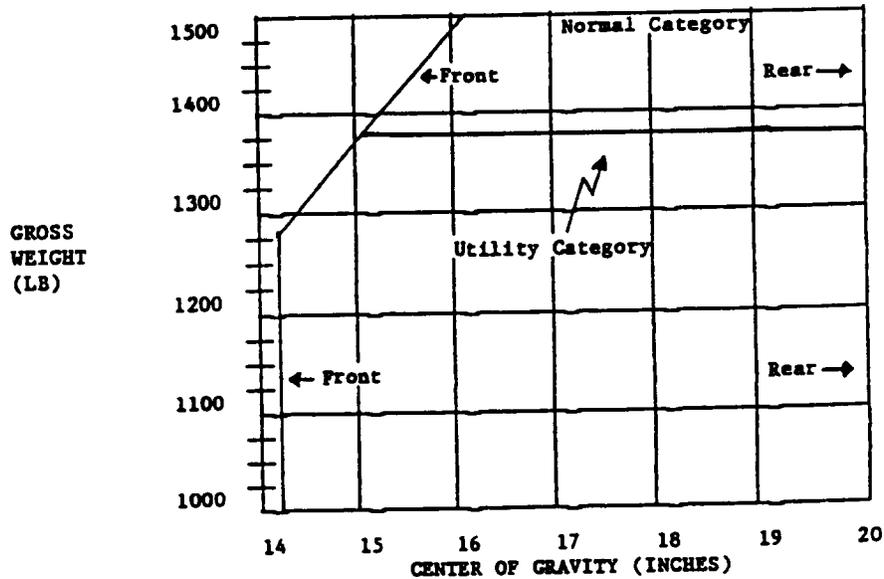


I - Model 19 (Cont'd)

Straight line variation between points given.



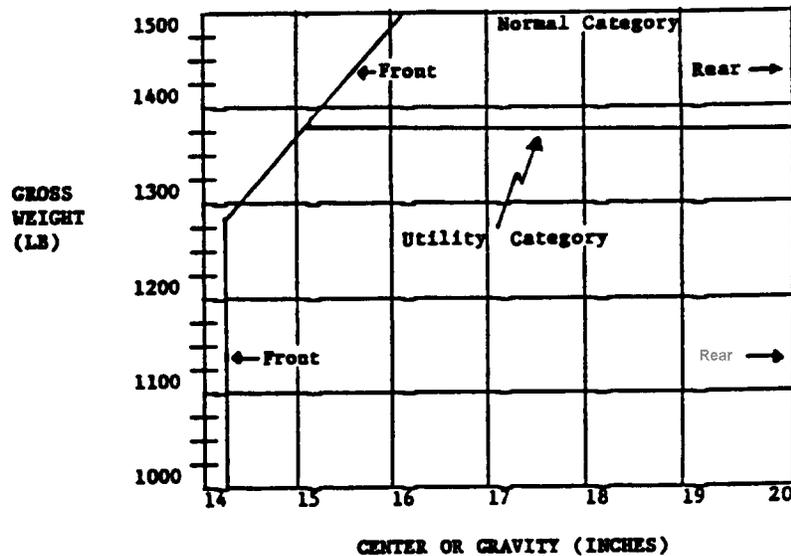
Empty Weight C.G. Range	None	
Maximum Weight	Normal Category: 1500 lb. Utility Category: 1380 lb.	
No. of Seats	2 (+23)	
Maximum Baggage	72 lbs. (+57)	
Fuel Capacity	24 gals. (12 gal. tank in fuselage at -9 and 6 gal. tank in each wing at +24)	
Oil Capacity	4-1/2 qts. (+30)	
Control Surface Movements	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

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_P (Maneuvering)	(Normal) 87 mph (76 knots) (Utility) 86 mph (75 knots)
	V_{no} (Maximum Structural Cruising)	(Normal) 108 mph (94 knots) (Utility) 104 mph (90 knots)
	V_{ne} (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)

