

United States of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SA02032AK

This Certificate issued to Airglas Engineering Co., Inc.
Anchorage, AK 99519

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of part 23 of the Federal Aviation regulations.

Original Product - Type Certificate Number: A22NM

Make: AVIAT

Model: A-1

Description of Type Design Change: Installation of Airglas Engineering Co., Inc. Model L2500A skis on the main landing gear in accordance with Airglas Engineering Co., Inc. Drawing No. L2500-A-1 dated February 17, 1995, or later FAA approved revision, and Manual L2500A-105 dated February 22, 1995, or later FAA approved revision, and fabrication in accordance with Airglas Engineering Co., Inc. Drawing List No. L2500AVIAT dated February 17, 1995, or later FAA approved revision.

Limitations and Conditions: Compatibility of this design change with previously approved modifications must be determined by the installer. FAA approved Airplane Flight Manual Supplement dated April 17, 1995, or later FAA approved revision is required.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: December 18, 1992

Date of issuance: April 07, 1995

Date reissued:

Date amended:



By direction of the Administrator

Robert L. Miller

(Signature)

Robert L. Miller

Manager

Anchorage Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

Airglas Engineering Co., Inc.

Box 190107 • Anchorage, Alaska 99519 USA • 907-344-1450 • Fax 907-349-4938



FAA - APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT

FOR

AVIAT, Inc. Model A-1 (Husky)

Reg. No. _____
Ser. No. _____

This supplement must be attached to the FAA-approved Airplane Flight Manual dated March 18, 1995 (revision J or later approved revisions) when Airglas Model L2500A skis are installed in accordance with STC SA02032AK. The information contained in this document supplements or supersedes the basic manual only in those areas listed. For limitations, procedures and performance information not contained in this supplement, consult the basic airplane flight manual.

FAA-Approved Robert L. Miller

Manager, Aircraft Certification Office
Federal Aviation Administration
Anchorage, Alaska

Dated APR 7 1995

Page 1 of 5

Airglas Engineering Co., Inc.

Box 190107 • Anchorage, Alaska 99519 USA • 907-344-1450 • Fax 907-349-4938



LOG OF REVISIONS				
REVISION NUMBER	PAGES REVISED	DESCRIPTION OF REVISION	FAA APPROVED	DATE
A	4,5	Para. J, F	<i>L. B. Chudy</i>	OCT 13 1995

SAMPLE

Dated OCT 13 1995

Page 2 of 5

Designers & Manufacturers of
Landes **AIRGLAS®** Skis



This supplement must be attached to FAA Approved Airplane Flight Manual when Airglas Model L2500A wheel replacement skis are installed.

SECTION I OPERATING LIMITATIONS :

- A.) Airspeeds : NO CHANGE
- B.) Powerplant limits : NO CHANGE
- C.) Weights : add 70 lbs at Fuselage station 55.56 for the skis
Subtract the weight of the wheels & tires at F.S. 61.56
- D.) Flight loads : NO CHANGE
- E.) Flight Limitations : NO CHANGE
- F.) Useable fuel : NO CHANGE
- G.) Markings and Placards : NO CHANGE
- H.) Maximum Passenger Seating Configuration : NO CHANGE
- I.) Operating Equipment : Wheel replacement skis are added.

SECTION II NORMAL PROCEDURES :

- A.) Airspeeds : NO CHANGE
- B.) Pre-flight : Inspect cables and bungees for wear and or missing bolts, cotter keys etc
- C.) Before starting engine :



Warning

Airglas L2500A skis do not have brakes, confirm that wings are tied down and the area in front of the airplane is safely clear for taxiing.

D.) Starting engine :



Warning

Hand propping of engine is not recommended.

E.) Before Takeoff :



Warning

Airglas L2500A skis do not have brakes, use extreme caution in taxiing.

Dated APR 7 1995
Page 3 of 5



- F.) **Takeoff** : Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane take off distance is approximately 20 percent greater than that shown for the landplane



Warning

In estimating distances for other conditions, caution should be exercised in that other temperatures or other snow conditions may **significantly** increase these distances.

- G.) Cruise : NO CHANGE
H.) Before landing : NO CHANGE
I.) Balked landing : NO CHANGE
J.) **Landing** : Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane landing distance is approximately 20 percent greater than that shown for the landplane



Warning

In estimating distances for other conditions, caution should be exercised in that other temperatures or other snow conditions may either **significantly** decrease or increase these distances.

