# DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

1A9
Revision 22
Taylorcraft 2000, LLC
19
F19
F21
F21A
F21B
F22
F22A
F22B
F22C
October 7, 2009

#### AIRCRAFT SPECIFICATION NO. 1A9

Type Certificate Holder Taylorcraft 2000, LLC

Dba Aircraft Taylorcraft Co., LLC

2100 Les Mauldin Rd. Brownsville, TX 78521

Type Certificate Ownership Record

Taylorcraft Corporation transferred ownership to Syncrom, Inc., on October 19, 1994. Syncrom, Inc. transferred ownership to Airborne Marketing, Inc. on January 8, 1997. Airborne Marketing transferred ownership to Lee F. Booth on April 26, 1999. Lee F. Booth, dba Taylorcraft Aerospace, transferred ownership to Harvey & Vera Patrick Foundation on May 10, 2000.

Harvey & Vera Patrick Foundation transferred ownership to Taylorcraft 2000, LLC on

August 8, 2000.

Taylorcraft 2000 LLC transferred ownership to Taylorcraft Aviation LLC on

March 5, 2003

Taylorcraft Aviation LLC, 2124 n. Central Ave., Brownsville, TX 78521 transferred

ownership to Taylorcraft 2000 LLC on May 21, 2008

Taylorcraft 2000 LLC transferred to Taylorcraft 2000 LLC Dba Aircraft Taylorcraft Co.,

LLC on October 7, 2009.

#### I - Model 19, 2 PCLM (Normal and Utility Categories), Approved June 20, 1951

Engine Continental C85-12, C85-12F

Fuel 80 Octane minimum grade aviation gasoline

Engine Limits For all operations, 2575 rpm (85 HP)

Airspeed Limits V<sub>P</sub> (Maneuvering) (Normal) 87 mph (76 knots)

(True Indicated) (Utility) 86 mph (75 knots)

 $\begin{array}{cccc} V_{no} \ (Maximum \ Structural \\ Cruising) & (Utility) & 104 \ mph & (94 \ knots) \\ V_{ne} \ (Never \ exceed) & (Normal) & 136 \ mph & (118 \ knots) \end{array}$ 

(Utility) 141 mph (123 knots)

C.G. Range Normal: (+16.1) to (+20.0) at 1500 lb.

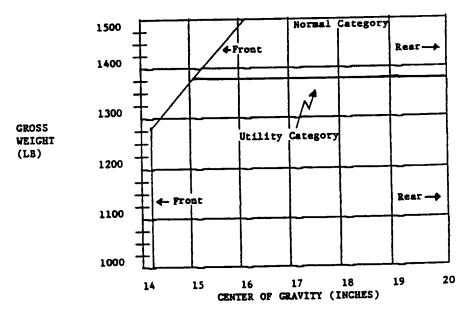
(+14.2) to (+20.0) at 1280 lb. or less Utility: (+15.1) to (+20.0) at 1380 lb.

(+14.2) to (+20.0) at 1280 lb. or less

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#### I - Model 19 (Cont'd)

Straight line variation between points given.



Empty Weight C.G. Range

None

Maximum Weight

Normal Category: 1500 lb. Utility Category: 1380 lb.

No. of Seats

2(+23)

Maximum Baggage

72 lbs. (+57)

Fuel Capacity

24 gals.

(12 gal. tank in fuselage at -9 and 6 gal. tank in each wing at +24)

Oil Capacity

4-1/2 qts. (+30)

Control Surface Movements

Elevators 27" up 25" down Elevator tab 25" up 25" down Aileron 23" up 23" down Rudder 25" right 26" left

Serial Nos. Eligible

12,000, 4-13000 and up, except 4-13100 and 4-13102

Required Equipment

In addition to the pertinent required basic equipment specified in CAR 3, the following items of equipment must be installed: 1, 2, or 3; 201(a); 202; 203; and 401(a)

#### II - Model F19, 2 PCLM (Normal and Utility Categories), Approved July 3, 1973

Engine Continental 0-200-A with CMC oil cap retainer assembly # 637130

Fuel 80/87 octane minimum grade aviation gasoline

Oil Detergent oil meeting Continental Specification MHS-24

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#### II - Model F19 (Cont'd)

Engine Limits See NOTE 3

For aircraft S/N F-001 to F-153 inclusive:

For all operations: 2750 rpm (100 HP)

For aircraft S/N F-154 and up:

Maximum Normal Operating Power: 2500 rpm (73 HP)

For all operations: 2750 rpm (100 HP)

Airspeed Limits (True Indicated)

V<sub>P</sub> (Maneuvering) (Normal) 87 mph (76 knots)

(Utility) 86 mph (75 knots)

V<sub>no</sub> (Maximum Structural (Normal) 108 mph (94 knots) Cruising) (Utility) 104 mph (90 knots)

V<sub>ne</sub> (Never Exceed)(Normal) 136 mph (118 knots)

(Utility) 141 mph (123 knots)

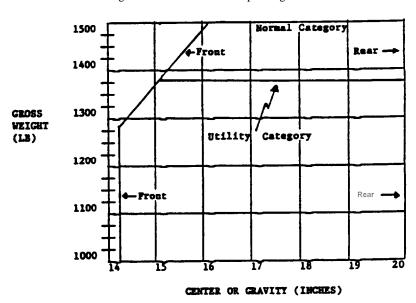
C.G. Range Normal: (+16.1) to (+20.0) at 1500 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Utility: (+15.1) to (+20.0) at 1380 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Straight line variation between points given.