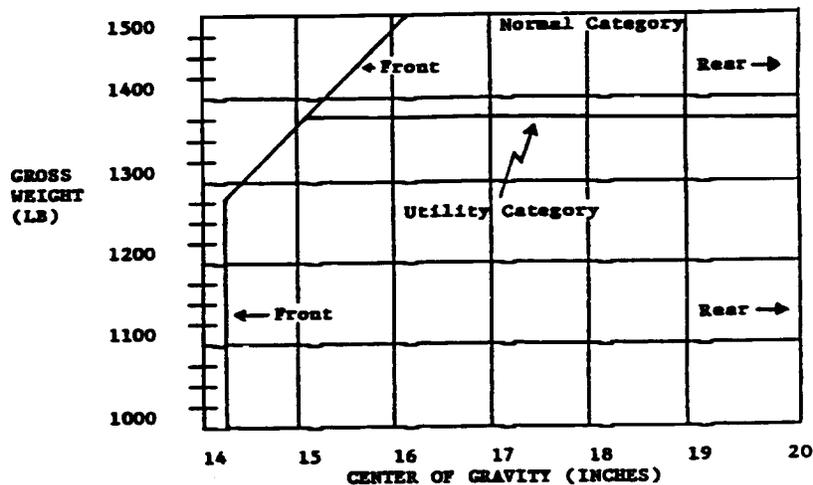
II - Model F19 (Cont'd)

Control Surface Movements	Elevators	27" up	25" down
	Elevator tab	25" up	30" down
	Aileron	23" up	23" down
	Rudder	26" right	26" left
Serial Nos. Eligible	F-001 thru F-1000		
Required Equipment	In addition to the pertinent required basic equipment specified in CAR 3, the following 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.

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 (True Indicated)	V _p (Maneuvering)	(Normal): 87 mph (76 knots) (Utility): 86 mph (75 knots)
	V _{no} (Maximum Structural Cruising)	(Normal): 108 mph (94 knots) (Utility): 86 mph (90 knots)
	V _{ne} (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.		



III - Model F21 (Cont'd)

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)		

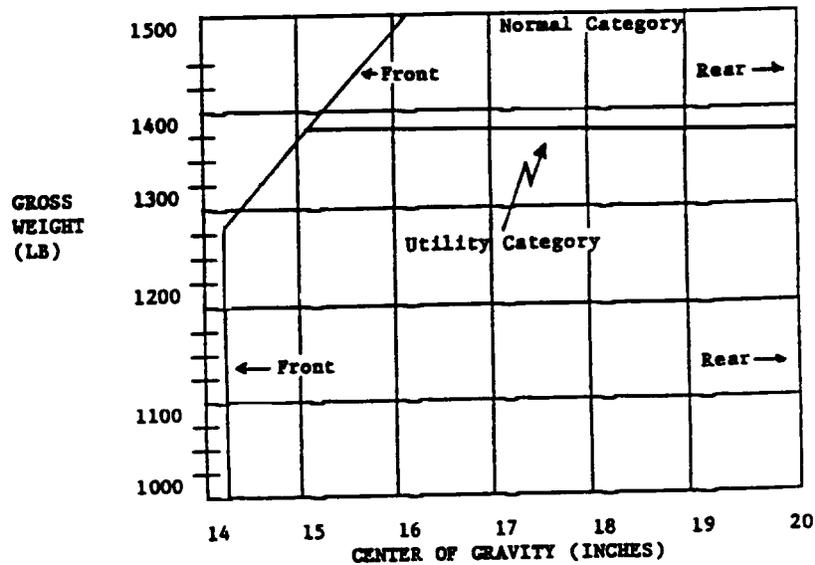
IV - Model F21A, 2 PCLM (Normal or Utility Category), Approved November 15, 1982

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 (True Indicated)	V _P (Maneuvering)	(Normal): 87 mph (76 knots)	(Utility): 86 mph (75 knots)
	V _{no} (Maximum Structural Cruising)	(Normal): 108 mph (94 knots)	(Utility): 104 mph (90 knots)
	V _{ne} (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.

