



Propeller and Propeller Limits	or 2. <u>Models 411 and 411A</u> Two McCauley full-feathered 3-bladed propeller installations (a) McCauley hub 3AF34C74 with 90LF-0 blades or McCauley hub 3AF37C510 with 90LFB blades Diameter: not over 90 in., not under 84.0 in. with 90LF-0 blades or not under 88.0 in. with 90LFB-0 blades. (no further reduction permitted) Pitch settings at 30 in. station: low 14.0°, ±0.2° feathering 84.5°, ±0.3° (b) Hydraulic governor Woodward A210444, 210439, C210446 or B210529 (c) Propeller spinner and bulkhead assembly, McCauley D-3574 or D-3732 for use with C74 Model Propeller, or McCauley D-7229 for use with C510 Model Propeller.																
Airspeed Limits (CAS)	<table border="0"> <tr> <td style="padding-right: 20px;">Maneuvering</td> <td>180 m.p.h. (156 knots)</td> </tr> <tr> <td>Maximum structural cruising</td> <td>230 m.p.h. (200 knots)</td> </tr> <tr> <td>Never exceed</td> <td>266 m.p.h. (231 knots)</td> </tr> <tr> <td>Landing gear operating</td> <td>160 m.p.h. (139 knots)</td> </tr> <tr> <td>Landing gear extended</td> <td>160 m.p.h. (139 knots)</td> </tr> <tr> <td>Flaps extended 15°</td> <td>180 m.p.h. (156 knots)</td> </tr> <tr> <td>Flaps extended 45°</td> <td>160 m.p.h. (139 knots)</td> </tr> <tr> <td>Minimum control</td> <td>103 m.p.h. ( 90 knots)</td> </tr> </table>	Maneuvering	180 m.p.h. (156 knots)	Maximum structural cruising	230 m.p.h. (200 knots)	Never exceed	266 m.p.h. (231 knots)	Landing gear operating	160 m.p.h. (139 knots)	Landing gear extended	160 m.p.h. (139 knots)	Flaps extended 15°	180 m.p.h. (156 knots)	Flaps extended 45°	160 m.p.h. (139 knots)	Minimum control	103 m.p.h. ( 90 knots)
Maneuvering	180 m.p.h. (156 knots)																
Maximum structural cruising	230 m.p.h. (200 knots)																
Never exceed	266 m.p.h. (231 knots)																
Landing gear operating	160 m.p.h. (139 knots)																
Landing gear extended	160 m.p.h. (139 knots)																
Flaps extended 15°	180 m.p.h. (156 knots)																
Flaps extended 45°	160 m.p.h. (139 knots)																
Minimum control	103 m.p.h. ( 90 knots)																
C.G. Range (Landing Gear Extended)	(+150.6) to (+155.5) at 6500 lb. (+155.7) at 6100 lb. or less (+144.3) at 5200 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.																
Empty Wt. C.G. Range	None																
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80																
Maximum Weight	Landing 6500 lb., takeoff 6500 lb.																
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 or 2 at +238.0) (See manufacturer's equipment list for optional seating arrangements)																
Maximum Baggage	Model 411: 120 lb. (+58.0), 240 lb. (+186.0), 340 lb. (+246.5) Model 411A: 350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)																
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel																
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for undrainable oil																

**I - Model 411, Model 411A (cont'd)**

Control Surface Movements	Wing flaps		Down	45°, +1°, -0°
	Main surfaces			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
	Tab (main surface in neutral)			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	10°, +1°, -0°	Down 26°, +1°, -0°
	Rudder	Right	17°, +1°, -0°	Left 22°, +1°, -0°
	(Read degrees normal to rudder hinge line)			

Serial Nos. Eligible                      Model 411:     411-0001 through 411-0250  
    Model 411A:   411-0251 through 411-0300

**II - Model 401 (Normal Category), Approved September 20, 1966**  
**Model 401A (Normal Category), Approved October 29, 1968**  
**Model 401B (Normal Category), Approved November 12, 1969**

Engines    Two Continental TSIO-520-E or TSIO-520-EB (In any combination)

Fuel    Grade 100 or 100LL aviation gasoline

Engine Limits                                      For all operations, 2700 r.p.m. (300 hp.) 34.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
16,000	34.5
18,000	31.8
20,000	29.5
22,000	27.3
24,000	25.1
26,000	23.0
28,000	22.0
30,000	19.0

Propeller and  
 Propeller Limits                                      Two McCauley full-feathered 3-bladed propeller installations

(a) McCauley hub 3AF32C87 with 82NC-5.5 blades or McCauley hub 3AF32C504 with 82NEA-5.5 blades  
 Diameter: not over 76.5 in., not under 74.0 in.  
 (no further reduction permitted)  
 Pitch settings at 30 in. station:  
                     low 14.2°, ±0.2°  
                     feathered 81.2°, ±0.3°

(b) Model 401: Hydraulic Governor Woodward B210444, C210439, B210446 or A210529F  
Model 401A and 401B: Hydraulic Governor Woodward B210444, C210439, B210446, or A210529F; McCauley DCF290D1/T3, DCF290D2/T3, DCF290D7/T3, DCFU290D1/T3, DCFU290D2/T3, DCFU290D7/T3, DCFU290D13/T3, DCFS290D1/T3, DCFS290D2/T3, DCFS290D7/T3, DCFUS290D1/T3, DCFUS290D2/T3, DCFUS290D7/T3, DCFUS290D13/T3.

(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, and D-5212/D5214.