Empty Weight C.G. Range None

Maximum Weight Normal Category: 1500 lb.

Utility Category: 1380 lb.

No. of Seats 2 (+23)

Maximum Baggage 72 lb. (+57)

Fuel Capacity 24 gal. total, 21 gal. usable

(12 gal. tank in fuselage at -9 and 6 gal. tank in each wing at +24)

See NOTE 1 for data on unusable fuel.

Oil Capacity 6 qt. (-29.4)

#### II - Model F19 (Cont'd)

Control Surface Movements	Elevators	27" up	25" down
	Elevator tab	25" up	30" down
	Aileron	23" up	23" down
	Rudder	26" right	26" left

F-001 thru F-1000 Serial Nos. Eligible

In addition to the pertinent required basic equipment specified in CAR 3, the following Required Equipment

items of equipment must be installed: 4 or 5, 201(b), 202, 203, 401(b)

#### III - Model F21, 2 PCLM (Normal or Utility Category), Approved July 2, 1980

The Model F21 is similar to the Model F19 except for the installation of a Lycoming 0-235-L2C engine, baffles, cowling, engine mount, and hydraulic brakes.

Lycoming 0-235-L2C with Marvel Schebler MA-3A, Part Number 10-3103-1, Engine

carburetor. The internally mounted Lycoming Thermostatic Oil Bypass and Pressure

Relief Valve is not appropriate for this installation. See NOTE 4.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

**Engine Limits** Maximum continuous, 2600 rpm (112 HP)

Takeoff (5 min.), 2800 rpm (118 HP)

V<sub>P</sub> (Maneuvering) Airspeed Limits (Normal): 87 mph (76 knots) (True Indicated)

(Utility): 86 mph (75 knots)

V<sub>no</sub> (Maximum Structural Cruising) (Normal): 108 mph (94 knots)

(Utility): 86 mph (90 knots)

V<sub>ne</sub> (Never Exceed)(Normal): 136 mph (118 knots)

(Utility): 141 mph (123 knots)

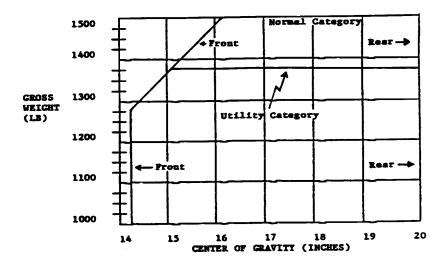
C.G. Range Normal: (+16.1) to (+20.0) at 1500 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Utility: (+15.1) to (+20.0) at 1380 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Straight line variation between points given.



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#### III - Model F21 (Cont'd)

(True Indicated)

Empty Weight C.G. Range None

Maximum Weight Normal Category: 1500 lb.

Utility Category: 1380 lb.

No. of Seats 2 (+23)

Maximum Baggage 72 lb. (+57)

Fuel Capacity 6 qt. (-28.5)

Control Surface Movements Elevators 27" up 25" down

Elevator tab 25" up 30" down Aileron 23" up 23" down Rudder 26" right 26" left

Serial Nos. Eligible F-1001 thru F-1499

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 6, 103, 104, 105, 106, 202, 203, 204, 401(c)

#### IV - Model F21A, 2 PCLM (Normal or Utility Category), Approved November 15, 1982

The Model F21A is similar to the Model F21 except for increasing the wing fuel to two 21-gallon tanks and the removal of the 12-gallon fuselage tank.

Engine Lycoming 0-235-L2C with Marvel Schebler MA-3A, Part Number 10-3013-1,

carburetor. The internally mounted Lycoming Thermostatic Oil Bypass and Pressure

Relief Valve is not appropriate for this installation. See NOTE 4.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Engine Limits Maximum continuous, 2600 rpm (112 HP)

Takeoff (5 mins.), 2800 rpm (118 HP)

Airspeed Limits V<sub>P</sub> (Maneuvering) (Normal): 87 mph (76 knots)

(Utility): 86 mph (75 knots)

V<sub>no</sub> (Maximum Structural Cruising) (Normal): 108 mph (94 knots)

(Utility): 104 mph (90 knots)

V<sub>ne</sub> (Never Exceed) (Normal): 136 mph (118 knots)

(Utility): 141 mph (123 knots)

C.G. Range Normal: (+16.1) to (+20.0) at 1500 lbs.

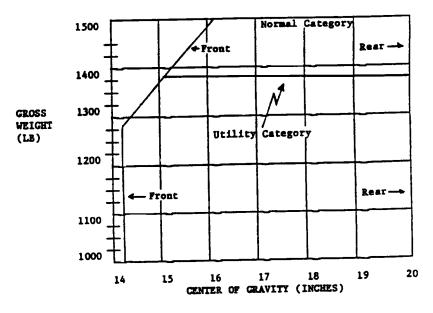
(+14.2) to (+20.0) at 1280 lbs. or less

Utility: (+15.1) to (+20.0) at 1380 lbs.

