

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A22NM
Revision 25
Aviat Aircraft, Inc.
A-1
A-1A
A-1B
A-1C-180
A-1C-200
September 18, 2014

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 Aviat Aircraft Inc.
672 South Washington Street
Afton, Wyoming 83110

Type Certificate Ownership Record Christen Industries transferred ownership of Type Certificate A22NM to Aviat, Inc. on April 4, 1991.

Aviat, Inc. transferred ownership of Type Certificate A22NM to White International, LTD. on December 3, 1992.

White International, LTD. transferred ownership of Type Certificate A22NM to Sky International, Inc. on January 10, 1996.

Sky International, Inc. transferred ownership to Aviat Aircraft, Inc. On February 27, 2012

I - Model A-1, 2PCLM (Normal Category), Approved May 1, 1987

Engine Lycoming O-360-C1G (180 HP), or
Lycoming O-360-A1P (180 HP)

Fuel 100/100LL grade aviation gasoline

Engine Limits For all operations, 2700 RPM

Propeller and Propeller Limits Hartzell HC-C2YK-1BF/F7666A (Constant Speed)
Diameter not over 76 in., not under 72 in.
(See NOTE 3)
Pitch settings at 30 in. station low
11.7° ± .2°, high 29.0° ± 1.0°,
(See NOTE 9)
Hartzell spinner assembly 836-60 (Required).

Hartzell governor V3-6 or S-1-16
Placard required: "**AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM**"

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Rev 25**I - Model A-1, 2PCLM (Normal Category), Approved May 1, 1987 (cont'd)**

Airspeed Limits (CAS)	Never Exceed	153 mph (133 knots)
	Maximum Structural Cruising	119 mph (103 knots)
	Maneuvering	94 mph (82 knots)
	Flaps Extended	73 mph (63 knots)
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	
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 (at +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. (at +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 LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$	
Serial Nos. Eligible	1001 to 1394	
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. A22NM	
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.	

II - 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 lb The airframe has been modified structurally to accept this higher gross weight.

Engine	Lycoming O-360-A1P (180 HP)
Fuel	100/100LL grade aviation gasoline
Engine Limits	For all operations, 2700 RPM

REV 25**II - Model A-1A, 2PCLM (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 governor V3-6 or S-1-16	
	Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM"	
Airspeed Limits (CAS)	Never Exceed	153 mph (133 knots)
	Maximum Structural Cruising	119 mph (103 knots)
	Maneuvering	99 mph (86 knots)
	Flaps Extended	
	S/N 1395 to 1429	73 mph (73 knots)
	S/N 1430 and up	80 mph (70 knots)
	(see NOTE 15)	
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 (at +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. (at +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 LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$ Flaps UP 0° DOWN $30^\circ + 0^\circ, -2^\circ$	
Serial Nos. Eligible	1395 to 1467	
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. 704NM	

REV 25**II - Model A-1A, 2PCLM (cont'd)**

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

III - 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 lb. The airframe has been modified structurally to accept this higher gross weight. The C.G. envelope has been expanded forward and aft. NOTE: See serial numbers eligible under this model.

(See Engine Option Group Configuration for optional propeller and propeller limits.)

Engine	Lycoming O-360-A1P (180 HP)
Fuel	100/100LL grade aviation gasoline
Engine Limits	For all operations, 2700 RPM
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 or S-1-16 Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM"
Airspeed Limits (CAS)	Never Exceed 153 mph (133 knots) Maximum Structural Cruising 119 mph (103 knots) Maneuvering 113 mph (98 knots) Flaps Extended 80 mph (70 knots) (See Engine Option Group Configuration for Airspeed Limits.)
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 (at +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 quarts. (at +25.9)

REV 23**III - Model A-1B, 2PCLM (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 LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$ Note: For Model A-1B, serial numbers 2285, 2288, 2289, 2291, and up, Aileron UP $15.5^{\circ} \pm 2^{\circ}$ DOWN $15.5^{\circ} \pm 2^{\circ}$
Serial Nos. Eligible	2000 and up New optional rear spar material incorporated at S/N 2001. Was 6061-T6. Is: 7075-T76. (See Engine Option Group Configuration for Serial Nos. Eligible.)
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. 704NM
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.

III.a - Engine Option Group Configuration without Flap (Normal Category), Approved August 18, 2003

(The Engine Option Group Configuration without Flap is a model A-1B, 2PCLM)

Model A-1B, effective serial numbers NF0001 through NF0006, NF0008 and above, are equipped with all of the following optional items. Several of the Notes do not apply to Engine Option Group Configuration. Note: A-1B with Engine Option Configuration requires Approved Airplane Flight Manual dated August 18, 2003 or later FAA approved revisions.