**II - Model 401, Model 401A, Model 401B** (cont'd)

Airspeed Limits (CAS)	Maneuvering Maximum structural cruising Never exceed Landing gear operating Landing gear extended Flaps extended 15° Flaps extended 45° Minimum control	180 m.p.h. (156 knots) 230 m.p.h. (200 knots) 266 m.p.h. (231 knots) 160 m.p.h. (139 knots) 160 m.p.h. (139 knots) 180 m.p.h. (156 knots) 160 m.p.h. (139 knots) 95 m.p.h. ( 83 knots)
C.G. Range (Landing Gear Extended)	(+150.8) to (+158.1) at 6300 lb. (+158.5) at 5900 lb. or less (+147.5) at 5000 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	Landing 6200 lb., takeoff 6300 lb.	
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.6, 2 at +215.5, 1 or 2 at +238.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)	
Fuel Capacity	102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps Down 45°, +1°, -0° Main surfaces Aileron Up 20°, +1°, -0° Down 20°, +1°, -0° Elevator Up 25°, +1°, -0° Down 15°, +1°, -0° Rudder Right 32°, +1°, -0° Left 32°, +1°, -0° (Read degrees normal to rudder hinge line) Tab (main surface in neutral) Aileron Up 20°, +1°, -0° Down 20°, +1°, -0° Elevator Up 5°, +1°, -0° Down 30°, +1°, -0° Rudder Right 7°, +1°, -0° Left 9°, +1°, -0° (Read degrees normal to rudder hinge line)	
Serial Nos. Eligible	Model 401: 401-0001 through 401-0322 Model 401A: 401A0001 through 401A0132 Model 401B: 401B0001 through 401B0221	

**III - Model 402 (Normal Category), Approved September 20, 1966****Model 402A (Normal Category), Approved January 3, 1969****Model 402B (Normal Category), Approved November 12, 1969**

Engines	Two Continental TSIO-520-E or TSIO-520-EB (In any combination)
Fuel	Grade 100 or 100LL aviation gasoline

**III - Model 402, Model 402A, Model 402B** (cont'd)

Engine Limits

For all operations, 2700 r.p.m. (300 hp.)  
 34.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
16,000	34.5
18,000	31.8
20,000	29.5
22,000	27.3
24,000	25.1
26,000	23.0
28,000	22.0
30,000	19.0

Propeller and  
 Propeller Limits

Two McCauley full-feathered 3-bladed propeller installations  
 (a) McCauley hub 3AF32C87 with 82NC-5.5 blades or McCauley hub 3AF32C504 with 82NEA-5.5 blades  
 Diameter: not over 76.5 in., not under 74.0 in.  
 (no further reduction permitted)  
 Pitch settings at 30 in. station:  
 low 14.2°, ±0.2°  
 feathering 81.2°, ±0.3°

(b) Model 402, 402A and 402B, S/N 402B0001 thru 402B1200  
 Hydraulic governor, Woodward B210444, C210439, B210446F or A210529H; McCauley DCF290D1/T3, DCF290D2/T3, DCFS290D1/T3, DCFS290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFUS290D1/T3, DCFUS290D2/T3, DCF290D7/T3, DCFS290D7/T3, DCFU290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, DCFUS290D7/T3, or DCFUS290D13/T3.

Model 402B, S/N 402B1201 through 402B1300  
 Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D1/T3, DCF290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFS290D4/T3, DCFUS290D4/T3, DCFS290D5/T3, DCFUS290D5/T3, DCF290D7/T3, DCFU290D7/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, or DCFUS290D13/T3. **For aircraft modified by SK414-10B, DCFS290D6/T3, DCFUS290D6/T3, DCFS290D8/T3 or DCFUS290D8/T3.**

Model 402B, S/N 402B1301 and up  
 Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D1/T3, DCF290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFS290D4/T3, DCFUS290D4/T3, DCFS290D6/T3, DCFUS290D6/T3, DCF290D7/T3, DCFU290D7/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFS290D8/T3, DCFUS290D8/T3, DCFU290D13/T3, DCFUS290D12/T3, or DCFUS290D13/T3.

(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D5214.

