



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

|                           |  |  |
|---------------------------|--|--|
| Airspeed Limits (CAS)     | Never Exceed<br>Maximum Structural Cruising<br>Maneuvering<br>Flaps Extended   | 153 mph (133 knots)<br>119 mph (103 knots)<br>94 mph (82 knots)<br>73 mph (63 knots) |
| C.G. Range                | (+74.5) to (+78.4) at 1800 lbs<br>(+72.5) to (+78.4) at 1500 lbs and below<br>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 lbs   |  |
| 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)<br>50 gal usable. See NOTE 1 for data on unusable fuel.  |  |
| Oil Capacity              | 8 qts. (+25.9)   |  |
| Control Surface Movements | Elevator UP 29°±1° DOWN 15°±1°<br>Ailerons UP 20° ± 2° DOWN 20° ± 2°<br>Rudder LEFT 25° ± 2° RIGHT 25° ± 2°<br>Flaps UP 0° DOWN 30° + 0°, -2°  |  |
| 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.<br><br>Application for Type Certificate dated November 20, 1985.<br><br>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:<br>1. FAA Approved Airplane Flight Manual<br>2. Stall Warning indicator.<br>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 lbs. 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      |

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

|                                   |  |                     |
|-----------------------------------|--|---------------------|
| Propeller and<br>Propeller Limits | Hartzell HC-C2YK-1BF/F7666A (Constant Speed)<br>Diameter not over 76 in., not under 72 in.<br>(See Note 3)<br>Pitch setting at 30 in. station<br>low $11.7^\circ \pm .2^\circ$ , high $29.0^\circ \pm 1.0^\circ$<br><br>Hartzell governor V3-6<br><b>Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN<br/>2000-2250 RPM"</b> |                     |
| 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 14)  |                     |
| C.G. Range                        | (+74.5) to (+78.4) at 1890 lbs<br>(+72.5) to (+78.4) at 1500 lbs and below<br>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 lbs   |                     |
| No. of Seats                      | 2 (1 at +72.5 and 1 at +99.0)  |                     |
| Maximum baggage                   | 50 lbs (+120.0)  |                     |
| Fuel Capacity                     | 52 gal. (two 26 gal. Tanks in wings at +84.0)<br>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 $15^\circ \pm 1^\circ$<br>Ailerons UP $20^\circ \pm 2^\circ$ DOWN $20^\circ \pm 2^\circ$<br>Rudder LEFT $25^\circ \pm 2^\circ$ RIGHT $25^\circ \pm 2^\circ$<br>Flaps UP $0^\circ$ 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<br>by 23-1 thru 23-31 (Normal Category) and FAR 36 amended thru 36-12. FAR<br>21 amended thru 21-57.<br><br>Application for Type Certificate dated August 25, 1997.<br><br>Type Certificate No. A22NM issued January 28, 1998.                       |                     |
| Production Basis                  | Production Certificate No. 704NM   |                     |

**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 lbs. 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)<br>Diameter not over 76 in., not under 72 in. (See Note 3)<br>Pitch setting at 30 in. station<br>low $11.7^\circ \pm .2^\circ$ , high $29.0^\circ \pm 1.0^\circ$<br><br>Hartzell spinner assy 836-60 (Required).<br>Hartzell governor V3-6<br><br>Placard required: " <b>AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM</b> " |
| Airspeed Limits (CAS)          | Never Exceed 153 mph (133 knots)<br>Maximum Structural Cruising 119 mph (103 knots)<br>Maneuvering 113 mph (98 knots)<br>Flaps Extended 80 mph (70 knots)<br>(See Engine Option Group Configuration for Airspeed Limits.)   |
| C.G. Range                     | (+73.6) to (+80.0) at 2000 lbs<br>(+71.0) to (+80.0) at 1530 lbs and below<br>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 lbs  |
| 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)<br>50 gal usable. See NOTE 1 for data on unusable fuel.   |
| Oil Capacity                   | 8 quarts. (+25.9)   |

