

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A22NM
Revision 10
A-1
A-1A
A-1B
April 30, 1998

TYPE CERTIFICATE DATA SHEET NO. A22NM

This data sheet which is part of Type Certificate No. A22NM prescribes conditions and limitations under which the product for which the type certificate was issued meets the Airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: Sky International Inc. (See Note 11)
672 South Washington Street
Afton, Wyoming 83110

Model A-1, 2PCLM (normal category), Approved May 1, 1987

Engine	Lycoming O-360-C1G (180 h.p.), or Lycoming O-360-A1P (180 h.p.)								
Fuel	100/100LL grade aviation gasoline								
Engine Limits	For all operations, 2700 r.p.m								
Propeller and Propeller Limits	Hartzell HC-C2YK-1BF/F7666A (Constant Speed) Diameter not over 76 in., not under 72 in. (See Note 3) Pitch setting at 30 in. station low 11.7° ± .2°, high 29.0° ± 1.0°, (see note 9) Hartzell spinner assy 836-60 (Required). Hartzell governor V3-6 Placard required: " AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM "								
Airspeed Limits (CAS)	<table border="0"> <tr> <td>Never Exceed</td> <td>150 mph (130 kts)</td> </tr> <tr> <td>Maximum Structural Cruising</td> <td>119 mph (103 kts)</td> </tr> <tr> <td>Maneuvering</td> <td>94 mph (81 kts)</td> </tr> <tr> <td>Flaps Extended</td> <td>76 mph (66 kts)</td> </tr> </table>	Never Exceed	150 mph (130 kts)	Maximum Structural Cruising	119 mph (103 kts)	Maneuvering	94 mph (81 kts)	Flaps Extended	76 mph (66 kts)
Never Exceed	150 mph (130 kts)								
Maximum Structural Cruising	119 mph (103 kts)								
Maneuvering	94 mph (81 kts)								
Flaps Extended	76 mph (66 kts)								
C.G. Range	(+74.5) to (+78.4) at 1800 lb. (+72.5) to (+78.4) at 1500 lb. and below Straight line variation between points given								

Page No.	1	2	3	4	5	6	7
Rev. No.	10	10	10	10	10	10	10

Model A-1, 2PCLM (normal category), Approved May 1, 1987 (cont'd)

Empty wt. C.G. Range	None
Datum	60 in. forward of wing leading edge
Leveling Means	Cabin door, lower sill
Maximum Weight	1800 lb.
No. of Seats	2 (1 at +72.5 and 1 at +99.0)
Maximum baggage	50 lb. (+120.0)
Fuel Capacity	52 gal. (two 26 gal. Tanks in wings at +84.0) 50. gal usable. See NOTE 1 for data on unusable fuel.
Oil Capacity	8 qts. (+25.9)
Control Surface Movements	Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$ Ailerons UP $20^{\circ} \pm 2^{\circ}$ DOWN $20^{\circ} \pm 2^{\circ}$ Rudder UP $25^{\circ} \pm 2^{\circ}$ DOWN $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$
Serial Nos. Eligible	1001 and up.
Certification Basis	Part 23 of the Federal Aviation Regulations dated February 1, 1965 as amended by 23-1 thru 23-31 (Normal Category) and FAR 36 amended thru 36-12, FAR 21 amended thru 21-57 Application for Type Certificate dated November 20, 1985. Type Certificate No. A22NM issued May 1, 1987.
Production Basis	Production Certificate No. 2NM
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following items of equipment are required: 1. FAA Approved Airplane Flight Manual 2. Stall Warning indicator. 3. Cylinder head temperature gage.

Model A-1A, 2PCLM (normal category), Approved January 28, 1998

The A-1A is a derivative model of the A-1. The A-1A has a gross weight of 1890 lbs. The airframe has been modified structurally to accept this higher gross weight.