- K.) After landing : NO CHANGE
L.) Securing Aircraft : NO CHANGE
M.) Starting engine using external battery power : NO CHANGE

Dated OCT 13 1995

Page 4 of 5



SECTION III **EMERGENCY PROCEDURES**

A - H NO CHANGE

SECTION IV **PERFORMANCE INFORMATION**

- A.) Stalls : NO CHANGE
- B.) Maneuvers and entry speed : NO CHANGE
- C.) Engine cooling : NO CHANGE
- D.) Takeoff Performance : Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane take off distance is approximately 20 percent greater than that shown for the landplane



Warning

In estimating distances for other conditions, caution should be exercised in that other temperatures or other snow conditions may **significantly** increase these distances.

- E.) Climb : NO CHANGE
- F.) Landing : Under the most favorable conditions of smooth packed snow at temperatures approximating 32°F, the ski-plane landing distance is approximately 20 percent greater than that shown for the landplane

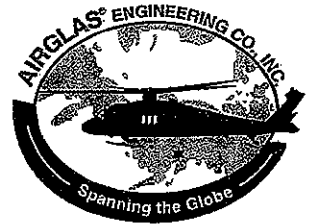


Warning

In estimating distances for other conditions, caution should be exercised in that other temperatures or other snow conditions may either **significantly** decrease or increase these distances.

Dated OCT 13 1995

Page 5 of 5



MANUAL L2500A-105
INSTALLATION INSTRUCTIONS FOR AIRGLAS MODEL L2500A SKIS
ON
AVIAT, INC. MODEL A-1 (HUSKY) AIRCRAFT

February 22, 1995

Page 1 of 2

1. Jack aircraft as appropriate per manufacturer's instructions.
2. Remove aircraft wheels and brakes (leave torque plates attached to axles).
3. Remove inner wheel bearing stops (save for reinstallation of wheels).
4. Install one AN960-2016 washer against the bolt heads holding the torque plate to the axle flange (Ref. Item 7, Section D-D) as shown on Installation Drawing L2500-A-1.
5. Install left ski (P/N L2500A-1) on left axle. Install one spacer (P/N L2000-PA-18-5) on axle outboard of ski. Re-install axle nut, and secure with cotter pin (AN380/381 or equivalent) as shown in Section D-D.
6. Repeat steps 4 & 5 for right ski (P/N L2500A-2).
7. With skis installed on main gear axles, remove both forward upper landing gear fairings that cover the upper gear leg bolt (AN6-44). For a pictorial view refer to Airglas Drawing L2500-A-1, Detail H. Remove the AN310-6 castle nuts from the forward AN6-44 landing gear bolts and remove any AN960-616 washers as well. Check bolt length to allow for installation of front ski cable/bungee assembly tab. Use next size longer AN6 bolt, if necessary.
8. Install tab end of bungee/safety cable assembly to front end of forward landing gear bolt (Ref. Detail H of Installation Drawing) and secure with cotter pin (AN380/381, or equivalent).
9. Remove castle nut from AN6 bolt at rear float attach fitting. Install tab end of rear check cable assembly to front end of AN6 bolt (Ref. Detail J of Installation Drawing). Re-install castle nut, and secure with cotter pin (AN380/381, or equivalent).



MANUAL L2500A-105
INSTALLATION INSTRUCTIONS FOR AIRGLAS MODEL L2500A SKIS
ON
AVIAT, INC. MODEL A-1 (HUSKY) AIRCRAFT

February 22, 1995

Page 2 of 2

10. Ski incident angles are determined by pre-fabricated front and rear safety cable assemblies supplied by Airglas Engineering Co., Inc.. Proper installation of skis will result in a maximum nose-up incident angle of (+2 to +4 degrees) and a maximum nose-down incident angle of (-20 degrees) when measured with the aircraft leveled per AVIAT, INC. leveling instructions. Or an equivalent method that checks the angle of the ski (tip up and tip down) in relation to the lower cabin door sill.
11. Make appropriate Log Book entry.
12. Fill out FAA Form 337.
13. Add the skis and rigging weights to the new aircraft weight and balance report. The Center of Gravity (CG) of the ski is at Fuselage Station 55.56. (NOTE: Total installed weight of skis and rigging is 70.0 lbs.)

Airglas Engineering Co., Inc.