Engine	Lycoming O-320-D2A (160 HP) Type Certificate Data Sheet (TCDS) E-274
Fuel	100 or 100LL grade aviation gasoline
Engine Limits	For all operations, 2700 RPM
Propeller	Sensenich 74DM6S8-0-58
Propeller Limits	Diameter: Not over 74 in., not under 72 in. Static RPM Not over 2350 RPM, not under 2150 RPM No additional tolerance permitted. Sensenich spinner assembly C2366 (Required).
Flapless Wing	No Flaps or flap control system installed. Wing tips unique.
Unique Engine Cowl	
Approved main gear tires with this option group	6.00 x 6 4-ply, Type III tube 8.00 x 6 4-ply, Type III tube 8.50 x 6 6-ply, Type III tube

REV 23**IIIa - Engine Option Group Configuration without Flap (cont'd)**

	Aircraft with Engine Option Group are approved for Day VFR only. Aircraft with Engine Option Group equipped with Anti-Collision, Taxi/Landing, Position, and Instrument Flood Red/White lights are approved for both Day and Night VFR. Not approved for Instrument Flight Rules (IFR) operation under the provisions of § 91.205(d) of the Federal Aviation Regulations
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 LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$
	Serial Nos. Eligible NF0001 through NF0006, NF0008 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 36-24. FAR 21 amended thru 21-57.

III.b - Engine Option Group Configuration with Flap (Normal Category), Approved October 21, 2005

(The Engine Option Group Configuration with Flap is a model A-1B, 2PCLM)

Model A-1B, effective serial numbers NF0007, WF0001 and above, are equipped with all of the following optional items. Several of the Notes do not apply to Engine Option Group Configuration. Note: A-1B with Engine Option Configuration requires Approved Airplane Flight Manual dated September 23, 2005 or later FAA approved revisions.

Engine	Lycoming O-320-D2A (160 HP) Type Certificate Data Sheet (TCDS) E-274
Fuel	100 or 100LL grade aviation gasoline
Engine Limits	For all operations, 2700 RPM
Propeller	Sensenich 74DM6S8-0-58
Propeller Limits	Diameter: Not over 74 in., not under 72 in. Static RPM Not over 2350 RPM, not under 2150 RPM No additional tolerance permitted. Sensenich spinner assembly C2366 (Required).
Unique Engine Cowl	Wing with flaps effective serial numbers NF0007, WF0001 and up are equipped with balanced ailerons, without spades, long flaps, flap control system per Engineering Report 55-4, Revision D, Appendix A, dated 8-25-05 or later FAA approved revisions.
Approved main gear tires with this option group	6.00 x 6 4-ply, Type III tube 8.00 x 6 4-ply, Type III tube 8.50 x 6 6-ply, Type III tube .
	Aircraft with Engine Option Group are approved for Day VFR only. Aircraft with Engine Option Group equipped with Anti-Collision, Taxi/Landing, Position, and Instrument Flood Red/White lights are approved for both Day and Night VFR. Not approved for Instrument Flight Rules (IFR) operation under the provisions of § 91.205(d) of the Federal Aviation Regulations.
Control Surface Movements	Elevator UP $29^\circ \pm 1^\circ$ DOWN $15^\circ \pm 1^\circ$ Ailerons UP $15.5^\circ \pm 2^\circ$ DOWN $15.5^\circ \pm 2^\circ$ Rudder LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$ Flaps UP 0° DOWN $30^\circ + 0^\circ, -2^\circ$

REV 23**IIIb - Engine Option Group Configuration with Flap (cont'd)**

Serial Nos. Eligible	NF0007, WF0001 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 36-24. FAR 21 amended thru 21-57.

IV - Model A-1C-180, 2PCLM (Normal Category), Approved September 24, 2007

The A-1C-180 is a derivative model of the A-1B. The A-1C-180 has a gross weight of 2200 lb.

Structural modifications include updated landing gear per Aviat drawing 45017 (configurations: -501,-502,-503,-504,-505,-506); and tail wheel configuration using 5-leaf spring or Alaska Bushwheel 3-leaf spring configuration per Aviat drawing 37340.

An additional modification to the angle of the leading edge of the horizontal stabilizers down 3/10 of a degree using a new stabilizer "H" support tube is also incorporated. The A-1C-180 aircraft are equipped with the new wing/extended flap and spade less ailerons, new sliding windows, and the new wing flap control handle. The C.G. envelope has been reduced forward and expanded aft. NOTE: See serial numbers eligible under this model.