Engine	Lycoming O-360-A1P (180 h.p.)
Fuel	100/100LL grade aviation gasoline
Engine Limits	For all operations, 2700 r.p.m
Propeller and Propeller Limits	Hartzell HC-C2YK-1BF/F7666A (Constant Speed) Diameter not over 76 in., not under 72 in. (See Note 3) Pitch setting at 30 in. station low $11.7^{\circ} \pm .2^{\circ}$, high $29.0^{\circ} \pm 1.0^{\circ}$, Hartzell spinner assy 836-60 (Required). Hartzell governor V3-6 Placard required: " AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM "
Airspeed Limits (CAS)	Never Exceed 153 mph (133 kts) Maximum Structural Cruising 122 mph (106 kts) Maneuvering 99 mph (86 kts) Flaps Extended 80 mph (70 kts)
C.G. Range	(+74.5) to (+78.4) at 1890 lb. (+72.5) to (+78.4) at 1500 lb. and below Straight line variation between points given
Empty wt. C.G. Range	None
Datum	60 in. forward of wing leading edge
Leveling Means	Cabin door, lower sill
Maximum Weight	1890 lb.
No. of Seats	2 (1 at +72.5 and 1 at +99.0)
Maximum baggage	50 lb. (+120.0)
Fuel Capacity	52 gal. (two 26 gal. Tanks in wings at +84.0) 50. gal usable. See NOTE 1 for data on usable fuel.
Oil Capacity	8 qts. (+25.9)

Model A-1A, 2PCLM (normal category), Approved May 1, 1987 (cont'd)

Control Surface Movements	Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$ Ailerons UP $20^{\circ} \pm 2^{\circ}$ DOWN $20^{\circ} \pm 2^{\circ}$ Rudder UP $25^{\circ} \pm 2^{\circ}$ DOWN $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$
Serial Nos. Eligible	1395 to 1999.
Certification Basis	Part 23 of the Federal Aviation Regulations dated February 1, 1965 as amended by 23-1 thru 23-31 (Normal Category) and FAR 36 amended thru 36-12, FAR 21 amended thru 21-57 Application for Type Certificate dated August 25, 1997. Type Certificate No. A22NM issued January 28, 1998.
Production Basis	Production Certificate No. 2NM
Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following items of equipment are required: <ol style="list-style-type: none"> 1. FAA Approved Airplane Flight Manual 2. Stall Warning indicator. 3. Cylinder head temperature gage.

Model A-1B, 2PCLM (normal category), Approved January 28, 1998

The A-1B is a derivative model of the A-1. The A-1B has a gross weight of 2000 lbs. The airframe has been modified structurally to accept this higher gross weight. The C.G. envelope has been expanded forward and aft.

Engine	Lycoming O-360-A1P (180 h.p.)
Fuel	100/100LL grade aviation gasoline
Engine Limits	For all operations, 2700 r.p.m

Model A-1B, 2PCLM (normal category), Approved January 28, 1998 (cont'd)

Propeller and Propeller Limits	Hartzell HC-C2YK-1BF/F7666A (Constant Speed) Diameter not over 76 in., not under 72 in. (See Note 3) Pitch setting at 30 in. station low $11.7^\circ \pm .2^\circ$, high $29.0^\circ \pm 1.0^\circ$, Hartzell spinner assy 836-60 (Required). Hartzell governor V3-6 Placard required: " AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM "
Airspeed Limits (CAS)	Never Exceed 158 mph (137 kts) Maximum Structural Cruising 125 mph (108 kts) Maneuvering 101 mph (88 kts) Flaps Extended 80 mph (70 kts)
C.G. Range	(+73.6) to (+80.0) at 2000 lb. (+71.0) to (+80.0) at 1530 lb. and below Straight line variation between points given
Empty wt. C.G. Range	None
Datum	60 in. forward of wing leading edge
Leveling Means	Cabin door, lower sill
Maximum Weight	2000 lb.
No. of Seats	2 (1 at +72.5 and 1 at +99.0)
Maximum baggage	50 lb. (+120.0)
Fuel Capacity	52 gal. (two 26 gal. Tanks in wings at +84.0) 50. gal usable. See NOTE 1 for data on usable fuel.
Oil Capacity	8 qts. (+25.9)
Control Surface Movements	Elevator UP $29^\circ \pm 1^\circ$ DOWN $15^\circ \pm 1^\circ$ Ailerons UP $20^\circ \pm 2^\circ$ DOWN $20^\circ \pm 2^\circ$ Rudder UP $25^\circ \pm 2^\circ$ DOWN $25^\circ \pm 2^\circ$ Flaps UP 0° DOWN $30^\circ + 0^\circ, -2^\circ$
Serial Nos. Eligible	2000 and up.