**III - Model A-1B, 2PCLM (cont'd)**

|                           |   |
|---------------------------|---|
| Control Surface Movements | Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$<br>Ailerons UP $20^{\circ} \pm 2^{\circ}$ DOWN $20^{\circ} \pm 2^{\circ}$<br>Rudder LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$<br>Flaps UP $0^{\circ}$ DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$<br><b>Note:</b> For Model A-1B, serial numbers 2285, 2288, 2289, 2291, and up,<br>Aileron UP $15.5^{\circ} \pm 2^{\circ}$ DOWN $15.5^{\circ} \pm 2^{\circ}$ |
| Serial Nos. Eligible      | 2000 and up<br>New optional rear spar material incorporated at S/N 2001. Was 6061-T6. Is: 7075-T76.<br>(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.<br><br>Application for Type Certificate dated August 25, 1997.<br><br>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:<br>1. FAA Approved Airplane Flight Manual<br>2. Stall Warning indicator.<br>Cylinder head temperature gage.   |

**IIIa - 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. Notes 3, 4, 5, 6, 8, 9, 13, 15, 16, 18, 19, 20, and 21 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)<br>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.<br>Static RPM Not over 2350 RPM, not under 2150 RPM<br>No additional tolerance permitted.<br>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<br>8.00 x 6 4-ply, Type III tube<br>8.50 x 6 6-ply, Type III tube   |

**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.

**IIIb - 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. Notes 3, 4, 5, 6, 8, 9, 13, 15, 16, 18, 19, 20, and 21 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).

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.

## 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

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  $0^\circ$  DOWN  $30^\circ + 0^\circ, -2^\circ$

**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 lbs. Structural modifications made to accept this higher gross weight are new landing gear and a new five leaf tail spring. 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)<br/> Diameter not over 80.7 in., not under 79.9 in.<br/> Pitch setting at 30 in. station<br/> low <math>7^{\circ} \pm .2^{\circ}</math>, high <math>24.0^{\circ} \pm 1.0^{\circ}</math></p> <p>Takeoff &amp; maximum continuous power 2600 RPM<br/> (Engine derated to 175 HP for noise)</p> <p>Hartzell HC-C2YK-1BF/F766A (Constant Speed)<br/> Diameter not over 76 in., not under 72 in.<br/> Pitch setting at 30 in. station<br/> low <math>11.7^{\circ} \pm .2^{\circ}</math>, high <math>29.0^{\circ} \pm 1.0</math><br/> Takeoff &amp; maximum continuous power 2700 RPM</p> <p><b>Placard required: "AVOID CONTINUOUS OPERATIONS BETWEEN 2000-2250 RPM"</b></p> <p>Hartzell HC-C2YR-1N/F7605 (Constant Speed)<br/> Diameter not over 76 in., not under 76 in.<br/> Pitch setting at 30 in. station<br/> low <math>10.5^{\circ} \pm .2^{\circ}</math>, high <math>30.0^{\circ} \pm 1.0^{\circ}</math></p> <p>Takeoff &amp; maximum continuous power 2700 RPM</p> <p>Hartzell HC-C2YR-1BF/F8477-4 (Constant Speed)<br/> Diameter not over 80 in., not under 78 in.<br/> Pitch setting at 30 in. station<br/> low <math>10.3^{\circ} \pm .2^{\circ}</math>, high <math>30.9^{\circ} \pm 1.0</math></p> <p>Takeoff &amp; maximum continuous power 2600 RPM<br/> (Engine derated to 175 HP for noise)</p> <p>Hartzell spinner assy 836-60 or C3568-P (required for Hartzell props)<br/> Hartzell governor V3-6</p> |              |                     |                             |                     |             |                    |                |                   |
| Airspeed Limits (CAS)          | <table> <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)  |              |                     |                             |                     |             |                    |                |                   |

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

|                           |  |
|---------------------------|--|
| C.G. Range                | (+74.5) to (+81.0) at 2200 lbs<br>(+72.3) to (+80.0) at 1781 lbs and below<br>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 lbs   |
| 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)<br>50 gal usable. See NOTE 1 for data on unusable fuel.  |
| Oil Capacity              | 8 quarts. (+25.9)  |
| Control Surface Movements | Elevator UP $29^{\circ} \pm 1^{\circ}$ DOWN $15^{\circ} \pm 1^{\circ}$<br>Ailerons UP $15.5^{\circ} \pm 2^{\circ}$ DOWN $15.5^{\circ} \pm 2^{\circ}$<br>Rudder LEFT $25^{\circ} \pm 2^{\circ}$ RIGHT $25^{\circ} \pm 2^{\circ}$<br>Flaps UP $0^{\circ}$ DOWN $30^{\circ} + 0^{\circ}, -2^{\circ}$                      |
| Serial Nos. Eligible      | 3000 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 36-28. FAR 21 amended thru 21-57.<br><br>Application for Type Certificate dated September 26, 2006<br><br>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:<br>1. FAA Approved Airplane Flight Manual<br>2. Stall Warning indicator.<br>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 lbs. Structural modifications made to accept this higher gross weight are new landing gear and a new five leaf tail spring. 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 |