Engine	Lycoming O-360-A1P (180 HP)
Fuel	100/100LL grade aviation gasoline
Engine Limits	Refer to each propeller and propeller limits
Propeller and Propeller Limits	<p>MTV-15-B/205-58 (includes spinner) (Constant Speed) Diameter not over 80.7 in., not under 79.9 in. Pitch setting at 30 in. station low $7^{\circ} \pm .2^{\circ}$, high $24.0^{\circ} \pm 1.0^{\circ}$ Takeoff & maximum continuous power 2600 RPM (Engine derated to 175 HP for noise)</p> <p>Hartzell HC-C2YK-1BF/F7666A (Constant Speed) Diameter not over 76 in., not under 72 in. Pitch setting at 30 in. station low $11.7^{\circ} \pm .2^{\circ}$, high $29.0^{\circ} \pm 1.0$ Takeoff & maximum continuous power 2700 RPM Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM"</p> <p>Hartzell HC-C2YR-1N/F7605 (Constant Speed) Diameter not over 76 in., not under 76 in. Pitch setting at 30 in. station low $10.5^{\circ} \pm .2^{\circ}$, high $30.0^{\circ} \pm 1.0^{\circ}$ Takeoff & maximum continuous power 2700 RPM</p> <p>Hartzell HC-C2YR-1BF/F8477-4 (Constant Speed) Diameter not over 80 in., not under 78 in. Pitch setting at 30 in. station low $10.3^{\circ} \pm .2^{\circ}$, high $30.9^{\circ} \pm 1.0$ Takeoff & maximum continuous power 2600 RPM (Engine derated to 175 HP for noise)</p> <p>Hartzell spinner assy 836-60 or C3568-P (required for Hartzell props) Hartzell governor V3-6 or S-1-16</p>

REV 23**IV - Model A-1C-180, 2PCLM (cont'd)**

Airspeed Limits (CAS)	Never Exceed Maximum Structural Cruising Maneuvering Flaps Extended	153 mph (133 knots) 119 mph (103 knots) 113 mph (98 knots) 80 mph (70 knots)
C.G. Range	(+74.5) to (+81.0) at 2200 lb (+72.3) to (+81.0) at 1781 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	2200 lb	
No. of Seats	2 (1 at +72.5 and 1 at +99.0)	
Maximum baggage	50 lb (at +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 quarts. (at +25.9)	
Control Surface Movements	Elevator UP $29^\circ \pm 1^\circ$ DOWN $15^\circ \pm 1^\circ$ Ailerons UP $15.5^\circ \pm 2^\circ$ DOWN $15.5^\circ \pm 2^\circ$ Rudder LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$ Flaps UP 0° DOWN $30^\circ + 0^\circ, -2^\circ$	
Serial Nos. Eligible	3000+ (See NOTE 25)	
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 36-28. FAR 21 amended thru 21-57. Application for Type Certificate dated September 26, 2006 Type Certificate No. A22NM Reissued: September 24, 2007	
Production Basis	Production Certificate No. 704NM	
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.	

REV 23**IV.a - Increased Gross Weight Variant, 2PCLM (Normal Category), Approved January 27, 2012**

(The Increased Gross Weight variant is a model A-1C-180, 2PCLM.)

Model A-1C-180, effective serial numbers 3000+ are eligible for an increased in max gross weight up to 2,250 lb. No structural modifications are required to accept this higher gross weight.

The gross weight increase requires the appropriate airspeed indicator (per Aviat Aircraft Drawing No. 35401 or 38401 incorporating EO Nos. 4507 or 4508 respectively) to be installed; and the Airplane Flight Manual is replaced with the latest revision of the A-1C 180 2250 Approved Airplane Flight Manual.

