DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

TYPE CERTIFICATE DATA SHEET A18SW

This data sheet, which is part of Type Certificate No. A18 SW, 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: M7 Aerospace LP  
10823 N. E. Entrance  
San Antonio, Texas 78216

Type Certificate Holder Record  


Engines  
Two Garrett (Airesearch) TPE331-11U-612G

Fuel  
Aviation turbine fuels  
Garrett Specification
Type A  
EMSS3111
Type A-1  
EMSS3112
Class A-JP4 and  
EMSS3113
Class B-Type B  
EMSS3116
Type JP-5  
EMSS3112
Type JP-8
(Fuel shall conform to the specification as listed or to subsequent revisions thereof).  
(See Note 3)

Oil  
MIL-L-23699B conforming to Garrett Engine Division Specification EMSS3110 Type II.

Engine Limits  
Static Sea Level Ratings.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Take-off (5-min) Dry</td>
<td>1,000</td>
<td>41730*</td>
<td>1591*</td>
<td>650</td>
</tr>
<tr>
<td>Take-off (5-min) Wet</td>
<td>1,100</td>
<td>41730*</td>
<td>1591*</td>
<td>650</td>
</tr>
<tr>
<td>Max Continuous-Dry Starting Limit (1-sec)</td>
<td>1,000</td>
<td>41730*</td>
<td>1591*</td>
<td>650</td>
</tr>
</tbody>
</table>

* (See Note 4)

Oil Temps  
Minus 40°C to 110°C (normal operations)  
Minus 40°C to 127°C (ground operations only)
### Propeller and Number

- **Make**: McCauley
- **Model**: 4HFR34C652/()-L106LA-0
- **Diameter**: 106 inches
- **Pitch At**: 30 in. station

#### McCauley Propeller

<table>
<thead>
<tr>
<th>Assembly Number</th>
<th>Feathered</th>
<th>Flight Idle</th>
<th>Start Locks</th>
<th>Full Reverse</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-5928</td>
<td>88.9° ± 0.5°</td>
<td>15.0° ± 0.2°</td>
<td>9.0° ± 0.5°</td>
<td>-5.0° ± 0.5°</td>
</tr>
<tr>
<td>D-6933</td>
<td>88.5° ± 0.5°</td>
<td>15.0° ± 0.2°</td>
<td>6.0° ± 0.5°</td>
<td>-5.0° ± 0.5°</td>
</tr>
</tbody>
</table>

#### Airspeed Limits

<table>
<thead>
<tr>
<th>Altitude (ft.)</th>
<th>Speed (Knots CAS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum</td>
<td>17,800</td>
</tr>
<tr>
<td>Operating</td>
<td>18,000</td>
</tr>
<tr>
<td>Speed</td>
<td>20,000</td>
</tr>
<tr>
<td></td>
<td>23,000</td>
</tr>
<tr>
<td></td>
<td>25,000</td>
</tr>
<tr>
<td>Maneuvering @ 16,000#</td>
<td>all</td>
</tr>
<tr>
<td>Flaps Full Ext.</td>
<td>166</td>
</tr>
<tr>
<td>1/2 Ext.</td>
<td>180</td>
</tr>
<tr>
<td>1/4 Ext.</td>
<td>215</td>
</tr>
<tr>
<td>Ldg Gear Ext.</td>
<td>176</td>
</tr>
<tr>
<td>Ldg Gear Oper.</td>
<td>176</td>
</tr>
</tbody>
</table>

#### C.G. Range

- **262.8 (16.41% MAC) to 277.0 (36.0% MAC) at 16,500 lbs.**
- **257.0 (8.40% MAC) to 277.0 (36.0% MAC) at 11,000 lbs. and below.**
- **Straight line variation between points given.**