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

|                                   |  |              |                     |                             |                     |             |                    |                |                   |
|-----------------------------------|--|--------------|---------------------|-----------------------------|---------------------|-------------|--------------------|----------------|-------------------|
| Propeller<br>and Propeller Limits | <p>HC-C2YR-1BF/F8477-4 (Constant Speed)<br/> Diameter not over 80 in., not under 78.0 in.<br/> Pitch setting at 30 in. station<br/> low <math>10.3^\circ \pm .2^\circ</math>, high <math>30.9^\circ \pm 1.0^\circ</math><br/> Takeoff &amp; maximum continuous power 2700 RPM</p> <p>MTV-15-B/205-58(includes spinner) (Constant Speed)<br/> Diameter not over 80.7 in., not under 79.9 in.<br/> Pitch setting at 30 in. station<br/> low <math>7.0^\circ \pm .2^\circ</math>, high <math>24.0^\circ \pm 1.0^\circ</math><br/> Takeoff &amp; maximum continuous power 2650 RPM<br/> (Engine derated to 196 HP for noise)</p> <p>Hartzell spinner assembly 836-60 or C3568-P (Required with Hartzell props)<br/> Hartzell governor V3-6</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 lbs<br/> (+72.3) to (+80.0) at 1781 lbs and below<br/> 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 lbs.  |              |                     |                             |                     |             |                    |                |                   |
| 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)<br>50 gal usable. See NOTE 1 for data on unusable fuel.  |              |                     |                             |                     |             |                    |                |                   |
| Oil Capacity                      | 8 quarts. (+25.9)  |              |                     |                             |                     |             |                    |                |                   |
| Control Surface Movements         | <p>Elevator UP <math>29^\circ \pm 1^\circ</math> DOWN <math>15^\circ \pm 1^\circ</math><br/> Ailerons UP <math>15.5^\circ \pm 2^\circ</math> DOWN <math>15.5^\circ \pm 2^\circ</math><br/> Rudder LEFT <math>25^\circ \pm 2^\circ</math> RIGHT <math>25^\circ \pm 2^\circ</math><br/> Flaps UP <math>0^\circ</math> DOWN <math>30^\circ + 0^\circ, -2^\circ</math></p>   |              |                     |                             |                     |             |                    |                |                   |
| Serial Nos. Eligible              | 3000 and up  |              |                     |                             |                     |             |                    |                |                   |
| Certification Basis               | <p>Part 23 of the Federal Aviation Regulations dated February 1, 1965 as amended<br/> by 23-1 thru 23-31 (Normal Category) and FAR 36 amended thru 36-28. FAR<br/> 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   |              |                     |                             |                     |             |                    |                |                   |

**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: <ol style="list-style-type: none"><li>1. FAA Approved Airplane Flight Manual</li><li>2. Stall Warning indicator.</li><li>3. Cylinder head temperature gage.</li></ol> |
|-----------|---|

**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
- NOTE 4. Export aircraft to Germany incorporating the Lycoming 0-360-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 0-360-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. 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.
- NOTE 5. Model A-1, A-1A and 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
- NOTE 6. The Model A-1, A-1A and A-1B is approved for banner and glider towing when a approved tow hook is installed in accordance with Aviat Drawing 35572. Aviat Aircraft Flight Manual Supplement, dated September 1, 1988, or later FAA approved revision for banner and glider tow operations 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
- 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.
- 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.
- 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 9 (cont'd)**