Engine	Lycoming O-360-A1P (180 HP)
Fuel	100/100LL grade aviation gasoline

IVa – Increased Gross Weight Variant (cont'd)

Engine Limits	Refer to each propeller and propeller limits
Propeller and Propeller Limits	MTV-15-B/205-58 (includes spinner) (Constant Speed) Diameter not over 80.7 in., not under 79.9 in. Pitch setting at 30 in. station low $7^\circ \pm .2^\circ$, high $24.0^\circ \pm 1.0^\circ$ Takeoff & maximum continuous power 2600 RPM (Engine derated to 175 HP for noise)
	Hartzell HC-C2YK-1BF/F7666A (Constant Speed) Diameter not over 76 in., not under 72 in. Pitch setting at 30 in. station low $11.7^\circ \pm .2^\circ$, high $29.0^\circ \pm 1.0$ Takeoff & maximum continuous power 2700 RPM Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM"
	Hartzell HC-C2YR-1BF/F8477-4 (Constant Speed) Diameter not over 80 in., not under 78 in. Pitch setting at 30 in. station low $10.3^\circ \pm .2^\circ$, high $30.9^\circ \pm 1.0$ Takeoff & maximum continuous power 2600 RPM (Engine derated to 175 HP for noise)
	Hartzell spinner assy 836-60 or C3568-P (required for Hartzell props) Hartzell governor V3-6 or S-1-16
Airspeed Limits (CAS)	Never Exceed 145 mph (126 knots) Maximum Structural Cruising 115 mph (100 knots) Maneuvering 113 mph (98 knots) Flaps Extended 81 mph (70 knots)
C.G. Range	(+74.8) to (+80.0) at 2250 lb (+72.3) to (+80.0) at 1781 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

REV 23**IVa – Increased Gross Weight Variant (cont'd)**

Maximum Weight	2250 lb
No. of Seats	2 (1 at +72.5 and 1 at +99.0)
Maximum baggage	50 lb (at +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 quarts. (at +25.9)
Control Surface Movements	Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$ Ailerons UP $15.5^{\circ} \pm 2^{\circ}$ DOWN $15.5^{\circ} \pm 2^{\circ}$ Rudder LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$
Serial Nos. Eligible	3000+ (See NOTE 25)
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 36-28. FAR 21 amended thru 21-57. Application for Type Certificate dated May 7, 2010 Type Certificate No. A22NM Reissued: January 27, 2012
Production Basis	Production Certificate No. 704NM
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.

V - Model A-1C-200, 2PCLM (Normal Category), Approved September 24, 2007

The A-1C-200 is a derivative model of the A-1B. The A-1C-200 has a gross weight of 2200 lb.

Structural modifications include updated landing gear per Aviat drawing 45017 (configurations: -501,-502,-503,-504,-505,-506); and tail wheel configuration using 5-leaf spring or Alaska Bushwheel 3-leaf spring configuration per Aviat drawing 37340.

An additional modification to the angle of the leading edge of the horizontal stabilizers down 3/10 of a degree using a new stabilizer "H" support tube is also incorporated. The A-1C-200 aircraft are equipped with Lycoming IO-360-A1D6 engine, new wing/extended flap and spade less ailerons, new sliding windows, and the new wing flap control handle. The C.G. envelope has been reduced forward and expanded aft. NOTE: See serial numbers eligible under this model.

Engine	Lycoming IO-360-A1D6 (200 HP)
Fuel	100/100LL grade aviation gasoline
Engine Limits	Refer to each propeller and propeller limits

REV 23**V - Model A-1C-200, 2PCLM (cont'd)**

Propeller and Propeller Limits	<p>HC-C2YR-1BF/F8477-4 (Constant Speed) Diameter not over 80 in., not under 78.0 in. Pitch setting at 30 in. station low $10.3^\circ \pm .2^\circ$, high $30.9^\circ \pm 1.0^\circ$ Takeoff & maximum continuous power 2700 RPM</p> <p>MTV-15-B/205-58(includes spinner) (Constant Speed) Diameter not over 80.7 in., not under 79.9 in. Pitch setting at 30 in. station low $7.0^\circ \pm .2^\circ$, high $24.0^\circ \pm 1.0^\circ$ Takeoff & maximum continuous power 2650 RPM (Engine derated to 196 HP for noise)</p> <p>Hartzell spinner assembly 836-60 or C3568-P (Required with Hartzell props) Hartzell governor V3-6 or S-1-16</p>								
Airspeed Limits (CAS)	<table border="0"> <tr> <td>Never Exceed</td> <td>153 mph (133 knots)</td> </tr> <tr> <td>Maximum Structural Cruising</td> <td>119 mph (103 knots)</td> </tr> <tr> <td>Maneuvering</td> <td>113 mph (98 knots)</td> </tr> <tr> <td>Flaps Extended</td> <td>80 mph (70 knots)</td> </tr> </table>	Never Exceed	153 mph (133 knots)	Maximum Structural Cruising	119 mph (103 knots)	Maneuvering	113 mph (98 knots)	Flaps Extended	80 mph (70 knots)
Never Exceed	153 mph (133 knots)								
Maximum Structural Cruising	119 mph (103 knots)								
Maneuvering	113 mph (98 knots)								
Flaps Extended	80 mph (70 knots)								
C.G. Range	<p>(+74.5) to (+81.0) at 2200 lb (+72.3) to (+81.0) at 1781 lb and below Straight line variation between points given</p>								
Empty wt. C.G. Range	None								
Datum	60 in. forward of wing leading edge								
Leveling Means	Cabin door, lower sill								
Maximum Weight	2200 lb								
No. of Seats	2 (1 at +72.5 and 1 at +99.0)								
Maximum baggage	50 lb (at +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 quarts. (at +25.9)								
Control Surface Movements	<p>Elevator UP $29^\circ \pm 1^\circ$ DOWN $15^\circ \pm 1^\circ$ Ailerons UP $15.5^\circ \pm 2^\circ$ DOWN $15.5^\circ \pm 2^\circ$ Rudder LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$ Flaps UP 0° DOWN $30^\circ + 0^\circ, -2^\circ$</p>								
Serial Nos. Eligible	3000+ (See NOTE 25)								
Certification Basis	<p>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 36-28. FAR 21 amended thru 21-57.</p> <p>Application for Type Certificate dated September 26, 2006</p> <p>Type Certificate No. A22NM Reissued: September 24, 2007.</p>								
Production Basis	Production Certificate No. 704NM								