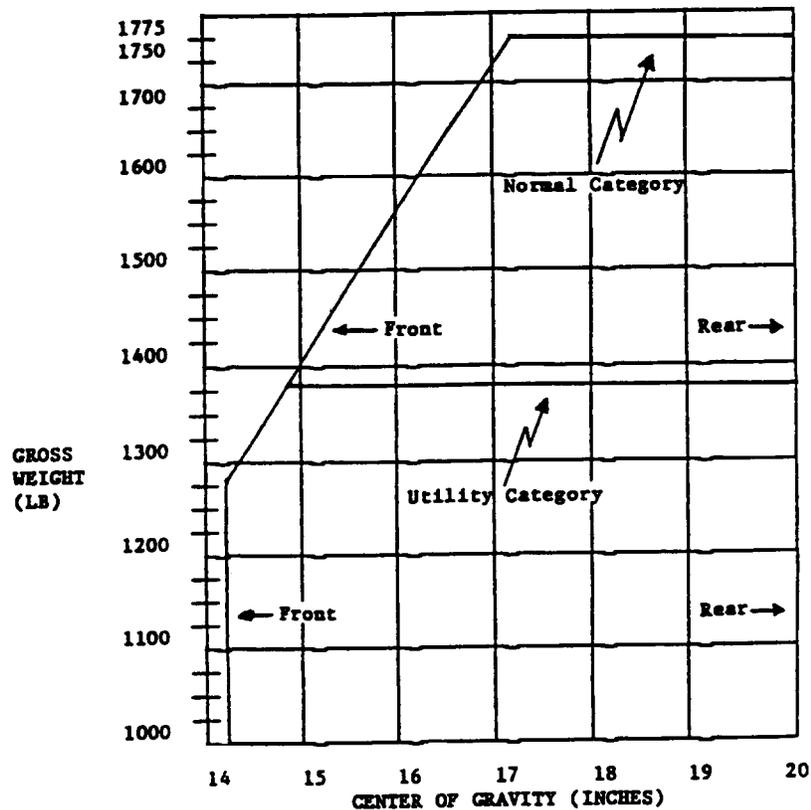


Empty Weight C.G. Range	None	
Maximum Weight	Normal Category: 1500 lbs. Utility Category: 1380 lbs.	
No. of Seats	2 (+23)	
Maximum Baggage	72 lbs. (+57)	
Fuel Capacity	42 gals. total, 40 gals. usable (a 21 gal. tank in each wing at +24). See NOTE 1 for data on unusable fuel.	
Oil Capacity	6 qts. (-28.5)	
Control Surface Movements	Elevators	27" up 25" down
	Elevator tab	25" up 30" down
	Aileron	23" up 23" down
	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)	

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 O-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 (True Indicated)	V_P (Maneuvering)	(Normal): 93 mph (81 knots) (Utility): 86 mph (75 knots)
	V_{no} (Maximum Structural Cruising)	(Normal): 117 mph (102 knots) (Utility): 104 mph (90 knots)
	V_{ne} (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.	



V - Model F21B (Cont'd)

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	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.		