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

- 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. Aviat Aircraft Inc., P.O. box 1240 , 672 South Washington Street, Afton, Wyoming is licensed by Sky International Inc. to manufacture and obtain airworthiness certificate for the Model A-1, A-1A, A-1B, A-1C-180/A-1C-200 aircraft listed in the Type Certificates Data Sheet.
- 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
- NOTE 14. The following main gear tires are approved for use on models A-1C-180/A-1C-200  
 Per applicable propeller

| PROPELLER   | PROPELLER NUMBER    | TIRE SIZE   | TUBE  |
|---|---------------------|---|---|
| HARTZELL 76"<br>(METAL)<br>Model<br>A-1C-180          | HC-C2YK-1BF/F7666A  | 6.00 X 6 4 TO 6 PLY<br>8:00 X 6 4 TO 6 PLY<br>8:50 X 6 4 TO 6 PLY<br>26 X 10.5 X 6 6 PLY<br>26 X 13 X 6<br>29 X 13 X 6<br>31 X 13 X 6 | 600 X 6 TYPE III<br>8:00 X 6 TYPE III<br>8:50 X 6 TYPE III<br>8:50 X 6 TYPE III<br>TUBELESS<br>TUBELESS<br>TUBELESS |
| HARTZELL 76"<br>(COMPOSITE)<br>Model<br>A-1C-180      | HC-C2YR-1N/N7605    | 8:00 X 6 4 TO 6 PLY<br>8:50 X 6 4 TO 6 PLY<br>26 X 10.5 X 6 6 PLY<br>26 X 13 X 6<br>29 X 13 X 6<br>31 X 13 X 6                        | 600 X 6 TYPE III<br>8:00 X 6 TYPE III<br>8:50 X 6 TYPE III<br>8:50 X 6 TYPE III<br>TUBELESS<br>TUBELESS<br>TUBELESS |
| HARTZELL 80"<br>Model<br>A-1C-180 or<br>A-1C-200      | HC-C2YR-1BF/F8477-4 | 8:50 X 6 4 TO 6 PLY<br>26 X 10.5 X 6 6 PLY<br>26 X 13 X 6<br>29 X 13 X 6<br>31 X 13 X 6   | 8:50 X 6 TYPE III<br>8:50 X 6 TYPE III<br>TUBELESS<br>TUBELESS<br>TUBELESS  |
| MT<br>(COMPOSITE)<br>Model<br>A-1C-180 or<br>A-1C-200 | MTV-15-B/205-58     | 8:50 X 6 4 TO 6 PLY<br>26 X 10.5 X 6 6PLY<br>26 X 13 X 6<br>29 X 13 X 6<br>31 X 13 X 6  | 8:50 X 6 TYPE III<br>8:50 X 6 TYPE III<br>TUBELESS<br>TUBELESS<br>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 lbs. for A-1A land plane + 189 lbs. for floats),

**NOTE 16 (cont'd)**

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/ A-1C-200

- 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.
- 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, and A-1C-180/A-1C-200 and is available as a production design change only on the serial numbers listed above.
- NOTE 19. Models A-1, A-1A, A-1B, and A-1C-180/A-1C-200 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, and A-1C-180/A-1C-200 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, Revision A dated 25 October 1999. Operation and maintenance in accordance with FAA Approved Airplane Flight Manual Supplement for the Vision Microsystems VM1000 Engine Monitoring System, dated 18 August 1999 and Supplemental Instructions for Continued Airworthiness - VM1000 Engine Monitoring System, Revision B 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, and A-1C-180/A-1C-200 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 as Aviat Kit A-1-351 Revision D. Operation and maintenance in accordance with FAA Approved Airplane Flight Manual Supplement for Models A-1, A-1A, A-1B with the Aft Stowage Compartment Installed, dated 4/28/2000 and Supplemental Instructions for Continued Airworthiness - Aft Stowage Compartment, dated 4/17/2000, or later 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/ A-1C-200
- 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,

**NOTE 23 (cont'd)**

2005, or later FAA approved revision is required.  
Note 9 does not apply to this configuration of Model A-1B.

NOTE 24. Models A-1C 180 and A-1C 200, both the upper and lower doors may be opened and the aircraft flown to Vne except serial numbers 3036, 3048, 3050, and up with the 38001-501 fuselage. Fuselage 3036, 3048, 3050, and up have a modified fuselage to accommodate a larger door, and the fuselage cluster behind the instrument panel has been moved. These modifications are on the 38001-501 fuselage drawing.

**...END...**