REV 23**V - Model A-1C-200, 2PCLM (cont'd)**

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.

V.a - Increased Gross Weight Variant, 2PCLM (Normal Category), Approved January 27, 2012

(The Increased Gross Weight variant is a model A-1C-200, 2PCLM.)

Model A-1C-200, effective serial numbers 3000+ are eligible for an increased in max gross weight up to 2,250 lb. No structural modifications are required to accept this higher gross weight.

The gross weight increase requires the appropriate airspeed indicator (per Aviat Aircraft Drawing No. 35401 or 38401 incorporating EO Nos. 4507 or 4508 respectively) to be installed; and the Airplane Flight Manual is replaced with the latest revision of the A-1C 200 2250 Approved Airplane Flight Manual.

Engine	Lycoming IO-360-A1D6 (200 HP)								
Fuel	100/100LL grade aviation gasoline								
Engine Limits	Refer to each propeller and propeller limits								
Propeller and Propeller Limits	<p>HC-C2YR-1BF/F8477-4 (Constant Speed) Diameter not over 80 in., not under 78.0 in. Pitch setting at 30 in. station low $10.3^\circ \pm .2^\circ$, high $30.9^\circ \pm 1.0^\circ$ Takeoff & maximum continuous power 2700 RPM</p> <p>MTV-15-B/205-58(includes spinner) (Constant Speed) Diameter not over 80.7 in., not under 79.9 in. Pitch setting at 30 in. station low $7.0^\circ \pm .2^\circ$, high $24.0^\circ \pm 1.0^\circ$ Takeoff & maximum continuous power 2650 RPM (Engine derated to 196 HP for noise)</p> <p>Hartzell spinner assembly 836-60 or C3568-P (Required with Hartzell props) Hartzell governor V3-6 or S-1-16</p>								
Airspeed Limits (CAS)	<table border="0"> <tr> <td>Never Exceed</td> <td>145 mph (126 knots)</td> </tr> <tr> <td>Maximum Structural Cruising</td> <td>115 mph (100 knots)</td> </tr> <tr> <td>Maneuvering</td> <td>113 mph (98 knots)</td> </tr> <tr> <td>Flaps Extended</td> <td>81 mph (70 knots)</td> </tr> </table>	Never Exceed	145 mph (126 knots)	Maximum Structural Cruising	115 mph (100 knots)	Maneuvering	113 mph (98 knots)	Flaps Extended	81 mph (70 knots)
Never Exceed	145 mph (126 knots)								
Maximum Structural Cruising	115 mph (100 knots)								
Maneuvering	113 mph (98 knots)								
Flaps Extended	81 mph (70 knots)								
C.G. Range	(+74.8) to (+80.0) at 2250 lb (+72.3) to (+80.0) at 1781 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	2250 lb								
No. of Seats	2 (1 at +72.5 and 1 at +99.0)								
Maximum baggage	50 lb (at +120.0)								

