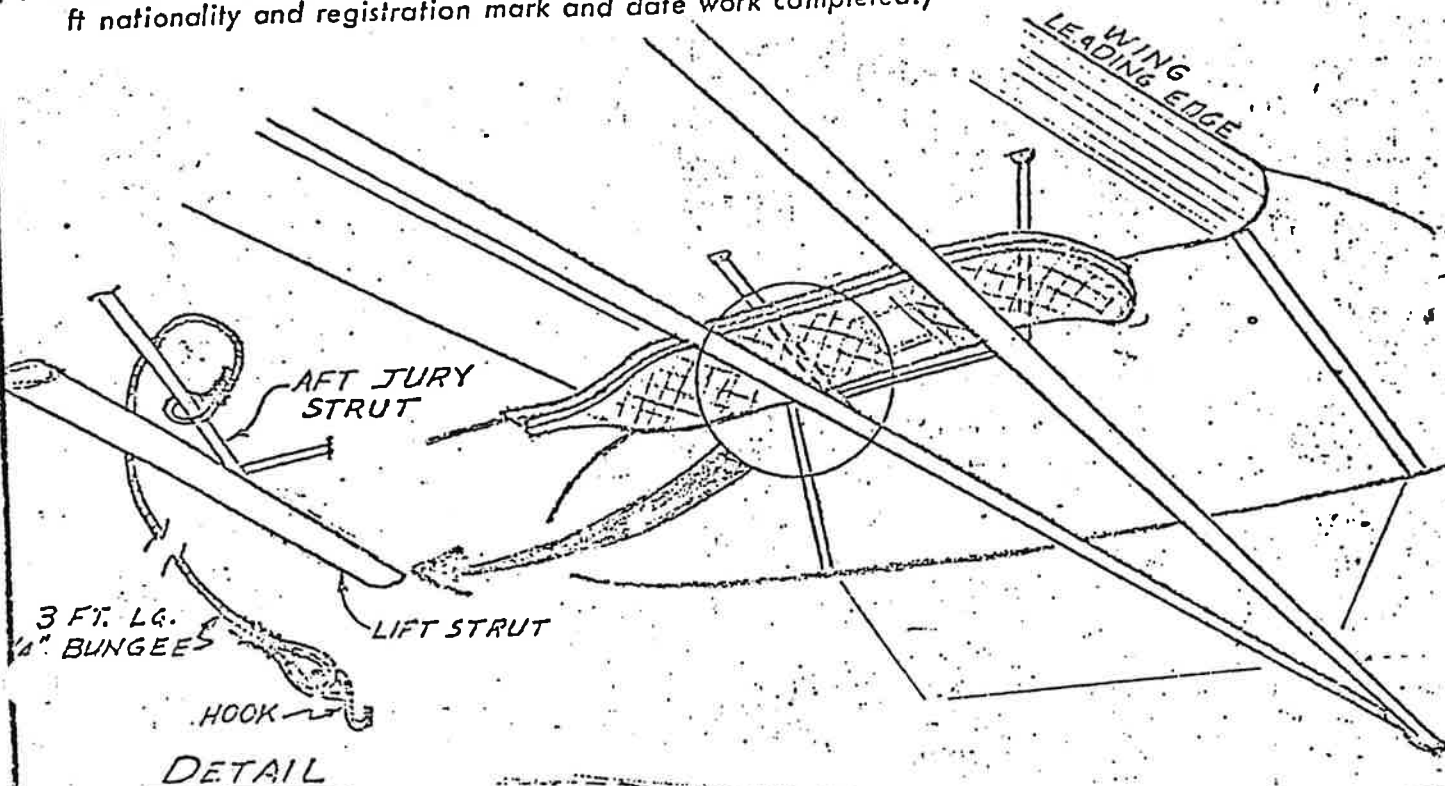
All horns should be secured to the wing lift struts with one quarter ($\frac{1}{4}$) inch diameter nylon rope or equivalent with the minimum of three wraps at each point of lashing. As no two sets of horns are the same, care should be exercised to position the horns for least drag.



NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)



Installed $\frac{1}{4}$ " bungee cord on both left & right wing jury struts. Bungee cords are secured to aft wing jury struts by a normal bungee splice using rib stitching cord. The bungees are three (3) feet long and have a hook formed on one end to facilitate securing items listed below. These bungees are to be used in lashing or securing snow shoes, rifles, rifle scabbards and/or skis (not aircraft skis).

When attaching snowshoes the bungees will pass through the webbing at least once and will extend around complete snowshoe and strut enough times to securely hold in place.

When attaching rifles to struts without the scabbard, bungee will pass through the trigger guard and will continue to wrap around barrel and stock sling ring if applicable, until securely attached.

When attaching scabbard (gun) to struts, bungees will pass through loops stitched to scabbard and proceed around scabbard and pass through trigger guard or stock sling ring until securely attached.

When not in use bungee tie-down cords will be secured around the fore & aft jury struts. The end hook will be secured in such a manner as not to interfere with aileron cables & become loose during flight. When attaching skis (not aircraft), to the struts, the bungee will pass through the bindings around the entire ski so as to secure the skis from any fore and aft or vertical movement.