**III - Model 402, Model 402A, Model 402B** (cont'd)

Airspeed Limits (CAS)	Model 402, S/N 402-0001 and up Model 402A, S/N 402A0001 and up <u>Model 402B, S/N 402B0001 through 402B0500</u>	
	Maneuvering	180 m.p.h. (156 knots)
	Maximum structural cruising	230 m.p.h. (200 knots)
	Never exceed	266 m.p.h. (231 knots)
	Landing gear operating	160 m.p.h. (139 knots)
	Landing gear extended	160 m.p.h. (139 knots)
Airspeed Limits (Cont.) (CAS)	Flaps extended 15°	180 m.p.h. (156 knots)
	Flaps extended 45°	160 m.p.h. (139 knots)
	Minimum control	95 m.p.h. ( 83 knots)
	<u>Model 402B, S/N 402B0501 through 402B1000</u>	
	Maneuvering	156 KCAS (180 m.p.h.)
	Maximum structural cruising	200 KCAS (230 m.p.h.)
	Never exceed	231 KCAS (266 m.p.h.)
	Landing gear operating	140 KCAS (161 m.p.h.)
	Landing gear extended	140 KCAS (161 m.p.h.)
	Flaps extended 15°	160 KCAS (184 m.p.h.)
	Flaps extended 45°	140 KCAS (161 m.p.h.)
	Minimum control	83 KCAS ( 95 m.p.h.)
(IAS)	<u>Model 402B, S/N 402B1001 and up</u>	
	Maneuvering	156 KIAS (180 m.p.h.)
	Maximum structural cruising	199 KIAS (229 m.p.h.)
	Never exceed	230 KIAS (265 m.p.h.)
	Landing gear operating	140 KIAS (161 m.p.h.)
	Landing gear extended	140 KIAS (161 m.p.h.)
	Flaps extended 15°	160 KIAS (184 m.p.h.)
	Flaps extended 45°	140 KIAS (161 m.p.h.)
	Minimum control	82 KIAS ( 94 m.p.h.)
C.G. Range (Landing Gear Extended)	(+150.8) to (+159.7) at 6300 lb. (+160.2) at 5900 lb. or less (+147.5) at 5000 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	<u>Models 402, 402A, 402B, S/N 402B0001 through 402B1300</u> Landing 6200 lb., takeoff 6300 lb.	
	<u>Model 402B, S/N 402B1301 and up</u> Landing 6200 lb., ramp 6335 lb., takeoff 6300 lb.	
No. of Seats	<u>Model 402</u> 9 (2 at +137.0, 2 at +166.0, 2 at +193.0, 2 at +220.0, 1 at +247.0)	
	<u>Model 402A and 402B, S/N 402B0001 through 402B0300</u> 9 or 10 (2 at +137.0, 2 at +166.0, 2 at +193.0, 2 at +220.0, 1 or 2 at +247.0)	

**III - Model 402, Model 402A, Model 402B** (cont'd)

Model 402B, S/N 402B0301 and up

6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 or 2 at +261.0)  
 9 (with photographic provisions option) (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 1 at +246.0)  
 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0)  
 (See manufacturer's equipment list for optional seating arrangements)

Maximum Baggage

Models 402, 402A and 402B, S/N 402B0001 through 402B0300  
 350 lb. (+71.0), 240 lb. (+186.0), 170 lb. (+247.0)

Model 402B, S/N 402B0301 and up

250 lb. (+32.0), 350 lb. (+71.0), 240 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)

Fuel Capacity

102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0)  
 See NOTE 1 for data on unusable fuel

Oil Capacity

26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine)  
 See NOTE 1 for data on undrainable oil

Control Surface Movements

Wing flaps		Down	45°, +1°, -0°
Main surfaces			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°
Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
(Read degrees normal to rudder hinge line)			
Tab (main surface in neutral)			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	5°, +1°, -0°	Down 30°, +1°, -0°
Rudder	Right	7°, +1°, -0°	Left 9°, +1°, -0°
(Read degrees normal to rudder hinge line)			

Serial Nos. Eligible

Model 402: 402-0001 through 402-0322  
 Model 402A: 402A0001 through 402A0129  
 Model 402B: 402B0001 through 402B1384

**IV - Model 421 (Normal Category), Approved May 1, 1967**  
**Model 421A (Normal Category), Approved November 19, 1968**

Engines

Two Continental GTSIO-520-D, reduction gear ratio .667:1

Fuel

Grade 100 or 100LL aviation gasoline

Engine Limits

For all operations, 2275 propeller r.p.m. (375 hp.)  
 39.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Model 421</u>		<u>Model 421A</u>	
Altitude (ft.)	Max. Allowable Mp. (in. Hg.)	Altitude (ft.)	Max. Allowable Mp. (in. Hg.)
16,000	39.5	16,000	39.5
18,000	32.5	18,000	37.5
20,000	32.5	20,000	35.5
22,000	30.0	22,500	32.5
24,000	27.0	24,000	30.5
26,000	24.5	26,000	28.0
28,000	22.0	28,000	25.5
30,000	20.0	30,000	23.0

**IV - Model 421, Model 421A** (cont'd)

Propeller and Propeller Limits	Two McCauley full-feathered 3-bladed propeller installations	
	(a) McCauley hub 3AF34C92 with 90LF-0 blades or McCauley hub 3AF37C516 with 90LFB-0 blades.	
	Diameter: not over 90.0 in., not under 88.0 in. (no further reduction permitted)	
	Pitch settings at 30 in. station: low 16.9°, ±0.2° feathering 84.5°, ±0.3°	
	(b) Hydraulic Governor Woodward 210594, 210595, 210596, or 210597.	
	(c) Propeller spinner and bulkhead assembly, McCauley D-3573/D-3576, for use with C92 Model propeller, or McCauley D-7229 spinner and bulkhead assembly for use with C516 Model propeller.	
Airspeed Limits (CAS)	Maneuvering	184 m.p.h. (160 knots)
	Maximum structural cruising	230 m.p.h. (200 knots)
	Never exceed	272 m.p.h. (236 knots)
	Landing gear operating	165 m.p.h. (143 knots)
	Landing gear extended	165 m.p.h. (143 knots)
	Flaps extended 15°	180 m.p.h. (156 knots)
	Flaps extended 45°	165 m.p.h. (143 knots)
	Minimum control	106.5 m.p.h. (93 knots)
C.G. Range (Landing Gear Extended)	<u>Model 421</u>	<u>Model 421A</u>
	(+151.9) to (+155.5) at 6800 lb.	(+152.1) to (+155.5) at 6840 lb.
	(+155.7) at 6400 lb. or less	(+155.7) at 6500 lb. or less
	(+144.3) at 5200 lb. or less	(+144.3) at 5200 lb. or less
	Straight line variation between points given	
	Landing gear retracted moment change: +889 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80	
Maximum Weight	<u>Model 421</u> Landing 6500 lb., takeoff 6800 lb. (See NOTE 4 for takeoff 6840 lb.)	
	<u>Model 421A</u> Landing 6500 lb., takeoff 6840 lb.	
No. of Seats	<u>Model 421</u> 6 (2 at +137.0, 2 at +175.5, 2 at +215.5)	
	<u>Model 421A</u> 6 or 7 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 at +246.5) (See manufacturer's equipment list for optional seating arrangement)	
Maximum Baggage	350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)	
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil	