REV 23**V.a – Increased Gross Weight Variant (cont'd)**

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 quarts. (at +25.9)
Control Surface Movements	Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$ Ailerons UP $15.5^{\circ} \pm 2^{\circ}$ DOWN $15.5^{\circ} \pm 2^{\circ}$ Rudder LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$ Flaps UP 0° DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$
Serial Nos. Eligible	3000+ (See NOTE 25)
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 36-28. FAR 21 amended thru 21-57. Application for Type Certificate dated May 7, 2010 Type Certificate No. A22NM Reissued: January 27, 2012.
Production Basis	Production Certificate No. 704NM
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 certificate 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". This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM. See note under Engine Option Group Configuration for Airplane Flight Manual applicability.
This note does not apply to model A-1C-180 and A-1C-200 or their Increased Gross Weight variants.
- NOTE 4. Export aircraft to Germany incorporating the Lycoming 0-360-C1G engine are certified for use with a 72 inch diameter propeller, VFR day and night only, and 2550 RPM maximum continuous power, with 2700 RPM maximum take-off power for 5 minutes.
Export aircraft to Austria, Germany, or Switzerland incorporating the Lycoming 0-360-A1P engine must have a 72 inch diameter propeller and be limited to 2400 RPM maximum continuous power and 2700 RPM maximum continuous take-off power for 5 minutes. Aviat Aircraft Inc. Flight Manual Supplement dated December 1, 1994 or later FAA approved revision is required.
This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.
This note does not apply to model A-1C-180 and A-1C-200 or their Increased Gross Weight variants.

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- NOTE 5. Model A-1, A-1A, A-1B, are approved for use with Aero Ski Models M1500, M1800, M2000, and M3000H 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.
This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.
This note does not apply to model A-1C-180 and A-1C-200 or their increased Gross Weight variants.
- NOTE 6. Deleted
- NOTE 7. The Model A-1 is approved for use with EDO 89-2000 Floats 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. The maximum aircraft gross weight with EDO 89-2000 floats installed is 1980 pounds.
This note does not apply to model A-1C-180 and A-1C-200 or their Increased Gross Weight variants.
- NOTE 8. Models A-1, A-1A and A-1B 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 retractable ski operation is required.
This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.
This note does not apply to model A-1C-180 and A-1C-200 or their increased Gross Weight variants.
- NOTE 9. 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°.
This note does not apply to Engine Option Group Configuration of model A-1B, 2PCLM.
This note does not apply to Model A-1B, serial numbers 2285, 2288, 2289, 2291, and up.
This note does not apply to model A-1C-180 and A-1C-200 or their Increased Gross Weight variants.
- NOTE 10. Model A-1, A-1A, A-1B, A-1C-180/A-1C-200 are approved for use with optional skylight panel installed in accordance with Aviat Aircraft Inc. drawing 35640.
- NOTE 11. Deleted
- NOTE 12. Model A-1 is approved for use with Horizon Instruments Model P-1000 Digital Engine Tachometer. Aviat Aircraft Inc. Flight Manual Supplement date Dec. 4, 1997 or later FAA approved revision is required.
- NOTE 13. The following main gear tires are approved for use on models A-1, A-1A and A-1B:
6.00 x 6 4-ply Type III tube
8.00 x 6 4-ply Type III tube
8.50 x 6 6-ply Type III tube
24 x 10-6 Type III Tundra
26 x 10.5-6 Tundra and 8.50 x 6 tube

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NOTE 14. The following main gear tires are approved for use on models as shown in the table.

PROPELLER	PROPELLER NUMBER	TIRE SIZE	TUBE
HARTZELL 76" (METAL) Models & Variants: A-1C-180 A-1C-180 2250 lb	HC-C2YK-1BF/F7666A	6.00 X 6 4 TO 6 PLY 8:00 X 6 4 TO 6 PLY 8:50 X 6 4 TO 6 PLY 26 X 10.5 X 6 6 PLY 26 X 13 X 6 29 X 13 X 6 31 X 13 X 6	600 X 6 TYPE III 8:00 X 6 TYPE III 8:50 X 6 TYPE III 8:50 X 6 TYPE III TUBELESS TUBELESS TUBELESS
HARTZELL 76" (COMPOSITE) Model: A-1C-180	HC-C2YR-1N/N7605	8:00 X 6 4 TO 6 PLY 8:50 X 6 4 TO 6 PLY 26 X 10.5 X 6 6 PLY 26 X 13 X 6 29 X 13 X 6 31 X 13 X 6	600 X 6 TYPE III 8:00 X 6 TYPE III 8:50 X 6 TYPE III 8:50 X 6 TYPE III TUBELESS TUBELESS TUBELESS
HARTZELL 80" Models & Variants: A-1C-180 A-1C-200 A-1C-180 2250 lb A-1C-200 2250 lb	HC-C2YR-1BF/F8477-4	8:50 X 6 4 TO 6 PLY 26 X 10.5 X 6 6 PLY 26 X 13 X 6 29 X 13 X 6 31 X 13 X 6	8:50 X 6 TYPE III 8:50 X 6 TYPE III TUBELESS TUBELESS TUBELESS
MT (COMPOSITE) Models & Variants: A-1C-180 A-1C-200 A-1C-180 2250 lb A-1C-200 2250 lb	MTV-15-B/205-58	8:50 X 6 4 TO 6 PLY 26 X 10.5 X 6 6PLY 26 X 13 X 6 29 X 13 X 6 31 X 13 X 6	8:50 X 6 TYPE III 8:50 X 6 TYPE III TUBELESS TUBELESS TUBELESS