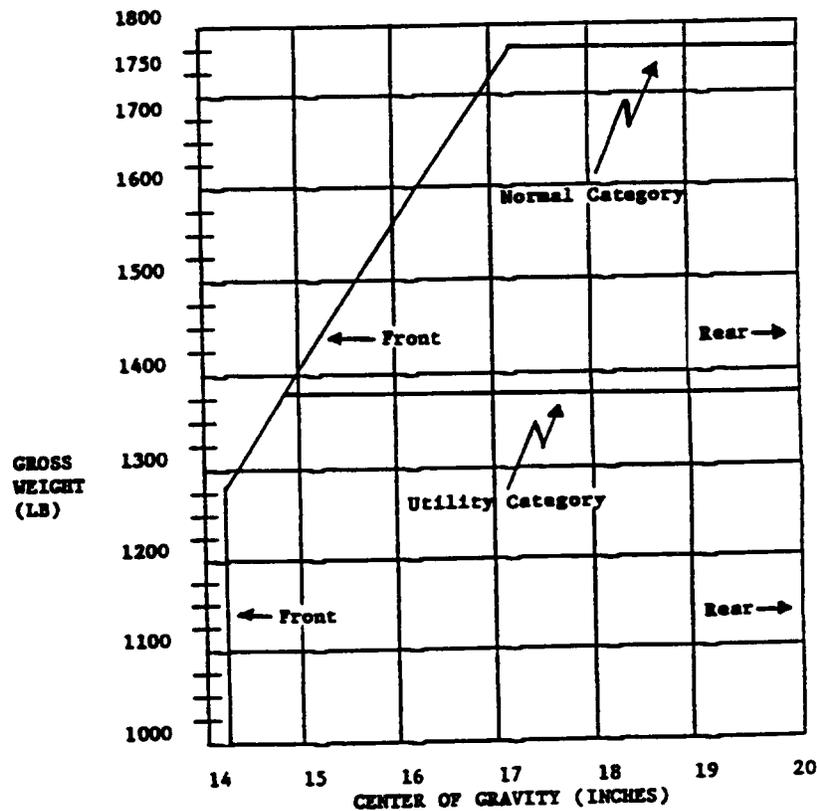
VI - Model F22, 2 PCLM (Normal or Utility Category), Approved August 1, 1988

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 (Calibrated Airspeed (CAS))	V _p (Maneuvering)	(Normal): 93 mph (81 knots)	(Utility): 86 mph (75 knots)
	V _{no} (Maximum Structural Cruising)	(Normal): 117 mph (102 knots)	(Utility): 104 mph (90 knots)
	V _{ne} (Never Exceed)	(Normal): 148 mph (128 knots)	(Utility): 141 mph (122 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	
	Utility:	(+14.9) to (+20.0) at 1380 lb. (+14.2) to (+20.0) at 1280 lb. or less	

VI - Model F22 (Cont'd)

Straight line variation between points given.