**IV - Model 421, Model 421A** (cont'd)

Control Surface Movements	Wing flaps		Down	45°, +1°, -0°
	Main surfaces			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder	Right	25°, +1°, -0°	Left 25°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
	Tab (main surface in neutral)			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	10°, +1°, -0°	Down 26°, +1°, -0°
	Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
Serial Nos. Eligible	Model 421:	421-0001 through 421-0200		
	Model 421A:	421A0001 through 421A0158		

**V - Model 414 (Normal Category), Approved September 24, 1969**

Engines	Two Continental TSIO-520-J or TSIO-520-JB (In any combination) (S/N 414-0001 through 414-0800)
	Two Continental TSIO-520-N or TSIO-520-NB (In any combination) (S/N 414-0801 and up)
Fuel	Grade 100 or 100LL aviation gasoline
Engine Limits	For all operations, 2700 r.p.m. (310 hp.) 36.0 in. Hg. Mp. (S/N 414-0001 through 414-0800) 38.0 in. Hg. Mp. (S/N 414-0801 and up) up to critical altitude of 20,000 ft. in standard atmosphere. Above 20,000 ft. the following maximum Mp. applies for maximum r.p.m.

S/N 414-0001 through 414-0800

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	36.0
22,000	33.6
24,000	31.2
26,000	28.8
28,000	26.4
30,000	24.0

S/N 414-0801 and up

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	38.0
22,000	35.2
24,000	32.3
26,000	29.8
28,000	27.4
30,000	25.0

Propeller and Propeller Limits	Two McCauley full-feathered 3-bladed propeller installations (a) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades Diameter: not over 76.5 in., not under 74.5 in. (S/N 414-0001 through S/N 414-0800), not under 75.0 in. (S/N 414-0801 and up) (no further reduction permitted) Pitch settings at 30 in. station: low 14.9°, ±0.2°, feathering 81.2°, ±0.3°
-----------------------------------	---

**V - Model 414 (Normal Category), Approved September 24, 1969**

Propeller and Propeller Limits	(b) <u>Model 414 S/N 414-0001 thru 414-0800</u> Hydraulic governor, Woodward B210444, C210439, B210446F, or A210529H McCauley DCF290D1/T3,DFC290D2/T3, DCF290D7/T3, DCFU290D1/T3, DCFS290D1/T3, DCFUS290D1/T3, DCFS290D2/T3, DCFU290D2/T3, DCFU290D7/T3, DCFU290D13/T3, DCFS290D7/T3, DCFUS290D2/T3, DCFUS290D7/T3 or DCFUS290D13/T3 <u>Model 414 S/N 414-0801 and up</u> McCauley DCFS290D4/T3, DCFUS290D4/T3, DCFS290D5/T3, DCFUS290D5/T3, DCFS290D7/T3, or DCFUS290D7/T3, DCFS290D8/T3, DCFUS290D8/T3, DCFUS290D12/T3, or DCFUS290D13/T3	
	(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D-5214.	
Airspeed Limits (CAS)	<u>S/N 414-0001 through 414-0450</u>	
	Maneuvering	180 m.p.h. (156 knots)
	Maximum structural cruising	230 m.p.h. (200 knots)
	Never exceed	266 m.p.h. (231 knots)
	Flaps extended 15°	180 m.p.h. (157 knots)
	Flaps extended 45°	160 m.p.h. (139 knots)
	Landing gear operating	160 m.p.h. (139 knots)
	Landing gear extended	160 m.p.h. (139 knots)
	Minimum control	97 m.p.h. ( 84 knots)
	<u>S/N 414-0451 through 414-0800</u>	
	Maneuvering	156 KCAS (180 m.p.h.)
	Maximum structural cruising	200 KCAS (230 m.p.h.)
	Never exceed	231 KCAS (266 m.p.h.)
	Flaps extended 15°	160 KCAS (184 m.p.h.)
	Flaps extended 45°	140 KCAS (161 m.p.h.)
	Landing gear operating	140 KCAS (161 m.p.h.)
	Landing gear extended	140 KCAS (161 m.p.h.)
	Minimum control	84 KCAS ( 97 m.p.h.)
(IAS)	<u>S/N 414-0801 and up</u>	
	Maneuvering	160 KIAS (184 m.p.h.)
	Maximum structural cruising	205 KIAS (236 m.p.h.)
	Never exceed	236 KIAS (272 m.p.h.)
	Flaps extended 15°	164 KIAS (189 m.p.h.)
	Flaps extended 45°	147 KIAS (169 m.p.h.)
	Landing gear operating	143 KIAS (165 m.p.h.)
	Landing gear extended	143 KIAS (165 m.p.h.)
	Minimum control	82 KIAS ( 94 m.p.h.)
C.G. Range (Landing Gear Extended)	(+150.9) to (+159.7) at 6350 lb. (+160.2) at 5950 lb. or less (+147.5) at 5000 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80	