(+14.2) to (+20.0) at 1280 lbs. or less

# IV - Model F21A (Cont'd)

Straight line variation between points given.



Empty Weight C.G. Range None

Maximum Weight Normal Category: 1500 lbs.

Utility Category: 1380 lbs.

No. of Seats 2 (+23)

Maximum Baggage 72 lbs. (+57)

Fuel Capacity 42 gals. total, 40 gals. usable

(a 21 gal. tank in each wing at +24). See NOTE 1 for data on unusable fuel.

Oil Capacity 6 qts. (-28.5)

Control Surface Movements Elevators 27" up 25" down Elevator tab 25" up 30" down Aileron 23" up 23" down

Aileron 23" up 23" down Rudder 26" right 26" left

Serial Nos. Eligible F-1500 thru F-1506

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 6, 103, 104, 105, 106, 202, 203, 204, 401(d)

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# V - Model F21B, 2 PCLM (Normal or Utility Category), Approved September 6, 1985

The Model F21B is similar to the Model F21A except for increase in maximum allowable gross weight to 1750 lbs., baggage are capacity increased to 200 lbs., battery relocated to engine firewall, and improved visibility with an optional skylight, lower door window, and corresponding changes in regular windows, doors and interior upholstery.

Engine Lycoming 0-235-L2C with Marvel Schebler MA-#A, Part Number 10-3103-1,

carburetor. The internally mounted Lycoming Thermostatic Oil Bypass and Pressure

Relief Valve is not appropriate for this installation. See NOTE 4.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Engine Limits Maximum continuous, 2600 rpm (112 HP)

Takeoff (5 mins.), 2800 rpm (118 HP)

Airspeed Limits V<sub>P</sub> (Maneuvering) (Normal): 93 mph (81 knots)

(True Indicated) (Utility): 86 mph (75 knots)

V<sub>no</sub> (Maximum Structural Cruising) (Normal): 117 mph (102 knots)

(Utility): 104 mph (90 knots)

V<sub>ne</sub> (Never Exceed) (Normal): 148 mph (128 knots)

(Utility): 141 mph (123 knots)

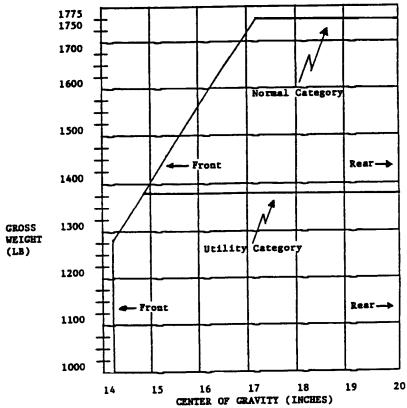
C.G. Range Normal: (+17.2) to (+20.0) at 1750 lbs.

(+14.2) to (+20.0) at 1280 lbs. or less

Utility: (+14.9) to (+20.0) at 1380 lbs.

(+14.2) to (+20.0) at 1280 lbs. or less

Straight line variation between points given.



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#### V - Model F21B (Cont'd)

Empty Weight C.G. Range None

Maximum Weight Normal Category: 1750 lb.

Utility Cateogry: 1380 lb.

No. of Seats 2 (+23)

Maximum Baggage 200 lb. (+57)

Fuel Capacity 42 gal. total, 40 gal. usable

(a 21 gal. tank in each wing at +24). See NOTE 1 for data on unusable fuel.

Oil Capacity 6 qt. (-28.5)

Control Surface Movements Elevators 27" up 25" down

Elevator tab 25" up 30" down Aileron 23" up 23" down Rudder 26" right 26" left

Serial Nos. Eligible F-1507 and up

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 6, 103, 104, 105, 107, 202, 203, 204, 401(e), 501.

#### VI - Model F22, 2 PCLM (Normal or Utility Category), Approved August 1, 1988

The Model F22 is basically a Model F21B with the addition of wing flaps, wider doors, top-hinged windows, and fore and aft adjustable individual seats.

Engine Lycoming 0-235-L2C with Marvel Schebler MA-3A, Part Number 10-3103-1,

carburetor. The internally mounted Lycoming Thermostatic Oil Bypass and Pressure

Relief Valve is not appropriate for this installation. See NOTE 4.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Engine Limits Maximum Continuous, 2600 rpm (112 HP)

Takeoff (5 min.), 2800 rpm (118 HP)

Airspeed Limits V<sub>P</sub> (Maneuvering) (Normal): 93 mph (81 knots)

(Calbrated Airspeed (CAS)) (Utility): 86 mph (75 knots)

V<sub>no</sub> (Maximum Structural Cruising) (Normal): 117 mph (102 knots)

(Utility): 104 mph (90 knots)

V<sub>ne</sub> (Never Exceed)(Normal): 148 mph (128 knots)

(Utility): 141 mph (122 knots)

V<sub>fe</sub> (Maximum Speed, Flaps Extended: 76 mph (66 knots)

C.G. Range Normal: (+17.2) to (+20.0) at 1750 lb.