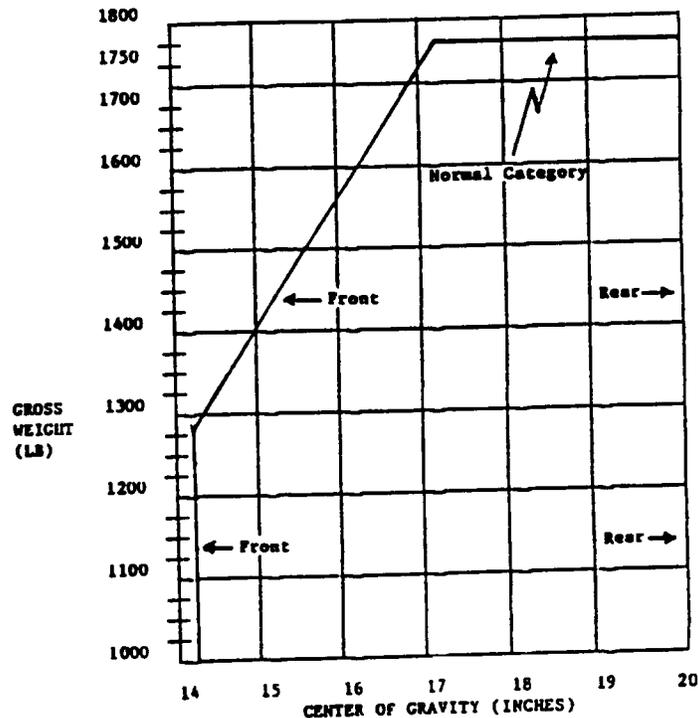


Empty Weight C.G. Range	None		
Maximum Weight	Normal Category: 1750 lb. Utility Category: 1380 lb.		
No. of Seats	2 (+23)		
Maximum Baggage	200 lb. (+57)		
Fuel Capacity	42 gal. total, 40 gal. usable (a 21 gal. tank in each wing at +24). See Note 1 for data on unusable fuel.		
Oil Capacity	6 qt. (-28.5)		
Control Surface Movements	Elevators	27" up	25" down
	Elevator tab	25" up	30" down
	Aileron	23" up	23" down
	Rudder	26" right	26" left
	Flaps	0" up	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_P (Maneuvering)	(Normal): 93 mph (81 knots)
	V_{no} (Maximum Structural Cruising)	(Normal): 117 mph (102 knots)
	V_{ne} (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)

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

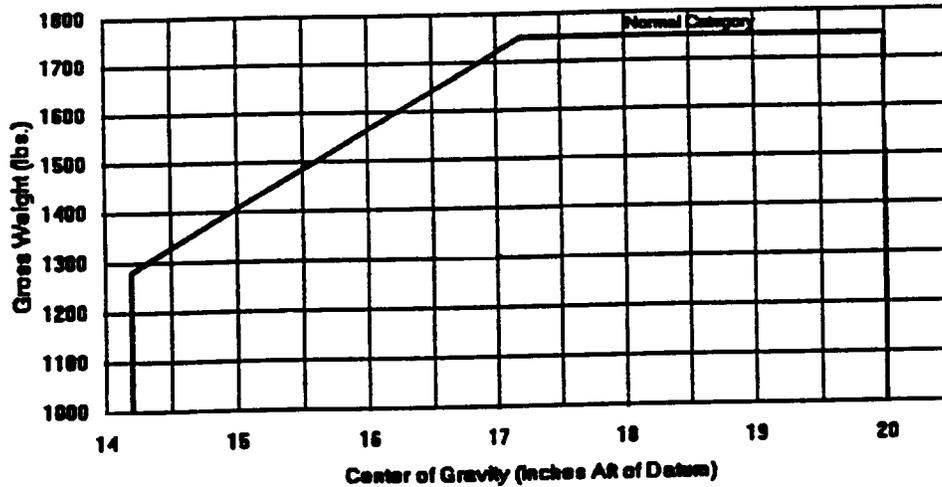
The Model F22B is basically a Model F22 except it has a Textron Lycoming 0-360-A4M engine installation with matching propeller, battery relocated from firewall to aft fuselage and fuel line sizes increased from 3/8" to 1/2" diameter.

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 (Calbrated Airspeed (CAS))	V _p (Maneuvering): 93 mph (81 knots)		
	V _{no} (Maximum Structural Cruising): 117 mph (90 knots)		
	V _{ne} (Never Exceed): 148 mph (128 knots)		
	V _{fe} (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



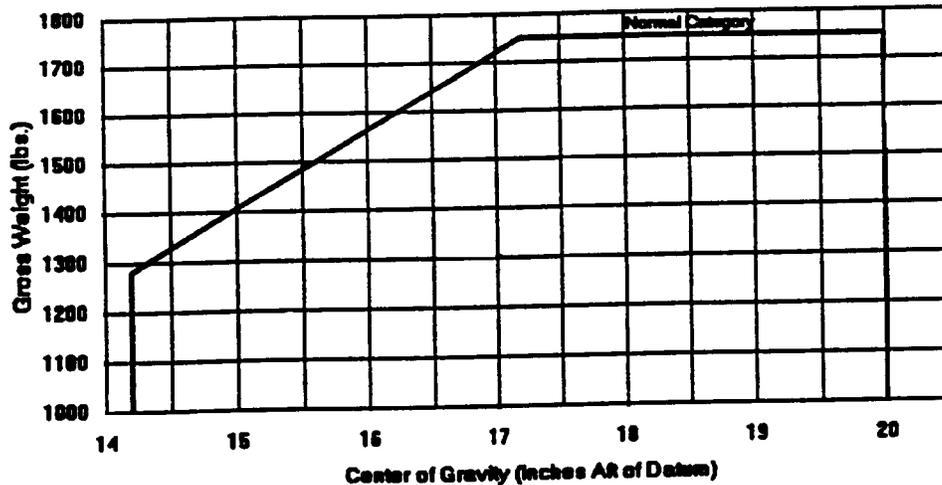
Empty Weight C.G. Range	None		
Maximum Weight	1750 lb.		
No. of Seats	2 (+23)		
Maximum Baggage	200 lb. (+57)		
Fuel Capacity	42 gal. total, 40 gal. usable (a 21 gal. tank in each wing at +24). See NOTE 1 for data on unusable fuel.		
Oil Capacity	8 qt. (-27.5)		
Control Surface Movements	Elevators	27" 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.		