**V - Model 414** (cont'd)

Maximum Weight	Landing 6200 lb., takeoff 6350 lb.
No. of Seats	<u>S/N 414-0001 through 414-0350</u> 6 or 7 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 at +246.5)  <u>S/N 414-0351 and up</u> 6 (2 at +137.0, 2 at +175.0, 2 at +218.0) 7 (with toilet option) (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 at +250.0) (See manufacturer's equipment list for optional seating arrangements)
Maximum Baggage	<u>S/N 414-0001 through 414-0350</u> 350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5) <u>S/N 414-0351 and up</u> 350 lb. (+71.0), 240 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)
Fuel Capacity	102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0) See NOTE 1 for data on unusable fuel
Oil Capacity	26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil
Control Surface Movements	Wing flaps Down 45°, +1°, -0° Main surfaces Aileron Up 20°, +1°, -0° Down 20°, +1°, -0° Elevator Up 25°, +1°, -0° Down 15°, +1°, -0° Rudder Right 32°, +1°, -0° Left 32°, +1°, -0° (Read degrees normal to rudder hinge line) Tab (main surface in neutral) Aileron Up 20°, +1°, -0° Down 20°, +1°, -0° Elevator Up 5°, +1°, -0° Down 30°, +1°, -0° Rudder Right 11°, +1°, -0° Left 16°, +1°, -0° (Read degrees normal to rudder hinge line)
Serial Nos. Eligible	414-0001 through 414-0965

**VI - Model 421B, Golden Eagle, (Normal Category), Approved April 28, 1970**

Engines	Two Continental GTSIO-520-H reduction gear ratio .667:1
Fuel	Grade 100 or 100LL aviation gasoline
Engine Limits	For all operations, 2275 propeller r.p.m. (375 hp.) 39.5 in. Hg. Mp. up to critical altitude of 18,000 ft. in standard atmosphere. Above 18,000 ft. the following maximum Mp. applies for maximum r.p.m.:

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
18,000	39.5
20,000	37.5
22,000	35.5
24,000	33.5
25,000	32.5
26,000	31.3
28,000	28.5
30,000	25.5

**VI - Model 421B** (cont'd)Propeller and  
Propeller Limits

Two McCauley full-feathered 3-bladed propeller installations

- (a) McCauley hub 3AF34C92 with 90LF-0 blades or
- 
- McCauley hub 3AF37C516 with 90LFB-0 blades

Diameter: not over 90.0 in., not under 88.0 in.

(no further reduction permitted)

Pitch settings at 30 in. station:

low 16.9°, ±0.2°

feathering 84.5°, ±0.3°

- (b)
- Model 421B S/N 421B0001 thru 421B0500

Hydraulic governor Woodward 210594, 210595, 210596 or 210597

Model 421B S/N 421B0501 and up

McCauley DCF290D2/T4, DFC7290D2/T4, DCFS290D2/T4, DCFUS290D2/T4,

DCF290D7/T4, DCFU290D7/T4, DCFS290D7/T4, DCFUS290D7/T4,

DCFU290D13/T4 or DCFUS290D13/T4.

- (c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3796.

Airspeed Limits  
(CAS)Model 421B: S/N 421B0001 through 421B0500

Maneuvering	175 m.p.h. (152 knots)
Maximum structural cruising	230 m.p.h. (200 knots)
Never exceed	274 m.p.h. (238 knots)
Landing gear operating	165 m.p.h. (143 knots)
Landing gear extended	165 m.p.h. (143 knots)
Flaps extended 15° (S/N 421B0001 through 421B0200)	180 m.p.h. (156 knots)
Flaps extended 15° (S/N 421B0201 through 421B0500)	200 m.p.h. (174 knots)
Flaps extended 45°	165 m.p.h. (143 knots)
Minimum control	100 m.p.h. ( 87 knots)

Model 421B: S/N 421B0501 and up

Maneuvering	152 KCAS (175 m.p.h.)
Maximum structural cruising	200 KCAS (230 m.p.h.)
Never exceed	238 KCAS (274 m.p.h.)
Landing gear operating	145 KCAS (167 m.p.h.)
Landing gear extended	145 KCAS (167 m.p.h.)
Flaps extended 15°	175 KCAS (202 m.p.h.)
Flaps extended 45°	145 KCAS (167 m.p.h.)
Minimum control (S/N 421B0501 through 421B0800)	87 KCAS (100 m.p.h.)
Minimum control (S/N 421B0801 and up)	82 KCAS ( 94 m.p.h.)

C.G. Range (Landing  
Gear Extended)S/N 421B0001 through 421B02006, 7, or 8 Place

(+151.8) to (+156.4) at 7250 lb.

(+156.7) at 6850 lb. or less

(+147.1) at 6100 lb. or less

10 Place

(+151.8) to (+157.7) at 7250 lb.

(+158.0) at 6850 lb. or less

(+147.1) at 6100 lb. or less

S/N 421B0201 and up

(+152.6) to (+156.5) at 7450 lb.

(+156.7) at 7050 lb. or less

(+147.1) at 6100 lb. or less

(+152.6) to (+157.8) at 7450 lb.

(+158.0) at 7050 lb. or less

(+147.1) at 6100 lb. or less

Straight line variation between points given

Landing gear retracted moment change: +889 in.-lb.