(+14.2) to (+20.0) at 1280 lb. or less

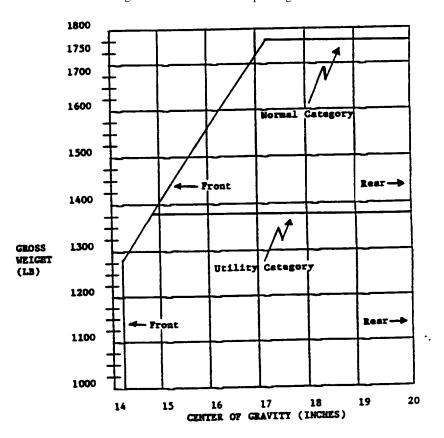
Utility: (+14.9) to (+20.0) at 1380 lb.

(+14.2) to (+20.0) at 1280 lb. or less

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# VI - Model F22 (Cont'd)

Straight line variation between points given.



Empty Weight C.G. Range None

Maximum Weight Normal Category: 1750 lb.

Utility Category: 1380 lb.

No. of Seats 2 (+23)

Maximum Baggage 200 lb. (+57)

Fuel Capacity 42 gal. total, 40 gal. usable

(a 21 gal. tank in each wing at +24). See Note 1 for data on unusable fuel.

Oil Capacity 6 qt. (-28.5)

Control Surface Movements Elevators 27" up 25" down Elevator tab 25" up 30" down

Aileron 23" up 30" down Rudder 26" right 26" left Flaps 0" up 30" down 30" down

Serial Nos. Eligible F2202 and up

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 6, 103, 104, 105, 106, 202, 203, 204, 401(f), 501.

#### VII - Model F22A, 2 PCLM (Normal Category), Approved February 20, 1991

The Model F22A is basically a Model F22 with a tricycle landing gear installed.

Engine Lycoming 0-235-L2C with Marvel Schebler MA-3A, Part Number 10-3103-1,

carburetor. The internally mounted Lycoming Thermostatic Oil Bypass and Pressure

Relief Valve is not appropriate for this installation. See NOTE 4.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Engine Limits Maximum continuous, 2600 rpm (112 HP)

Takeoff (5 min.), 2800 rpm (118 HP)

Airspeed Limits

(Calbrated Airspeed (CAS))

V<sub>P</sub> (Maneuvering)

(Normal): 93 mph (81 knots)

V<sub>no</sub> (Maximum Structural Cruising)

(Normal): 117 mph (102 knots)

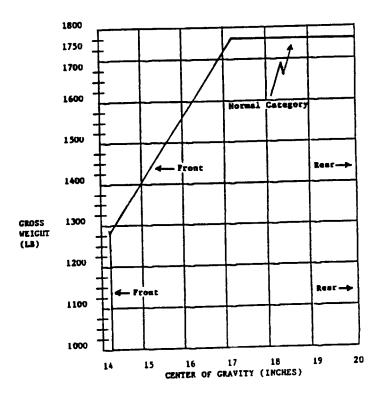
V<sub>ne</sub> (Never Exceed)(Normal): 148 mph (128 knots)

 $V_{fe}$  (Maximum Speed, Flaps Extended: 76 mph (66 knots))

C.G. Range Normal: (+17.2) to (+20.0) at 1750 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Straight line variation between points given.



Empty Weight C.G. Range None

Maximum Weight Normal Category: 1750 lb.

No. of Seats 2 (+23)

Maximum Baggage 200 lb. (+57)

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#### VII - Model F22A (Cont'd)

Fuel Capacity 42 gal. Total, 40 gal. usable

(a 21 gal. tank in each wing at (+24). See NOTE 1 for data on unusable fuel.

Oil Capacity 6 qt. (-28.5)

Control Surface Movements Elevators 27° up 25° down

Elevator tab 25° up 30° down Aileron 23° up 23° down Rudder 26° up 26° left Flaps 0° up 30° down

Serial Nos. Eligible F2205 and up

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 6, 102, 103, 104, 105, 106, 202, 204, 206, 207,

401(g), 501.

# VIII - Model F22B, 2 PCLM (Normal Category) Approved July 14, 1992

The Model F22B is basically a Model F22 except it has a Textron Lycoming 0-360-A4M engine installation with matching propeller, battery relocated from firewall to aft fuselage and fuel line sizes increased from 3/8" to 1/2" diameter.

Engine Textron Lycoming 0-360-A4M with carburetor. Since an oil cooler is installed, the

internally mounted thermostatic oil by-pass and pressure relief valve can be used for this

installation.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Engine Limits Maximum continuous, 2700 rpm (180 HP)

Airspeed Limits V<sub>P</sub> (Maneuvering): 93 mph (81 knots)

(Calbrated Airspeed (CAS))

 $V_{no}$  (Maximum Structural Cruising): 117 mph (90 knots)

 $V_{ne}$  (Never Exceed): 148 mph (128 knots)

V<sub>fe</sub> (Maximum Speed, Flaps extended): 76 mph (66 knots)

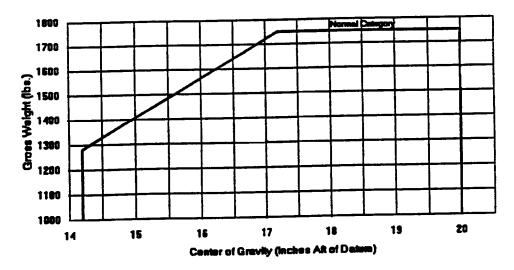
C.G. Range (+17.2) to (+20.0) at 1750 lb.