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

The Model F22C is basically a Model F22A except it 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.

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 _P (Maneuvering): 93 mph (81 knots) V _{no} (Maximum Structural Cruising): 117 mph (90 knots) V _{ne} (Never Exceed): 148 mph (128 knots) V _{fe} (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.
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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.
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Engines and Engine Accessories (Cont'd)

		<u>19</u>	<u>F19</u>	<u>F21 & F21A</u>	<u>F22 & F21B</u>	<u>F22A</u>	<u>F22B</u>	<u>F22C</u>	
104.	Exhaust Stacks - Taylorcraft P/N/2835-1 (left), and 2840-1 (right)	10.5 lb.	--	--	(-30)	(-30)	(-30)	--	--
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)

Landing Gear and Skis

201.	Two main wheel-brake assemblies, 6.00-6 type III								
	(a) Cleveland Aircraft Products Co. Wheel Assembly 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)

Landing Gear and Skis (Cont'd)

			<u>19</u>	<u>F19</u>	<u>F21 & F21A</u>	<u>F22 & F21B</u>	<u>F22A</u>	<u>F22B</u>	<u>F22C</u>
203.	Tail wheel assembly 6 x 2.00, full swiveling Scott Model 3-24B	6 lb.	(+193)	(+193)	(+193)	(+193)	--	(+193)	--
	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 Brake assembly No. 30-55	53 lb.	--	--	(+2)	(+2)	(+29.9)	(+2)	(+29.9)
		1.4 lb.	--	--	(+2)	(+2)	(+29.9)	(+2)	(+29.9)
205.	Skis								
	(a) Aero Ski M1500	35.6 lb.	(-2)	(-2)	(-2)	--	--	--	--
	(b) Aero Ski M2000	43 lb.	(-2.3)	(-2.3)	(-2.3)	--	--	--	--
206.	Nose Wheel, Parker-Hannifin (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)

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

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)	(-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:
Placard

	<u>19</u>	<u>F19</u>	<u>F21</u>	<u>F21A</u>	<u>F21B</u>	<u>F22</u>	<u>F22A</u>	<u>F22B</u>	<u>F22C</u>
(a) "Operates in normal or utility category in compliance with Approved Flight Manual."	X	X	X	X	X	X	--	--	--
(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
(l) "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)

	<u>19</u>	<u>F19</u>	<u>F21</u>	<u>F21A</u>	<u>F21B</u>	<u>F22</u>	<u>F22A</u>	<u>F22B</u>	<u>F22C</u>
(o) "Baggage not to exceed 10 lb." (Must be displayed on the baggage compartment extension cylinder cover)	--	--	X	X	X	X	X	X	X
(p) "Baggage not to exceed 200 lb." (Must be displayed on baggage compartment rear wall)	--	--	--	--	X	X	X	X	X
(q) "Flaps: Maximum 30° (3 rd 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 adjacent to fuel filler caps)	--	--	--	--	--	--	--	X	X
(bb) "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.