**VI - Model 421B** (cont'd)

Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.9 and +238.55 on W.L. +93.80	
Maximum Weight	Landing 7200 lb., takeoff 7250 lb. (S/N 421B0001 through 421B0200) Landing 7200 lb., takeoff 7450 lb. (S/N 421B0201 and up)	
No. of Seats	<u>S/N 421B0001 through 421B0300</u> 6, 7, or 8 (2 at +137.0, 2 at +175.5, 2 at +215.5, 2 at +245.7) or 10 (2 at +137.0, 2 at +161.0, 2 at +190.0, 2 at +218.0, 2 at +249.0)  <u>S/N 421B0301 and up</u> 6, 7, or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 2 at +261.0) or 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	<u>S/N 421B0001 through 421B0300</u> 250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 340 lb. (+246.5) <u>S/N 421B0301 and up</u> 250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)	
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Down 45°, +1°, -0°
	Main surfaces	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 25°, +1°, -0°      Down 15°, +1°, -0°
	Rudder	Right 25°, +1°, -0°      Left 25°, +1°, -0°
		(S/N 421B0001 through 421B0800)
		Right 32°, +1°, -0°      Left 32°, +1°, -0°
		(S/N 421B0801 and up)
		(Read degrees normal to rudder hinge line)
	Tab (main surface in neutral)	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 12°, +1°, -0°      Down 20°, +1°, -0°
	Rudder	Right 11°, +1°, -0°      Left 16°, +1°, -0°
		(Read degrees normal to rudder hinge line)
Serial Nos. Eligible	421B0001 through 421B0970	

**VII - Model 421C, Golden Eagle, (Normal Category), Approved October 28, 1975**

Engines	Two Continental GTSIO-520-L reduction gear ratio .667:1 (S/N 421C0001 through 421C1000)
	Two Continental GTSIO-520-N reduction gear ratio .667:1 (S/N 421C1001 and up)
Fuel	Grade 100 or 100LL aviation gasoline

**VII - Model 421C** (cont'd)

## Engine Limits

For all operations, 2235 propeller r.p.m. (375 hp.)  
39.0 in. Hg. Mp. up to critical altitude of 20,000 ft. in standard atmosphere. Above 20,000 ft. the following maximum Mp. applies for maximum r.p.m.:

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	39.0
22,000	36.5
24,000	34.0
25,000	32.5
26,000	31.0
28,000	28.0
30,000	25.0

Propeller and  
Propeller Limits

Two McCauley full-feathering 3-bladed propeller installations

(a) McCauley hub 3FF32C501 with 90UMB-0 blades

Diameter: not over 90.0 in., not under 88.0 in.

(no further reduction permitted)

Pitch settings at 30 in. station:

low 16.6°, ±0.2°, feathering 84.6°, ±0.3°

(b) S/N 421C0001 through 421C0800

Hydraulic Governor McCauley DCF290D2/T6, DCFU290D2/T6,

DCFS290D2/T6, DCFUS290D2/T6, DCF290D7/T6, DCFU290D7/T6 or

DCFU290D13/T6, DCFS290D7/T6, DCFUS290D7/T6 or DCFUS290D13/T6

S/N 421C0801 and up

Hydraulic Governor McCauley DCF290D7/T6, DCFU290D7/T6 or

DCFU290D13/T6, DCFS290D9/T6, DCFUS290D9/T6

(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-4506 or McCauley D-5212/D-5217

Airspeed Limits  
(IAS)

Maneuvering	151 KIAS (174 m.p.h.)
Maximum structural cruising	201 KIAS (231 m.p.h.)
Never exceed	240 KIAS (276 m.p.h.)
Landing gear operating	176 KIAS (203 m.p.h.)
Landing gear extended	176 KIAS (203 m.p.h.)
Flaps extended 15°	176 KIAS (203 m.p.h.)
Flaps extended 45°	146 KIAS (168 m.p.h.)
Minimum control	80 KIAS ( 92 m.p.h.)

C.G. Range (Landing  
Gear Extended)

6, 7, 8, 9 or 10 Place

(+152.6) to (+158.0) at 7450 lb.

(+147.1) at 6100 lb. or less

Straight line variation between points given

Landing gear retracted moment change:

+917 in.-lb. (S/N 421C0001 through 421C0800)

+1318 in.-lb. (S/N 421C0801 and up)

## Empty Wt. C.G. Range

None

## Leveling Means

External screw heads on right side of fuselage at stations +213.9 and +238.55 on W.L. +93.80

## Maximum Weight

S/N 421C0001 through 421C0400

Landing 7200 lb., takeoff 7450 lb.

S/N 421C0401 and up

Landing 7200 lb., takeoff 7450 lb., ramp 7500 lb.

**VII - Model 421C** (cont'd)

No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 at +261.0) or 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)	
Fuel Capacity	213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Down 45°, +1°, -0°
	Main surfaces	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 25°, +1°, -0°      Down 15°, +1°, -0°
	Rudder	Right 32°, +1°, -0°      Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
	Tab (main surface in neutral)	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 12°, +1°, -0°      Down 20°, +1°, -0°
	Rudder	Right 11°, +1°, -0°      Left 16°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
Serial Nos. Eligible	421C0001 through 421C1807	