Box 190107 • Anchorage, Alaska 99519 USA • 907-344-1450 • Fax 907-349-4938

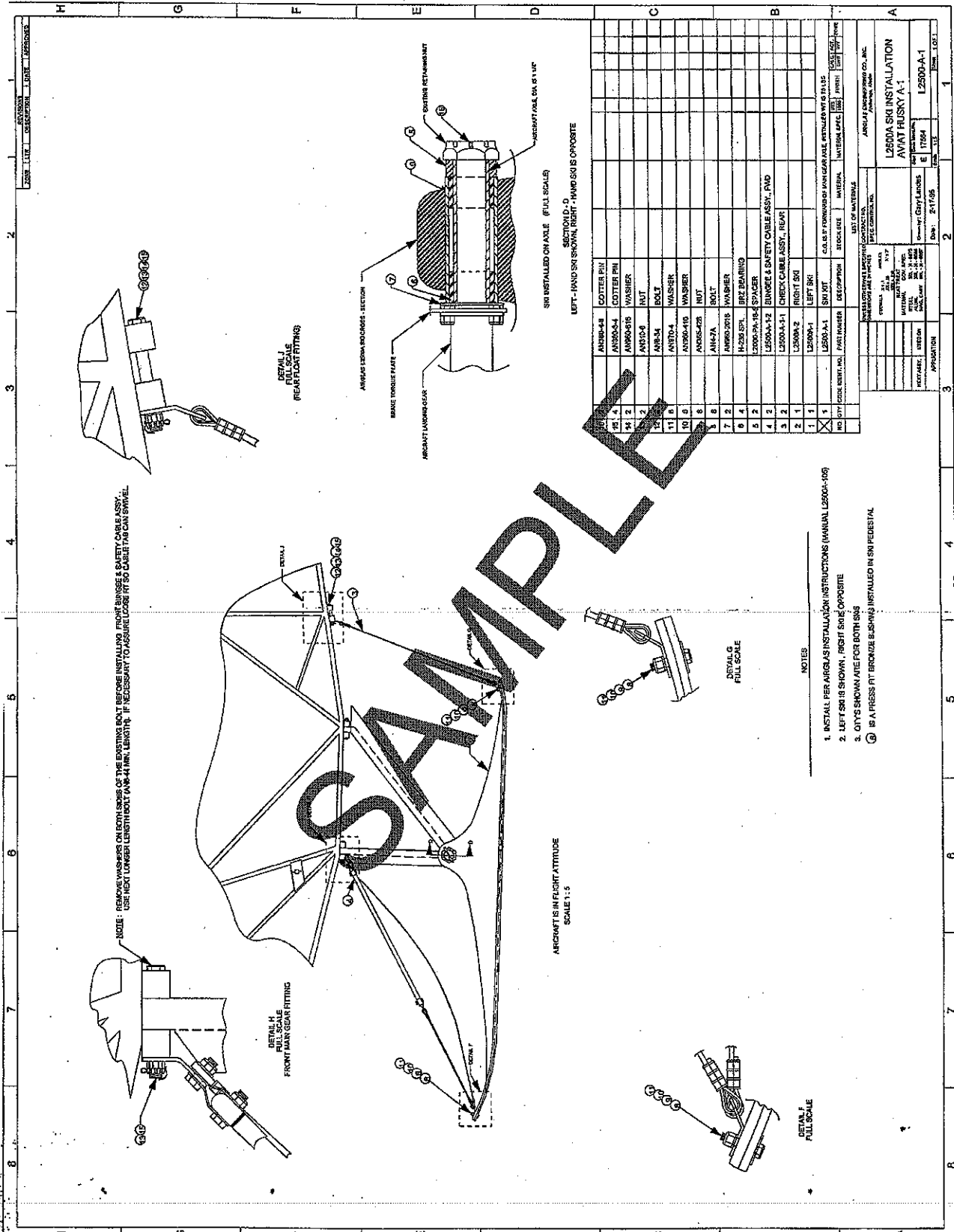


Date : Original issue date

Feb. 17, 1995

Subject : Drawing list number L2500AVIAT

Nomenclature	Drawing Number	Revision	Date of Revision
Installation	L2500-A-1	None	2-17-95
Check cable assy., Rear	L2500-A-1-1	None	2-17-95
Bungee & Safety cable assy., Front	L2500-A-1-2	None	2-17-95
-24 & -25 tab placement on L2500A skis	L2500-A-1-3	None	2-17-95
Brz Bearing	H-235 SPI	None	2-17-95
Spacer	L2000-PA-18-5	None	2-17-95
Bushing	L44000-11-8-1	None	2-17-95
Tab	L44000-11-8-8	None	2-17-95
Tab	24	None	2-17-95
Tab	25	None	2-17-95
Tab	26	A	2-17-95



NOTE: REMOVE WASHERS ON CONDUITS OF THE EXISTING BOLT BEFORE INSTALLING. FRONT BUSHES & SAFETY CABLE ASSY. USE NEXT LONGER LENGTH OUT (MIN 41 IN). LENGTH. IF NECESSARY TO ASSURE CORRECT FIT, CABLE TAB CAN SPWEL.