**Note:** Gear Retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear down envelope.

#### Empty Weight

- **None**

#### C.G. Range

<table>
<thead>
<tr>
<th>Maximum Weight (lbs.)</th>
<th>Ramp</th>
<th>16,600</th>
</tr>
</thead>
<tbody>
<tr>
<td>(See Note 6)</td>
<td>Take-off</td>
<td>16,500</td>
</tr>
<tr>
<td></td>
<td>Landing</td>
<td>15,675</td>
</tr>
<tr>
<td></td>
<td>Max. Zero Fuel</td>
<td>14,500</td>
</tr>
</tbody>
</table>

#### Maximum Operating Altitude

- **25,000 feet.**

#### Minimum Crew

- **One pilot except as otherwise required by the Airplane Flight Manual (See Note 9).**

#### No. Seats

- **Maximum 21 (crew at + 111.0). (Maximum of 19 passengers). See AFM for loading instructions for crew and passenger loading.**

#### Maximum Baggage and/or Equipment

- **Rear Compartment**: 850 lbs. (+473.4)
- **Nose Compartment**: 800 lbs. (+46.7)

**Local loading on cargo and passenger compartment floor:** 150 lbs./sq. ft.

**Fuel Capacity**
652 gal. total (324 gal. usable in each of 2 wing tanks).
See Note 1 for data on unusable fuel.

**Oil Capacity**
14.1 qt. total (3.8 qt. usable in each engine oil tank).
See Note 1 for data on unusable oil.

**Control Surface**

<table>
<thead>
<tr>
<th>Surface</th>
<th>Wings Flaps</th>
<th>Main Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aileron</td>
<td>18.5° ± 1°</td>
<td>21.5° ± 1°</td>
</tr>
<tr>
<td>Elevator</td>
<td>30° ± 1°</td>
<td>15° ± 1°</td>
</tr>
<tr>
<td>Rudder</td>
<td>25° ± 1°</td>
<td>25° ± 1°</td>
</tr>
<tr>
<td>Stabilizer (mechanical stops):</td>
<td>2.40° ± 0.20° L.E. up</td>
<td>7.80° ± 0.20° L.E. down</td>
</tr>
<tr>
<td>(electrical stops):</td>
<td>0.2° ± 0.05° before mechanical stops</td>
<td></td>
</tr>
</tbody>
</table>

**Tabs (Main surface in Neutral)**

<table>
<thead>
<tr>
<th>Surface</th>
<th>20° + 2°, -1° up</th>
<th>20° + 2°, -1° down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aileron</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rudder</td>
<td>25° ± 1.5° right</td>
<td>25° ± 1.5° left</td>
</tr>
</tbody>
</table>

**Serial Nos.**
CC-790 and up. (See Note 8)

**Datum**
Located 274.1 inches forward of wing main (forward) spar centerline.

**Leveling Means**
Lateral: Nose baggage compartment door sill.
Longitudinal: Nose baggage compartment floor.

**Certification Basis**
FAR Part 23 through Amendment 23-34 plus Amendment 23-39; equivalent safety finding per FAA letter dated September 20, 1990; FAR Part 36, SFAR 27 through Amendment 5 (See Note 6). Approved for flight into known icing in accordance with FAR 23.1419.

**Production Basis**
Production Certificate No. 6SW (Spares only)

**Equipment**
The basic required equipment, as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10044 "Equipment List, Model SA227-CC" listing of all additional required equipment as well as optional installations approved by the FAA. (See Note 9)

II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11).

**Engines**
Two Garrett (Airesearch) TPE331-12UA-701G or TPE331-12UAR-701G or TPE331-12UHR-701G.

**Fuel**
Aviation turbine fuels
Garrett Specification
Type A
Type A-1
Class A-JP4 and Class B-Type B
Type JP-5
Type JP-8
(Fuel shall conform to the specification as listed or to subsequent revisions thereof). (See Note 3).