This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.

NOTE 15. Model A-1A S/N 1395 to 1429 are eligible for increased flap speed of 80 mph if airspeed indicator P/N 81714 is installed and Airplane Flight Manual is updated to reflect 80 mph flap speed.

NOTE 16. Models A-1A and A-1B are approved for use with Baumann Model BF- 2100 Floats installed in accordance with Aviat Aircraft Drawing 37600. The A-1 is float certified at 1980 pounds GW, the A-1A is float certified at 2079 pounds GW (1890 lb for A-1A land plane + 189 lb for floats), and the A-1B is float certified at 2200 pounds GW. FAA approved Flight Manual Supplement dated August 31, 1998 or later for above float plane configurations is required.

This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.

This note does not apply to model A-1C-180 and A-1C-200 or their Increased Gross Weight variants.

NOTE 17. Models A-1, A-1A, and A-1B are approved for use with the Alaskan Bushwheel P/N 31136, 31" Diameter Tundra tire.

Model A-1 must have the Aero Ski gear P/N 35017-503 and 35017-504 installed in conjunction with the 31" tundra tires P/N 31136.

The Scott 10" Model L3450 tail wheel must also be installed per Aviat Aircraft Drawing 35340 on the model A-1 and A-1A or per Aviat Aircraft Drawing 37340 on the Model A-1B. FAA approved Flight Manual Supplement dated September 18, 1998 or later for the Tundra Tire configuration is required.

This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.

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- NOTE 18. Models A-1A effective serial numbers 1451 and above, A-1B effective serial numbers 2007 and above, A-1B with Engine Option Group Configuration effective serial numbers NF0001 and above, and A-1C-180/A-1C-200 effective serial numbers 3000 and above are equipped for a baggage area access door located below the right hand aft side window. The door is optional for the A-1A, A-1B, A-1C-180/A-1C-200, and A-1C-180/A-1C-200 Increased Gross Weight variants and is available as a production design change only on the serial numbers listed above.
- NOTE 19. Models A-1, A-1A, A-1B, A-1C-180/A-1C-200, and A-1C-180/A-1C-200 Increased Gross Weight variants are approved for use with the Vision Microsystems Inc. VM1000 Engine Monitoring System when installed in accordance with Aviat Master Drawing List 95-0, dated 25 October 1999. Operation and maintenance in accordance with FAA Approved Airplane Flight Manual Supplement for the Vision Microsystem VM1000 Engine Monitoring System, dated 18 August 1999 and Supplemental Instructions for Continued Airworthiness - VM1000 Engine Monitoring System, dated 5 August 1999, or later revisions, are required.
This note does not apply to Engine Option Group Configuration of model A-1B, 2PCLM.
- NOTE 20. Models A-1, A-1A, A-1B, A-1C-180/A-1C-200, and A-1C-180/A-1C-200 Increased Gross Weight variants are approved for use with the Vision Microsystems Inc. VM1000 Engine Monitoring System with IFR equipment when installed in accordance with Aviat Master Drawing List 95-0, dated 25 October 1999. Operation and maintenance in accordance with FAA Approved Airplane Flight Manual Supplement for the Vision Microsystem VM1000 Engine Monitoring System, dated 18 August 1999 and Supplemental Instructions for Continued Airworthiness - VM1000 Engine Monitoring System, dated 5 August 1999, or later revisions, are required.
This note does not apply to Engine Option Group Configuration of model A-1B, 2PCLM.
- NOTE 21. Models A-1, A-1A, A-1B, A-1C-180/A-1C-200, and A-1C-180/A-1C-200 Increased Gross Weight variants are approved for use with the Aviat Aft Stowage Compartment when factory-installed in accordance with Aviat Master Drawing List 96-00-00, Revision F dated 5/28/2000, or field installed per Aviat Service Bulletin 16, dated 4/19/2000, or later approved revision.
The approved operating data for the Husky aircraft with the Aft Stowage Compartment installed is contained in the approved Airplane Flight Manual appropriate to the aircraft model, the approved Airplane Flight Manual Supplement, dated 1/26/2011, and Supplemental Instructions for Continued Airworthiness, dated 4/17/2007, or later FAA approved revisions, are required.
This note does not apply to Engine Option Group Configuration of model A-1B, 2PCLM.
- NOTE 22. Models A-1, A-1A and A-1B are approved for use with the Fluidyne Model C-2200 Retractable Skis when installed in accordance with Aviat Husky Service Bulletin 15, Fluidyne C-2200 Retractable Ski Installation and Operation; A-1/A-1A Forward CG Expansion, dated 6/14/1999. Operation and maintenance in accordance with FAA Approved Airplane Flight Manual Supplement for Fluidyne Skis, dated 6/25/1999 and Supplemental Instructions for Continued Airworthiness - Fluidyne C2200 Retractable Skis, dated 6/25/1999, or later revisions, are required.
This note does not apply to Engine Option Group Configuration of model A-1B, 2PCLM.
This note does not apply to model A-1C-180 and A-1C-200 or there increased Gross Weight variants.
- NOTE 23. Model A-1B, effective serial numbers 2285, 2288, 2289, 2291, and up are equipped with balanced ailerons, without spades, and longer flaps per Master Changed Drawing List Document 2000-200-1, Revision A, dated February 15, 2005 or later FAA approved revisions. Approved Airplane Flight Manual, Revision C, dated February 25, 2005, or later FAA approved revision is required. Note 9 does not apply to this configuration of Model A-1B.
- NOTE 24. Models A-1, A-1A, A-1B, A-1C-180/A-1C-200, and A-1C-180/A-1C-200 Increased Gross Weight variants are approved for flight with both the upper and lower doors open up to Vne.