**VIII - Model 414A, Chancellor, (Normal Category), Approved September 30, 1977**

Engines	Two Continental TSIO-520-N or TSIO-520-NB (In any combination) (S/N 414A0001 through 414A0200)	
	Two Continental TSIO-520-NB (S/N 414A0201 and up)	
Fuel	Grade 100 or 100LL Aviation Gasoline	
Engine Limits	For all operations, 2700 r.p.m., 310 hp., 38.0 in. Hg. Mp. up to critical altitude of 20,000 ft. in standard atmosphere. Above 20,000 ft. the following maximum Mp. applies for maximum r.p.m.:	
	<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
	20,000	38.0
	22,000	35.2
	24,000	32.3
	26,000	29.8
	28,000	27.4
	30,000	25.0
Propeller and Propeller Limits	Two McCauley full-feathering three-bladed propeller installations	
	(a)	McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades Diameter: not over 76.5 in., not under 75.0 in. (no further reduction permitted) Pitch settings at 30 in. station: low 14.9°, ±0.2°, feathering 81.2°, ±0.3°
	or (b)	McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades Diameter: not over 75.5 in., not under 75 in. Pitch settings at 30 in. station: low 15.2°, ±0.2° feathered 81.2°, ±0.3°

**VIII - Model 414A** (cont'd)Propeller and  
Propeller Limits

- (c) S/N 414A0001 through 414A0801  
Hydraulic governor McCauley DCF290D2/T3, DCFU290D2/T3, DCF290D4/T3, DCFUS290D4/T3, DCF290D6/T3, DCFUS290D6/T3, DCF290D7/T3, DCFU290D7/T3, DCFU290D13/T3, DCF290D7/T3, DCFUS290D7/T3, DCFUS290D13/T3, DCF290D8/T3, DCFUS290D8/T3 or DCFUS290D12/T13

S/N 414AC0801 and up

Hydraulic governor McCauley DCF290D2/T3, DCFU290D2/T3, DCF290D7/T3, DCFU290D7/T3 or DCFU290D13/T3, DCF290D9/T3, DCFUS290D9/T3

- (d) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3796, or McCauley D-5212/D-5214

Airspeed Limits  
(IAS)

Maneuvering	145 KIAS (167 m.p.h.)
Max. structural cruising	203 KIAS (234 m.p.h.)
Never exceed	237 KIAS (273 m.p.h.)
Landing gear operating	177 KIAS (204 m.p.h.)
Landing gear extended	177 KIAS (204 m.p.h.)
Flaps extended 15°	177 KIAS (204 m.p.h.)
Flaps extended 45°	146 KIAS (168 m.p.h.)
Minimum control	79 KIAS ( 91 m.p.h.)

C.G. Range (Landing  
Gear Extended)

(+151.3) to (+160.0) at 6750 lb.  
(+147.8) at 5800 lb. or less  
Straight line variation between points given  
Landing gear retracted moment change: +917 in.-lb.

## Empty Wt. C.G. Range

None

## Leveling Means

External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80

## Maximum Weight

Ramp 6785 lb., takeoff and landing 6750 lb.

## No. of Seats

6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, Optional: 1 or 2 at +261.0 or with toilet option, 1 at +250.0)  
(See manufacturer's equipment list for optional seating arrangements)

## Maximum Baggage

250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)

## Fuel Capacity

S/N 414A0001 through 414A0200

213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0)  
See NOTE 1 for data on unusable fuel

S/N 414A0201 through 414A0400

213.4 gal. (2 wing tanks, 106.7 gal. ea., 102.0 gal. usable at +161.0)  
See NOTE 1 for data on unusable fuel

S/N 414A0401 and up

213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0)  
See NOTE 1 for data on unusable fuel

## Oil Capacity

26 qt. (13 qt. in ea. engine at +110.9; usable 6.5 qt. per engine)  
See NOTE 1 for data on undrainable oil



**VIII - Model 414A** (cont'd)

Control Surface Movements	Wing flaps		Down	45°, +1°, -0°
	Main surfaces			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
	Tab (main surface in neutral)			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	12°, +1°, -0°	Down 20°, +1°, -0°
	Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°
	(Read degrees normal to rudder hinge line)			

Serial Nos. Eligible 414A0001 through 414A1212

**IX - Model 402C, Businessliner/Utiliner, (Normal Category), Approved September 25, 1978**

Engines	Two Continental TSIO-520-VB rated at 325 hp.
Fuel	Grade 100 or 100LL aviation gasoline
Engine Limits	Takeoff and engine inoperative, 2700 r.p.m., 39.0 in. Hg. Mp. up to 12,000 ft. Above 12,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
S.L. to	
12,000	39.0
14,000	37.2
16,000	37.2
18,000	32.0
20,000	29.5
22,000	27.0
24,000	25.0
26,000	23.0
28,000	21.0
30,000	19.0

Propeller and Propeller Limits	Two McCauley full-feathering three-bladed propeller installations
	(a) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades
	Diameter: not over 76.5 in., not under 75.0 in.
	(no further reduction permitted)
	Pitch settings at 30 in. station:
	low 14.9°, ±0.2°, feathering 82.2°, ±0.3°
or	(b) McCauley hub 3AF32C93 with 82NC-6.5 blades or McCauley hub 3AF32C505 with 82NEA-6.5 blades
	Diameter: not over 75.5 in., not under 75.0 in.
	Pitch settings at 30 in. station:
	low 15.2°, ±0.2°, feathering 82.2°, ±0.3°
	(c) <u>S/N 402C0001 through 402C0600</u>
	Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFUS290D13/T3, DCFUS290D8/T3, or DCFUS290D12/T3
	<u>S/N 689, and 402C0601 and up</u>
	Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D7/T3, DCFU290D7/T3 or DCFU290D13/T3, DCFS290D9/T3, DCFUS290D9/T3
	(d) Propeller spinner and bulkhead assembly; McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D-5214