(+14.2) to (+20.0) at 1280 lb. or less

# VIII - Model F22B (Cont'd)

Straight line variation between points given.

# Center of Gravity Location Versus Weight Envelope



Empty Weight C.G. Range None

Maximum Weight 1750 lb.

No. of Seats 2 (+23)

Maximum Baggage 200 lb. (+57)

Fuel Capacity 42 gal. total, 40 gal. usable

(a 21 gal. tank in each wing at +24). See NOTE 1 for data on unusable fuel.

Oil Capacity 8 qt. (-27.5)

Control Surface Movements Elevators 27" up 25" down

Elevator tab 25" up 30" down Aileron 23" up 23" down Rudder 26" right 26" left Flaps 0" up 30" down

Serial Nos. Eligible F2213 and up

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 7, 106, 108, 109, 110, 111, 112, 202, 203, 204,

401(h), 501.

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# IX - Model F22C, 2 PCLM (Normal Category) Approved February 20, 1992

The Model F22C is basically a Model F22A except is has a Textron Lycoming 0-360-AFM engine installation with matching propeller, battery relocated from firewall to aft fuselage and fuel line sizes increased from 3/8" to 1/2" diameter.

Textron Lycoming 0-360-A4M with carburetor. Since an oil cooler is installed, the Engine

internally mounted thermostatic oil by-pass and pressure relief valve can be used for this

installation.

Fuel 100/130 or 100 LL minimum grade aviation gasoline

Maximum continuous, 2700 rpm (180 HP) **Engine Limits** 

V<sub>P</sub> (Maneuvering): 93 mph (81 knots) Airspeed Limits

V<sub>no</sub> (Maximum Structural Cruising): 117 mph (90 knots)

V<sub>ne</sub> (Never Exceed): 148 mph (128 knots)

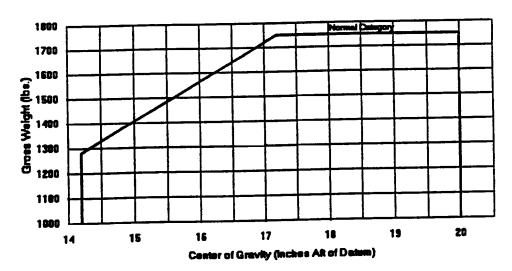
V<sub>fe</sub> (Maximum Speed, Flaps Extended): 76 mph (66 knots)

C.G. Range (+17.2) to (+20.0) at 1750 lb.

(+14.2) to (+20.0) at 1280 lb. or less

Straight line variation between points given.

# Center of Gravity Location Versus Weight Envelope



Empty Weight C.G. Range None

Maximum Weight 1750 lb.

No. of Seats 2(+23)

Maximum Baggage 200 lb. (+57)

**Fuel Capacity** 42 gal. total, 40 gal. usable

(a 21 gal. tank in each wing at +24).

See NOTE 1 for data on unusable fuel.

#### IX - Model F22C (Cont'd)

Oil Capacity 8 qt. (-27.5)

Control Surface Movements Elevators 27" up 25" down Elevator tab 25" up 30" down

Aileron 23" up 23" down Rudder 26" right 26" left

Serial Nos. Eligible F2212 and up

Required Equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed: 7, 105, 108, 109, 110, 111, 112, 202, 204, 206,

207, 401(1), 501.

#### Specifications pertinent to all Models

Datum Wing leading edge

Leveling Means Upper surface of horizontal stabilizer immediately adjacent to the vertical fin.

Production basis Type certificate only. Prior to original certification of each aircraft, an FAA

representative must perform a detailed inspection for workmanship, materials, conformity with the approved technical data, and a check of the flight characteristics.

Export eligibility Eligible for export to all countries subject to the provisions of Federal Aviation

Regulations Part 21.329.

Equipment A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change

when that item is installed. Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except for those items preceded by an asterisk (\*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufacturer under an FAA monitored or approved quality control system, and therefore, conformity must be determined if the item is not identified by Parts Manufacturer Approval or other evidence of FAA production approval.

# Specifications pertinent to Models 19, F19, F21, F21A, F21B, F22 and F22A Aircraft

Certification basis Part 3 of the Civil Air Regulations effective November 1, 1949, and Part 3.84a, 3.85a,

3.87, 3.112, 3.120 and 3.124 of Amendment 3-4 dated January 15, 1951. In addition, FAR 23.1555(d), 23.1557(c)(1) and 23.221(c) effective August 11, 1971, in lieu of CAR 3.767(a) and 3.124(c) for Model F19, F21, F21A, F21B, F22 and F22A aircraft. FAR 36 effective January 15, 1979, for Model F19 (S/N F-154 and up), F21, F21A, F21B, F22 and F22A aircraft. Dates of applications for Model 19, not available; for Model F19, September 10, 1971; for Model F21, March 1, 1978; for Model F21A, September 1, 1981; for Model F21B, April 27, 1983; for Model F22, August 1, 1988; for Model F22A,

April 17, 1990.