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- NOTE 25. Model A-1C 180 and A-1C 200, S/N 3000+ are eligible for an increased max gross weight of 2,250 lb if appropriate airspeed indicator (per Aviat Aircraft Drawing No. 35401 or 38401 incorporating EO Nos. 4507 or 4508 respectively) is installed. Maintenance and operation compliance is required under Supplemental Instructions for Continued Airworthiness document AA-A1C-2250-800 revision A dated 08/26/2011 or later FAA accepted revision, and the Airplane Flight Manual Document A-1C-180 document 70467-001 Revision IR, dated 01/24/2012, or A-1C-200 document 70468-001 Revision IR, dated 01/20/2012 or later FAA approved revision.
- NOTE 26. Models A-1, A-1A, A-1B, and A-1C-180/-200 Increased Gross Weight variants are approved for use with glider/banner Tow hook when installed by a certified A&P Mechanic in accordance with Aviat assembly drawing 35572-501, Revision C or later FAA approved revision
This note does not apply to Engine Option Group Configurations of model A-1B, 2PCLM.
- NOTE 27 Model A-1C-180 or A-1C-200, S/N 3000 and up are approved for use with JP Instruments EDM 930, Primary Engine Data with Garmin G500 or G600 Primary Flight Display (PFD) with multi function display (MFD) when installed at the factory in accordance with Aviat Aircraft Inc. drawing No. 38401 revision E dated 02 January 2013 or later FAA approved revision and Flight Manual Supplement document No. AAI-G500-2009-005 revision IR dated 03/30/2010 or later FAA approved revision. Maintenance compliance is required under Aviat Aircraft Inc. Instructions for Continued Airworthiness document No. 70192-006 revision D dated 7 AUG 2012 or later FAA accepted revision. Garmin G500 PFD/MFD system Instructions for Continued Airworthiness document No. 190-01102-00 revision 2 or Garmin G600 PFD/MFD System Instructions for Continued Airworthiness document 190-00601-00 revision A or latter FAA accepted revision.
- NOTE 28. Model A-1C-180 or A-1C-200, S/N 3085 and 3141 and up are approved for use with rebound damping landing gear strut installation. Maintenance and operation compliance is required under Supplemental Instructions for Continued Airworthiness document AA-A1C-LG-801 revision A, dated 12/28/2011 or later FAA accepted revision, and the Airplane Flight Manual Supplement Document No. AA-A1C-811 Revision IR, dated 01/20/2012, or later FAA approved revision.

...END...