Model A-1B, 2PCLM (normal category), Approved January 28, 1998 (cont'd)

Certification Basis Part 23 of the Federal Aviation Regulations dated February 1, 1965 as amended by 23-1 thru 23-31 (Normal Category) and FAR 36 amended thru 36-12, FAR 21 amended thru 21-57

Application for Type Certificate dated August 25, 1997.

Type Certificate No. A22NM issued January 28, 1998.

Production Basis Production Certificate No. 2NM

Equipment The basic required equipment as prescribed in the applicable airworthiness regulations must be installed in the aircraft for certification. In addition, the following items of equipment are required:

1. FAA Approved Airplane Flight Manual
2. Stall Warning indicator.
3. Cylinder head temperature gage.

NOTES

NOTE 1 Current Weight and balance report, together with list of equipment included in certificated empty weight must be provided for each aircraft at the time of the original certification. The certified empty weight and corresponding center of gravity location must include unusable fuel of 12.0 lb. at (+84.0)

NOTE 2 All placards specified in the FAA approved Airplane Flight Manual must be displayed in the airplane in the appropriate locations.

NOTE 3 Aircraft Flight Manual Supplement, Revision F, dated October 14, 1988, is required for propeller diameters less than 76 ".

NOTE 4 Export aircraft to Germany incorporating the Lycoming O-360-C1G engine are certified for use with a 72 inch dia. propeller, VFR day and night only, and 2550 RPM Max. continuous power, with 2700 RPM Max. take-off power for 5 minutes. Export aircraft to Austria, Germany, or Switzerland incorporating the Lycoming O-360-A1P engine must have a 72 inch dia. propeller and be limited to 2400 RPM Max. continuous power and 2700 RPM Max. continuous take-off power for 5 minutes. Aviat Aircraft Inc. Flight Manual Supplement dated December 1, 1994 or later FAA approved revision is required.

- NOTE 5 Models A-1 and A-1A are approved for use with Aero Ski Models M1500, M1800, M2000, and M3000 installed per Christen Drawing 35569. Christen Airplane Flight Manual Supplement, dated April 11, 1988, or later FAA approved revision for fixed ski operation is required.
- NOTE 6 The Model A-1, A-1A and A-1B is approved for banner and glider towing when a Schweizer tow hook is installed in accordance with Christen Drawing 35572. Christen Aircraft Flight Manual Supplement, dated September 1, 1988, or later FAA approved revision for banner and glider tow operations is required.
- NOTE 7 The Models A-1 and A-1A are approved for use with EDO 89-2000 Floats in installed in accordance with Christen Drawing 35600. Christen Aircraft Flight Manual Supplement, dated February 28, 1989, or later FAA approved revision for the floatplane configuration is required.
- NOTE 8 Models A-1 and A-1A are approved for use with Aero Ski Models R2800 retractable ski installed per Christen Drawing 35593. Christen Airplane Flight Manual Supplement, dated Nov 7, 1989, or later FAA approved revision for fixed ski operation is required.
- NOTE 9 These aircraft propellers may be reset to the page 1 setting if accomplished by an FAA approved propeller repair station. Serial Numbers 1001 thru 1222 were set to a low pitch setting of 13°, +0°, -.5°
- NOTE 10 Models A-1, A-1A and A-1B are approved for use with optional skylight panel installed in accordance with Aviat Aircraft Inc. drawing 35640.
- NOTE 11 **Aviat Aircraft Inc.**, P.O. box 1240, 672 South Washington Street, Afton, Wyoming is licensed by Sky International Inc. to manufacture and obtain airworthiness certificates for the Model A-1, A-1A, and A-1B aircraft listed in the Type Certificate Data Sheet.
- NOTE 12 Models A-1, A-1A, and A-1B are approved for use with Horizon Instruments Model P-100 Digital Engine Tachometer. Aviat Aircraft Inc. Flight Manual Supplement dated Dec. 4, 1997 or later FAA approved revision is required.
- NOTE 13 Instructions for Continued Airworthiness complying with FAR 23.1529, Must be furnished before delivery of the first airplane or issuance of a standard certificate of airworthiness, whichever occurs later.

.....END.....