# Specifications pertinent to Models F22B and F22C

Certification basis Part 3 of the Civil Air Regulations, effective November 1, 1949 and 3.84a, 3.85a, 3.87,

3.112, 3.120 and 3.124 of Amendment 3-4, dated January 15, 1951. In addition, FAR 23.1555(d) and 23.1557(c)(1) effective August 11, 1971, in lieu of CAR 3.767(a). FAR 36, Appendix G, Amendments 1 through 18. Date of application for F22B and F22C,

April 17, 1990.

# Propellers and Propeller Accessories

1.	Propeller (with Continental C85-12 or C85-12F engine) - Sensenich 72CK46 or 72CK48 any other fixed pitch wood propeller which meets the following limits:  Diameter - not over 74 ins., not under 70.5 ins. Static rpm at maximum permissible throttle setting, not over 2350, not under 2350. No additional tolerance permitted.	10 lb.	(-50)	
2.	Propeller (with Continental C85-12 or C85-12F engine) - McCauley 1A90, fixed pitch metal, with the following limitations:  Diameter - not over 71 ins., not under 69.5 ins. Static rpm at the maximum permissib throttle setting, not over 2400, not under 2300. No additional tolerance permitted.	ole	26 lb.	(-50)
3.	Propeller (with Continental C85-12 or C85-12F engine) - Sensenich M74CK-2, fixed pitce metal, with the following limitations:  Static rpm at the maximum permissible throttle setting, not over 2350, not under 2250. No additional tolerance permitted. Diameter - not over 72 ins., not under 70 ins. NOTE: The applicable Airplane Flight Manual shall be revised by the Modifier and approved by the FAA to reflect this installation change.		21 lb.	(-50)
4.	Propeller (with Continental O-200-A engine) - McCauley 1A105/SCM 6950, fixed pitch metal, with the following limitations:  Diameter - not over 69 ins. Static rpm at the maximum permissible throttle setting, not over 2550, not under 2450. No additional tolerance permitted.		20 lb.	(-50)
5.	Propeller (with Continental O-200-A engine) - McCauley 1B90/CM7443, fixed pitch merwith the following limitations:  Diameter - not over 74 ins., not under 71 ins. Static rpm at the maximum permissible throttle setting, not over 2400, not under 2300. No additional tolerance permitted.		20.9 lb.	(-50)
6.	<ul> <li>(a) Propeller (with Lycoming O-235-L2C engine) - Sensenich 72CK-0-50, fixed pitch metal, with the following limitations:</li> <li>Diameter - not over 72 ins., not under 70 ins. Static rpm at the maximum permissible throttle setting, not over 2500, not under 2400. No additional tolerance permitted.</li> <li>(b) Spinner - Taylorcraft P/N 2800-3 backing plate and 2800-4 spinner.</li> </ul>	le	24.8 lb.	(-50)
7.	<ul> <li>(a) Propeller (with Lycoming O-360-A4M engine) - Sensenich 76EM8S5-0-60, fixed pitch metal, with the following limitations:</li> <li>Diameter - not over 76 ins., not under 74 ins. Static RPM at the maximum permissil throttle setting, not over 2400, not under 2300. No additional tolerance permitted.</li> <li>(b) Spinner - Taylorcraft P/N 4315 backing plate and spinner installation.</li> </ul>	ble	39.9 lb. 5.0 lb.	(-52.5)
Eng	gines and Engine Accessories - Fuel and Oil systems			
101.	. (a) Starter, Delco Remy 16 lb. (-24.00)	22A  	<u>F22B</u>   	<u>F22C</u>  
102.	2. Starter, Prestolite, P/N 17 lb (-33.75) (-33.75) (-33.75) (-33.75)	3.75)		

# Engines and Engine Accessories (Cont'd)

104.	Exhaust Stacks - Taylorcraft P/N/2835-1 (left), and 2840-1 (right)	10.5 lb.	<u>19</u> 	<u>F19</u> 	F21 & F21A (-30)	F22 & F21B (-30)	<u>F22A</u> (-30)	<u>F22B</u> 	<u>F22C</u> 
105.	Fuel Strainer - Taylorcraft P/N 2581 (Latour Gascolator Kit)	.50 lb.	(-17.4)	(-17.4)	(-17.4)	(-17.4)	(-17.4)	(-17.4)	(-17.4)
106.	Carburetor Air Intake Housing Continental P/N A50256 or P/N 628122 or P/N 641534	1.44 lb.	(-38)	(-38)	(-28)	(-28)	(-28)		
107.	Oil Cooler (optional) Stewart Warner P/N 8406R	2.8 lb.			(-21.5)	(-21.5)	(-21.5)		
108.	Starter, Textron Lycoming, P/N 31A21210	11.3 lb.						(-34)	(-34)
109.	Carburetor Air filter - Bracket Air Filter Assembly, P/N BA6110	1.0 lb.						(-34)	(-34)
110.	Exhaust Stacks - Taylorcraft P/N 2835-12 (left), and 2840- 12 (right)	10.50 lb.						(-30)	(-30)
111.	Fuel Strainer - Taylorcraft P/N 4313	.50 lb.						(-17.4)	(-17.4)
112.	Carburetor Air Intake Hosing Taylorcraft P/N 4310	2.10 lb.						(-25.6)	(-25.6)
Land	ing Gear and Skis								
201.	Two main wheel-brake assemblies, 6.00-6 type III (a) Cleveland Aircraft Products Co. Wheel Asembly No. C- 38500HMA	15 lb.	(+2)						
	Brake Assembly No. C-7000 (b) Cleveland Wheels and Brakes Wheel Assembly No. 401-7; Brake Assembly No. 30-3A			(+2)					
202.	Two main wheel 4 ply rating tires, 6.00-6, type III, with regular tubes	17 lb.	(+2)	(+2)	(+2)	(+2)	(+29.9)	(+2)	(29.9)