**Oil**
MIL-L-23699B conforming to Garrett Engine Division Specification EMS531100 Type II.
### Engine Limits

<table>
<thead>
<tr>
<th>Item</th>
<th>Shaft Horse Power (S.H.P.)</th>
<th>Gas Gen. Speed (R.P.M.)</th>
<th>Prop Shaft Speed (R.P.M.)</th>
<th>Exhaust Gas Temp. (EGT) (°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take-off (5-min) Dry</td>
<td>1,100</td>
<td>41730*</td>
<td>1591*</td>
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<td>Take-off (5-min) Wet</td>
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### Oil Temps

- Minus 40°C to 110°C (normal operations)
- Minus 40°C to 127°C (ground operations only)

### Propeller and Propeller limits

<table>
<thead>
<tr>
<th>Item</th>
<th>Number 2</th>
<th>Number 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make McCauley</td>
<td>McCauley</td>
<td></td>
</tr>
<tr>
<td>Model 4HFR34C663(/)()-L106KA-0</td>
<td>4HFR34C652(/)()-L106LA-0</td>
<td></td>
</tr>
<tr>
<td>Diameter</td>
<td>106 inches</td>
<td>106 inches</td>
</tr>
<tr>
<td>Pitch At</td>
<td>30 in. station</td>
<td>30 in. station</td>
</tr>
</tbody>
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### McCauley Propeller Assembly Number

- D-5928
- D-6933
- D-7274

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<thead>
<tr>
<th>Item</th>
<th>Feathered</th>
<th>Flight Idle</th>
<th>Start Locks</th>
<th>Full Reverse</th>
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<td>Angle (°)</td>
<td>88.9° ± 0.5°</td>
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<td>9.0° ± 0.5°</td>
<td>-5.0° ± 0.5°</td>
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<tr>
<td>Angle (°)</td>
<td>88° ± 0.2°</td>
<td>15.0° ± 0.2°</td>
<td>6.0° ± 0.5°</td>
<td>-4.0° ± 0.2°</td>
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### Airspeed Limits

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<td>248</td>
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<td>Operating</td>
<td>18,000</td>
<td>247</td>
</tr>
<tr>
<td>Speed</td>
<td>20,000</td>
<td>237</td>
</tr>
<tr>
<td></td>
<td>23,000</td>
<td>223</td>
</tr>
<tr>
<td></td>
<td>25,000</td>
<td>214</td>
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<td>@ 16,000#</td>
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<td>Ldg Gear Ext.</td>
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### C.G. Range

- 262.8 (16.41% MAC) to 277.0 (36.0% MAC) at 16,500 lbs.
- 257.0 (8.40% MAC) to 277.0 (36.0% MAC) at 11,000 lbs. and below.

*(Inches Aft of Datum)*

Note: Gear Retraction will not move the c.g. beyond approved limits if the airplane is loaded within the gear down envelope.
II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11) (Cont’d)

Empty Weight None

C.G. Range

Maximum Weight
Ramp 16,600
Take-off 16,500
(See Note 6)
Landing 15,675
Max. Zero Fuel 14,500

Maximum Oper. Altitude 25,000 feet.

Minimum Crew One pilot except as otherwise required by the Airplane Flight Manual (See Note 9.)

No. Seats Maximum 21 (crew at + 111.0). (Maximum of 19 passengers).
See AFM for loading instructions for crew and passenger loading.

Maximum Baggage
and/or Equipment Rear Compartment: 850 lbs. (+473.4)
Nose Compartment: 800 lbs. (+46.7)

Local loading on cargo and passenger compartment floor: 150 lbs./sq. ft.

Fuel Capacity 652 gal. total (324 gal. usable in each of 2 wing tanks. See Note 1 for data on unusable fuel.

Oil Capacity 14.1 qt. total (3.8 qt. usable in each engine oil tank).
See Note 1 for data on unusable oil.