Wear on the lift struts used for above purposes will have proper chafing material installed. Maximum weight limitation on lift struts is not to exceed 15 pounds per side.

ADDITIONAL SHEETS ARE ATTACHED

FLOATS

ATTACHMENT NO. 2

AAL-GADO-01

DATE: 8-19-82

Piper PA-18-150
AIRCRAFT MAKE & MODEL

N NO. N 4293Z

AIRPLANE

RESTRICTED CATEGORY

EXTERNAL LOAD

OPERATIONS LIMITATIONS

DIMENSIONAL LUMBER

Dimensional lumber on top of floats or spreader bars, the total maximum dimensions of which shall be not more than 8 feet long, 16 square foot frontal area and 400 pounds weight.

When transporting dimensional lumber on this aircraft, the lumber may be stacked on the float spreader bars in close proximity to the floats. The lumber may also be stacked directly on the floats and secured to the float struts.

When lumber is stacked directly on floats and secured to float struts, care should be exercised that there is no interference of controllability of the water rudders by binding of the control cables to the water rudders.

In either position all lashings should be made with one quarter ($\frac{1}{4}$) inch nylon line or equivalent with a minimum of four (4) wraps at each point of lashing.

Attention shall be paid to the frontal area of the stack of lumber, as to the chance of it spreading in flight. If the lumber is ahead of the last lashing more than two (2) feet it should either be nailed together or the end lashing securely fastened.

FLOATS

ATTACHMENT NO. 3

AAL-GADO-01

Date: 8-19-82

Piper PA 18-150
Aircraft Make & Model

N No. N42932

AIRPLANE

RESTRICTED CATEGORY

EXTERNAL LOAD

OPERATING LIMITATIONS

HORNS OR ANTLERS

Moose, caribou or deer horns on right float and spreader bar or on right float only. As no two (2) sets of horns are the same, care should be exercised to position the horns for least drag.

When transporting horns on the floats, moose horns may be placed on right float in line with the floats in such a manner that the palms or top of the horns can be lashed to the aircraft fuselage float struts.

Moose horns may also be attached with the skull facing forward and upside down, with one-half ($\frac{1}{2}$) of the horns laying on front spreader bar and the opposite side lay on the right float. This places the center of the horns in position to be lashed to the front fuselage float strut. Then the palm of the horns are lashed to the front spreader bar and the other palm lashed to the fuselage float strut and brace. Caribou and deer horns may be attached in the same manner as moose horns.

All horns should be secured to the struts with one quarter ($\frac{1}{4}$) inch diameter nylon rope or equivalent with the minimum of three wraps at each point of lashing.

DATE: 8-19-82Piper PA-18-150
AIRCRAFT MAKE & MODELS/N 18-8603N NO. N 4293ZAIRPLANERESTRICTED CATEGORYEXTERNAL LOADOPERATIONS LIMITATIONS

1. This aircraft is certified in the restricted category for the carriage of the following external loads:
 - (a) Description of loads and methods of attachment (see Attachment(s) # 3.)
2. The restricted airworthiness certificate associated with these operation limitations is valid only when the airplane is operated within the State of Alaska and the airplane is in the configuration of above stated attachments (wheels or floats).
3.
 - a. This airplane shall not be operated in the restricted category for other than the special purpose for which it is certificated.
 - b. Operations carrying persons or property for compensation or hire are prohibited.
 - c. No person may be carried in this airplane in the restricted category unless:
 - (1) He is a flight crew member.
 - (2) He is a flight crew member trainee.
 - (3) He performs an essential function in connection with the carriage of the external load for which the aircraft is certificated.
 - d. Takeoffs and landings will be made to provide the least possible exposure to people and property on the ground. Takeoff, landing and enroute flight paths will be planned so that any inadvertent or accidental release of the external load will not present a hazard to persons or property on the surface.
 - e. No flights will be made over densely populated areas or on a congested airway.
 - f. Except for takeoffs and landings, operations shall not be conducted near a busy airport where passenger transport operations are conducted.

g. For operation to and from the Lake Hood Seadrome, all takeoffs will be made either to the north or west. All landings will be made to the south, southeast or east. The operator will ensure that the aircraft flight path will remain clear of any transport passenger operation and/or any populated area.

h. It shall be the responsibility of the pilot to ensure that the load is properly secured to the airplane to prevent it from shifting or coming loose during flight. All lashings and/or attachments shall be made with a minimum of $\frac{1}{4}$ inch nylon rope or $\frac{3}{8}$ inch manila rope; however, caution should be exercised in the use of large ropes which become increasingly difficult to tighten with size. It will also be the responsibility of the pilot to ensure that the airplane is safely controllable and has no adverse flight characteristics while carrying an external load. This shall be accomplished by conducting a flight check of the airplane with each class external load. Prior to such flight, all flight and water steering controls shall be checked for freedom of movement. Upon completion of each satisfactory flight check and prior to further operation, the following entry shall be made in the airplane records:

"Airplane flight checked at airspeeds from _____ and to _____ mph/knots with an external load attached, consisting of _____ and secured in the following manner _____, aircraft in clean configuration or flaps _____, on _____, by _____ (date) _____" *(FLIGHT MANUAL)*

Name Pilot Certificate No.

and found to be safely controllable and to operate satisfactorily."