Landi	ng Gear and Skis (Cont'd)								
203.	Tail wheel assembly 6 x 2.00, full swiveling Scott Model 3-24B	6 lb.	1 <u>9</u> (+193)	<u>F19</u> (+193)	<u>F21 &amp;</u> <u>F21A</u> (+193)	F22 & F21B (+193)	<u>F22A</u>	<u>F22B</u> (+193)	<u>F22C</u>
	Tail wheel assembly 6:50 x 2:50, full swiveling Maule Model SFSA-1-2	6.9 lb.	(+193)	(+193)	(+193)	(+193)		(+193)	
	Tail wheel assembly 8" pneumatic, full swiveling Scott Series 3200 with mounting adapter kit #3241-1S	7.0 lb.	(+193)	(+193)	(+193)	(+193)		(+193)	
	Tail Wheel assembly 8:00 x 3:00 pneumatic, full swiveling Maule Model SFS-P8B-1-2	8.25 lb.	(+193)	(+193)	(+193)	(+193)		(+193)	
	Tail Wheel assembly 8:00 x 3:00 pneumatic, full swiveling Maule Model SFS-P8B-1-2	9.0 lb.	(+193)	(+193)	(+193)	(+193)		(+193)	
204.	Two main wheel-brake assemblies, 6:00 x 6, type III, Parker Hannifin Wheel assembly No. 40-86, and	53 lb.			(+2)	(+2)	(+29.9)	(+2)	(+29.9)
	Brake assembly No. 30-55	1.4 lb.			(+2)	(+2)	(+29.9)	(+2)	(+29.9)
205.	Skis (a) Aero Ski M1500 (b) Aero Ski M2000	35.6 lb. 43 lb.	(-2) (-2.3)	(-2) (-2.3)	(-2) (-2.3)				
206.	Nose Wheel, Parker- Hannifen (Cleveland) #040- 077000, Type III	2.6 lb.					(-30.6)		(-30.6)
207.	Nose Wheel 4 ply rating tire 5.00 x 5 Type III with regular tube	5.9 lb.					(-30.6)		(-30.6)
301.	(a) Battery and box, 12 volts, Bowers B25	16 lb.	(+70)						
	(b) Battery and box, 12 volts Rebat S25, battery relay RBM8781-2	24.25 lb.		(+71)					
	(c) Battery and box, 12 volts, Prestolite S-25, battery relay RBM 8781-2	24.25 lb.			(+71)				
	(d) Battery and box, 12 volts, Rebat S25M; battery relay RBM 8781-2	24.25 lb.				(-21)	(-21)		
	(e) Battery and box, 12 volts, Concorde 25 RG (CB25M)	24.25 lb.						(105)	(105)

# Landing Gear and Skis (Cont'd)

					F21 &	F22 &			
			<u>19</u>	F19	<u>F21A</u>	F21B	F22A	<u>F22B</u>	<u>F22C</u>
302.	(a) Generator, Delco Remy	10 lb.	(-24)						
	1876								
	Voltage regulator, Delco	1 lb.	(-18)						
	Remy 118323								
	(b) Alternator, Ford GPS	11.75 lb.		(-21.64)					
	#DOFF-10300-F								
	Voltage Regulator, Ford-	0.80 lb.		(-17.4)					
	GPD #C6FF-10316-BA								
	Voltage regulator, Ford-	0.80 lb.		(-17.4)					
	#D4FF-10316-BA								
	(c) Alternator, Prestolite	13 lb.			(-40.25)	(-40.25)	(-40.25)		
	ALY-8420-G								
	Voltage regulator,	1.25 lb.			(-17.4)	(-17.4)	(-17.4)		
	Prestolite FVR 4224								
	Voltage regulator,	.53 lb.			(-17.4)	(-17.4)	(-17.4)		
	Electrodelta VR 417-2								
	Voltage regulator,	1.25 lb.						(-17.4)	(-17.4)
	Lamar P/N 800371-4								