ARCRAFT IS IN FLIGHT ATTITUDE
SCALE 1:5

SECTION D-D
LEFT - HAND SKI SHOWN, RIGHT - HAND SKI IS OPPOSITE

SKI INSTALLED ON AXLE (FULL SCALE)

NOTES

1. INSTALL PER ARGUS INSTALLATION INSTRUCTIONS (MANUAL L2600A-109)
2. LEFT SKI IS SHOWN, RIGHT SKI IS OPPOSITE
3. OLYS SHOWN ATE FOR BOTH SKIS
4. IS A PRESS FIT BROUZE BUSHING INSTALLED IN SKI PEEDESTAL

NO	QTY	DESC	UNIT	REMARKS	DATE	BY	CHKD	APPV
1	1	ARGUS SKI						
2	1	ARGUS SKI						
3	1	ARGUS SKI						
4	1	ARGUS SKI						
5	1	ARGUS SKI						
6	1	ARGUS SKI						
7	1	ARGUS SKI						
8	1	ARGUS SKI						
9	1	ARGUS SKI						
10	1	ARGUS SKI						
11	1	ARGUS SKI						
12	1	ARGUS SKI						
13	1	ARGUS SKI						
14	1	ARGUS SKI						
15	1	ARGUS SKI						
16	1	ARGUS SKI						
17	1	ARGUS SKI						
18	1	ARGUS SKI						
19	1	ARGUS SKI						
20	1	ARGUS SKI						
21	1	ARGUS SKI						
22	1	ARGUS SKI						
23	1	ARGUS SKI						
24	1	ARGUS SKI						
25	1	ARGUS SKI						
26	1	ARGUS SKI						
27	1	ARGUS SKI						
28	1	ARGUS SKI						
29	1	ARGUS SKI						
30	1	ARGUS SKI						
31	1	ARGUS SKI						
32	1	ARGUS SKI						
33	1	ARGUS SKI						
34	1	ARGUS SKI						
35	1	ARGUS SKI						
36	1	ARGUS SKI						
37	1	ARGUS SKI						
38	1	ARGUS SKI						
39	1	ARGUS SKI						
40	1	ARGUS SKI						
41	1	ARGUS SKI						
42	1	ARGUS SKI						
43	1	ARGUS SKI						
44	1	ARGUS SKI						
45	1	ARGUS SKI						
46	1	ARGUS SKI						
47	1	ARGUS SKI						
48	1	ARGUS SKI						
49	1	ARGUS SKI						
50	1	ARGUS SKI						
51	1	ARGUS SKI						
52	1	ARGUS SKI						
53	1	ARGUS SKI						
54	1	ARGUS SKI						
55	1	ARGUS SKI						
56	1	ARGUS SKI						
57	1	ARGUS SKI						
58	1	ARGUS SKI						
59	1	ARGUS SKI						
60	1	ARGUS SKI						
61	1	ARGUS SKI						
62	1	ARGUS SKI						
63	1	ARGUS SKI						
64	1	ARGUS SKI						
65	1	ARGUS SKI						
66	1	ARGUS SKI						
67	1	ARGUS SKI						
68	1	ARGUS SKI						
69	1	ARGUS SKI						
70	1	ARGUS SKI						
71	1	ARGUS SKI						
72	1	ARGUS SKI						
73	1	ARGUS SKI						
74	1	ARGUS SKI						
75	1	ARGUS SKI						
76	1	ARGUS SKI						
77	1	ARGUS SKI						
78	1	ARGUS SKI						
79	1	ARGUS SKI						
80	1	ARGUS SKI						
81	1	ARGUS SKI						
82	1	ARGUS SKI						
83	1	ARGUS SKI						
84	1	ARGUS SKI						
85	1	ARGUS SKI						
86	1	ARGUS SKI						
87	1	ARGUS SKI						
88	1	ARGUS SKI						
89	1	ARGUS SKI						
90	1	ARGUS SKI						
91	1	ARGUS SKI						
92	1	ARGUS SKI						
93	1	ARGUS SKI						
94	1	ARGUS SKI						
95	1	ARGUS SKI						
96	1	ARGUS SKI						
97	1	ARGUS SKI						
98	1	ARGUS SKI						
99	1	ARGUS SKI						
100	1	ARGUS SKI						

ARGUS SKI INSTALLATION		AVIAT RUSKY A-1	
Part No.	21105	Rev.	1
Material	Steel	Finish	Paint
Quantity	1	Unit	Each
Drawn	21105	Checked	21105
Approved	21105	Disapproved	21105
ARGUS SKI INSTALLATION		AVIAT RUSKY A-1	
Part No.	21105	Rev.	1
Material	Steel	Finish	Paint
Quantity	1	Unit	Each
Drawn	21105	Checked	21105
Approved	21105	Disapproved	21105