- i. Operations shall not be conducted at speeds exceeding that for which safe controllability has previously been demonstrated.
- j. The gross weight or c.g. of the airplane shall not be exceeded.
- k. The flight check and the actual flight with an external load must be conducted by a pilot who holds at least a private pilot certificate and meets the hour requirements for a commercial pilot. He must also have at least 50 hours of pilot-in-command time in this make and model of airplane.
- l. The word "RESTRICTED" must be displayed on the airplane near each entrance to the cabin or cockpit in letters not less than two inches nor more than six inches in height.
- m. The restricted airworthiness certificate associated with these operations limitations is valid only when the airplane is being operated within the State of Alaska.
- n. VFR day operation only.
- o. Operations shall not be conducted in turbulent air.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Form Approved
Budget Bureau No. 04-R060.1

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

FOR FAA USE ONLY
OFFICE IDENTIFICATION

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form.

1. AIRCRAFT	MAKE <i>PIPER</i>	MODEL <i>PA-18-150</i>
	SERIAL NO. <i>18-8603</i>	NATIONALITY AND REGISTRATION MARK <i>N4293Z</i>
2. OWNER	NAME (As shown on registration certificate) <i>EBERHARD BRUNNER</i>	ADDRESS (As shown on registration certificate) <i>Box 6808 Ave AK 99502</i>

3. FOR FAA USE ONLY

This FAA Form 337 plus the original type certificate constitutes the restricted category type certificate for this airplane for the carriage of external loads.

4. UNIT IDENTIFICATION

5. TYPE

UNIT	MAKE	MODEL	SERIAL NO.	5. TYPE	
				REPAIR	ALTERATION
AIRFRAME	~~~~~ (As described in item 1 above) ~~~~~				X
POWERPLANT					
PROPELLER					
APPLIANCE	TYPE				
	MANUFACTURER				

6. CONFORMITY STATEMENT

A. AGENCY'S NAME AND ADDRESS	B. KIND OF AGENCY	C. CERTIFICATE NO.
	<input type="checkbox"/> U.S. CERTIFICATED MECHANIC	
	<input type="checkbox"/> FOREIGN CERTIFICATED MECHANIC	
	<input type="checkbox"/> CERTIFICATED REPAIR STATION	
	<input type="checkbox"/> MANUFACTURER	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

DATE	SIGNATURE OF AUTHORIZED INDIVIDUAL
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7. APPROVAL FOR RETURN TO SERVICE

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is APPROVED REJECTED

BY	<input checked="" type="checkbox"/> FAA FLT. STANDARDS INSPECTOR	MANUFACTURER	INSPECTION AUTHORIZATION	OTHER (Specify)
	<input type="checkbox"/> FAA DESIGNEE	REPAIR STATION	CANADIAN DEPARTMENT OF TRANSPORT INSPECTOR OF AIRCRAFT	

DATE OF APPROVAL OR REJECTION <i>8-19-82</i>	CERTIFICATE OR DESIGNATION NO. <i>F500-63</i>	SIGNATURE OF AUTHORIZED INDIVIDUAL <i>E. H. Keen</i>
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NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. DESCRIPTION OF WORK ACCOMPLISHED (If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

No modification of the airplane has been made; therefore, item 6 need not be completed.

1. Operations Limitations - Restricted Category - External Load - dated 8-19-82 are provided.
2. Loads shall be secured as specified in the operation limitations.

ADDITIONAL SHEETS ARE ATTACHED

p. When this airplane is carrying an external load, only the following pilot/pilots is/are authorized to fly it:

GEORGE BRUNNER
Name

VICK CARLSON
Name

Name

574167844

Certificate No.

Certificate No.

Certificate No.

- q. Any major alternation to the airplane shall invalidate the attached restricted airworthiness certificate. No further operation of the airplane under the terms of this certificate may be conducted unless further operation is authorized by an FAA General Aviation Maintenance Inspector.
- r. The attached restricted airworthiness certificate will become invalid upon transfer of ownership of the aircraft or its removal from the State of Alaska. The owner who made application for this restricted airworthiness certificate shall, prior to removing the airplane from Alaska or transfer of the ownership of this airplane, surrender the certificate with the attached operation limitations to the issuing FAA office, for cancellation, or one of the other FAA General Aviation District Offices in the Alaskan Region.
- s. If aircraft can be converted from one category to the other by simple mechanical means, no airworthiness inspection by a mechanic or FAA inspector after each change is required.


General Aviation Maintenance Inspector
ANC GADO 5-0-01

Endorsement by FAA inspector for continuation of these operations limitations as follows:

Date _____ to expire on Date _____

Signed _____
General Aviation Maintenance Inspector GADO/FSDO

Date _____ to expire on Date _____

Signed _____
General Aviation Maintenance Inspector GADO/FSDO