Control Surface

Wings Flaps 36° ± 1° down

Main Surface

Aileron 18.5° ± 1° up 21.5° ± 1° down
Elevator 30° ± 1° up 15° ± 1° down
Rudder 25° ± 1° right 25° ± 1° left

Stabilizer (mechanical stops): 2.40° ± .20° L.E. up 7.80° ± .20° L.E. down
(electrical stops): 0.2° ± .05° before mechanical stops

Tabs (Main surface in Neutral)

Aileron 20° ± 2°, -1° up; 20° ± 2°, -1° down
Rudder 25° ± 1.5° right; 25° ± 1.5° left

Serial Nos. DC-784 and up. (See Notes 7 and 8.)

Datum Located 274.1 inches forward of wing main (forward) spar centerline.

Leveling Means Lateral: Nose baggage compartment door sill.
Longitudinal: Nose baggage compartment floor.

Certification Basis: FAR Part 23 through Amendment 23-34 plus Amendment 23-39; equivalent safety finding per FAA letter dated September 20, 1990; FAR Part 36, SFAR 27 through Amendment 5 (See Note 6). Approved for flight into known icing in accordance with FAR 23.1419.

Production Basis: Production Certificate No. 6SW (Spares only)
II. Model SA227-DC (C-26B), 21 PCLM, Commuter Category, FAR 23, Approved September 29, 1990 (See Note 7 and 11) (Cont'd)

| Equipment | The basic required equipment, as prescribed in the applicable airworthiness regulations (See Certification Basis) must be installed in the aircraft for certification. Fairchild Drawing No. 27-10045 “Equipment List, Model SA227-DC” contains listing of all additional required equipment as well as optional installations approved by the FAA. (See Note 9) |

Note 1. Current weight and balance report, together with list of equipment included in certificated empty weight, and loading instructions when necessary, must be provided for each aircraft at the time of original certification. The airplane must be loaded so that the C.G. is within the specified limits at all times. Empty weight and corresponding center of gravity location must include:

- Unusable fuel 27 lbs. (+282)
- Unusable oil 12 lbs. (+205)
- Unusable AWI 16 lbs. (+298)

Note 2. All placards required in the approved AFM must be installed in the appropriate locations.

Note 3. Emergency use of MIL-G-5572D, 80/87, aviation gasoline permitted not to exceed 1,000 gallons per engine for each 100 hours of engine operation. Emergency use of MIL-G-5572D, Grade 100/130 (low lead), aviation gasoline permitted not exceed 250 gallons per engine for each 100 hours of engine operation with the total use limited to 7,000 gallons during any 3,000-hour period. Jet fuel and aviation gasoline may be mixed in any proportion. If 25% or more aviation gasoline is used, add 1 quart of MIL-L-6082 specification grade 1065 or 1100 piston engine oil per 100 gallons of aviation gasoline to provide fuel pump lubrication.

Note: The amount of aviation gasoline used must be recorded in the Engine Log Book. Fuel System Icing Inhibitor MIL-T-27686E fuel additive approved not to exceed 0.15 percent by volume. No fuel system anti-icing credit is allowed.

Note 4. The maximum propeller shaft overspeed limit is 1686 RPM (106%) for 5 seconds and 1615 RPM (101.5% for 5 minutes). 100% is defined as 1591 RPM.

Note 5. The Airworthiness Limitations Manual ST-UN-M003 contains overhaul times, replacements times and special inspections required for continued airworthiness.


Note 7. The C-26B is an SA227-DC airplane manufactured in accordance with Fairchild drawing 27-10048. These airplanes are identified by the letter "M" at the end of the serial number.

Note 8. The manufacturer has elected to end the serial numbers of airplanes not affected by Note 7 with the letter "B".

Note 9. Approval for single-pilot operation is based on the instrument/avionics arrangement shown by Fairchild Drawing 27-86081 or Drawing 27-88025 (C-26B). Any significant deviation from that arrangement must be evaluated for single pilot suitability.

Note 10. The SA227-CC airplane may be converted to a Model SA227-DC in accordance with FAI drawing 27-14167 initial release.

Note 11. The SA227-DC airplane may be converted to a Model SA227-CC in accordance with FAI drawing 27-14140 initial release plus EOS A-1 and A-2.

...END...