#### **Interior Equipment**

- 401. (a) FAA Approved Airplane Flight Manual for Model 19 dated May 31, 1951
  - (b) FAA Approved Airplane Flight Manual for Model F19 dated July 3, 1973.
  - (c) FAA Approved Airplane Flight Manual for Model F19 dated July 2, 1980.
  - (d) FAA Approved Airplane Flight Manual for Model F21A dated November 15, 1982.
  - (e) FAA Approved Airplane Flight Manual for Model F21B dated September 4, 1985.
  - (f) FAA Approved Airplane Flight Manual for model F22 dated August 1, 1988.
  - (g) FAA Approved Airplane Flight Manual for Model F22A dated February 20, 1991.
  - (h) FAA Approved Airplane Flight Manual for Model F22B, dated July 14, 1992.
  - (i) FAA Approved Airplane Flight Manual for Model F22C, dated April 3, 1992.
- 501. Stall Warning System (Dwgs: 3300 & 4035) .60 lb. -- -- (-2.25) (-2.25) (-2.25)

NOTE 1: Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system). For the F19 and F21 the certificated empty weight and corresponding center of gravity location must include unusable fuel 18 lb. (-9) (fwd. tank). For the F21A, F21B, F22, F22A, F22B, and F22C, the certificated empty weight and corresponding center of gravity location must include unusable fuel 12 lb. (+24) (wing tanks).

NOTE 2. The following placards must be displayed in full view of the pilot:  $\frac{Placard}{}$ 

(a)	"Operates in normal or utility category in compliance with Approved Flight Manual."	19 X	<u>F19</u> X	<u>F21</u> X	<u>F21A</u> X	<u>F21B</u> X	<u>F22</u> X	<u>F22A</u>	<u>F22B</u>	<u>F22C</u>
(b)	"Airplane marked for normal category only."	X	X	X	X	X	X			
(c)	"Acrobatics (including spins) prohibited in normal category."	X	X	X	X	X	X			
(d)	"No Smoking	X	X	X	X	X	X	X	X	X
(e)	"Refill main tank in level flight and only when main tank is less than full."	X	X	X						
(f)	"Fuel quantity gauge indicates contents of 12 gallon fuselage tank only."	X								
(g)	"VFR day only" or "VFR day/night only" (when approved night lights are installed)		X	X	X	X	X	X		
(h)	"Main tank usable fuel 9 gal." (Must be displayed above the fuel selector valve)	X	X							
(i)	"Aux. wing tank usable fuel 6 gal." (Must be displayed above the fuel selector valve)		X	X						
(j)	"Baggage not to exceed 72 lb."	X	X	X	X					
(k)	"Turn off anti-collision light in visible moisture conditions." (when anticollision light is installed)		X	X	X	X	X	X	X	X
(1)	"Usable fuel 40 gal." (Must be displayed on the fuel selector panel)				X	X	X	X	X	X
(m)	"Fill to bottom of tab only." (Must be displayed adjacent to the fuel filler caps)				X	X	X	X		
(n)	"20 gal." (Must be displayed on the fuel filler caps)				X	X	X	X	X	X

NOTE	2 (Cont'd)									
(0)	"Baggage not to exceed 10 lb." (Must be displayed on the baggage	<u>19</u> 	<u>F19</u>	<u>F21</u> X	<u>F21A</u> X	<u>F21B</u> X	<u>F22</u> X	<u>F22A</u> X	<u>F22B</u> X	<u>F22C</u> X
(p)	compartment extension cylinder cover) "Baggage not to exceed 200 lb." (Must be displayed on baggage compartment rear wall)					X	X	X	X	X
(q)	"Flaps: Maximum 30° (3 <sup>rd</sup> Notch) for Landing. No flap extension for Normal Take-Off."						X	X	X	X
(r)	"Maximum Crosswind is 10 Kts."						X	X	X	X
(s)	"Utility Category Intentional Spins, Flaps Down, Prohibited."						X			
(t)	"Operate in Normal Category Only in Compliance with FAA Approved Flight Manual"								X	X
(u)	"No Acrobatic Maneuvers (including spins) are Approved for Normal Category Operations."								X	
(v)	"Normal Category Acrobatics, Including Spins, Prohibited."									X
(w)	"Never Exceed Speed 148 MPH CAS"								X	X
(x)	"Maneuvering Speed 93 MPH CAS"								X	X
(y)	"Approved for Day/Night VFR/IFR Operations When Proper Equipment is Installed and Operating."								X	X
(z)	"Pilot and Passenger Seats Must Be Locked in Position Prior to Take-Off								X	
(aa)	"Fuel Min. 100 Octane." (Must be displayed on wing upper surfaces								X	X
(bb)	adjacent to fuel filler caps) "Fuel Drain." (Must be displayed on wing upper surfaces adjacent to fuel filler caps)								X	X
(cc)	"Remove if Oil Temperature Runs Hotter than 210°F in Climb or 180°F in Cruise."								X	X
(dd)	"Removal Ballast, 7.75 lbs."								X	X

NOTE 3. In order to comply with the requirements of Part 36 of the Federal Aviation Regulations, revised engine limits have been established for the Model F19, S/N F-154 and up. Serial number effectivity was determined by FAR 36.501.

NOTE 4. The engine and oil cooling of the Model F21, F21A, F21B, F22 and F22A, with the Lycoming 0-235-L2C engine installed has not been investigated for more than 2600 rpm (112 HP) at full throttle in climb.