**IX - Model 402C** (cont'd)

Airspeed Limits (IAS)	Maneuvering	150 KIAS (173 m.p.h.)
	Max. structural cruising	205 KIAS (236 m.p.h.)
	Never exceed	235 KIAS (270 m.p.h.)
	Landing gear operating	180 KIAS (207 m.p.h.)
	Landing gear extended	180 KIAS (207 m.p.h.)
	Flaps extended 15°	180 KIAS (207 m.p.h.)
	Flaps extended 45°	149 KIAS (172 m.p.h.)
	Minimum control	80 KIAS ( 92 m.p.h.)
C.G. Range (Landing Gear Extended)	(+151.58) to (+160.67) at 6850 lb. (+149.08) at 5800 lbs. or less Straight line variation between points given Landing gear retracted moment change: +917 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	Ramp, 6885 lbs., takeoff and landing 6850 lbs.	
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 or 2 at +261.0) 9 (with photographic provisions option) (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 1 at +246.0) 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	250 lbs. (+32.0), 350 lbs. (+71.0), 400 lbs. (+186.0), 400 lbs. (+266.0), 100 lbs. (+282.0)	
Fuel Capacity	<u>S/N 402C0001 through 402C0200</u> 213.4 gal. (2 wing tanks, 106.7 gal. ea., 102 gal. usable at +161.0) See NOTE 1 for data on unusable fuel	
	<u>S/N 689, and 402C0201 and up</u> 213.4 gal. (2 wing tanks, 106.7 gal. ea., 103 gal. usable at +161.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +110.9; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Down 45°, +1°, -0°
	Main surfaces	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 25°, +1°, -0°      Down 15°, +1°, -0°
	Rudder	Right 32°, +1°, -0°      Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
	Tab (main surface in neutral)	
	Aileron	Up 20°, +1°, -0°      Down 20°, +1°, -0°
	Elevator	Up 12°, +1°, -0°      Down 20°, +1°, -0°
	Rudder	Right 11°, +1°, -0°      Left 16°, +1°, -0°
(Read degrees normal to rudder hinge line)		
Serial Nos. Eligible	689, 402C0001 through 402C1020	

**X - Model 425, Corsair or Conquest I (See NOTE 7), (Normal Category), Approved July 1, 1980**

Engines Two Pratt & Whitney Aircraft of Canada, Ltd., PT6A-112 turboprop

Fuel Aviation turbine fuel Jet A, Jet A-1, or Jet B, JP-4, JP-5 or JP-8. For required use of anti-icing additives and emergency use of aviation gasoline, refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

Engine Limits	Operating Limits				
	Shaft Horsepower Power	Ng Gas Generator Speed (% rpm)	Indicated Torque (ft.-lbs.)	Prop. Shaft Speed (rpm)	Maximum Permissible Interturbine Temp. (°C.)
Takeoff static & max. continuous	450*	101.6	1244	1900	725
Starting (2 sec.)	--	--	--	--	1090
Maximum reverse	430	101.6	1244	1815	725

**\*Flat Rated:**

The engines may produce more power than that for which the airplane has been certificated. Under these conditions, the placarded torque meter, ITT, or Ng limitations shall not be exceeded.

- Propeller and  
Propeller Limits
- (1) Two Hartzell three-bladed, full-feathered, reversible  
Hub: HC-B3TN-3C  
Blade: T10178B-8R  
Diameter: Not over 93-3/8 in., not under 91 inches; no further reduction permitted  
Pitch at 30-inch station:  
Low pitch 20.2°  
Feathered 86.7°  
Reverse -10.9°
- (2) Two McCauley three-bladed, full-feathered, reversible  
Hub: 3GFR34C701  
Blade: 93KB-0  
Diameter: Not over 93 inches, not under 90-5/8 inches;  
no further reduction permitted  
Pitch at 30-inch station:  
Low pitch 18.5°  
Feathered 85.5°  
Reverse -13.5°

Propellers may be interchanged in any combination.

Airspeed Limits (IAS)	$V_{MO}$ (Max Operating)	230 knots 265 m.p.h.
	Sea level to 21,800 ft.	
	$M_{MO}$ Above 21,800 ft.	.52 mach
	$V_A$ (Maneuvering) at 8200 lbs.	154 knots 177 m.p.h.
	$V_A$ (Maneuvering) at 8600 lbs.	157 knots 181 m.p.h.
	$V_{FE}$ (Flaps extended)	
	45° (Landing)	145 knots 169 m.p.h.
	15° (Takeoff & Approach)	175 knots 201 m.p.h.
	$V_{MCA}$ (Min. control speed) Air at 8200 lbs.	90 knots 104 m.p.h.
	$V_{MCA}$ (Min. control speed) Air at 8600 lbs.	92 knots 106 m.p.h.
$V_{LE}$ (Landing gear extended)	175 knots 201 m.p.h.	

**X - Model 425** (cont'd)C.G. Range (Landing  
Gear Extended)S/N 425-0001 through 425-0176 (See NOTE 7)  
(155.66) to (160.04) at 8200 lbs.  
(150.65) to (160.04) at 6478 lbs. or lessS/N 425-0177 and up  
(156.81) to (160.04) at 8600 lbs.  
(150.65) to (160.04) at 6478 lbs. or lessStraight line variation between points given  
Moment change due to retracting landing gear (+1448 in.-lb.)

Empty Wt. C.G. Range

None

Leveling Means

External screw heads on right side of fuselage at stations +213.9  
and +238.55 on W.L. +93.80

Maximum Weight

	<u>S/N 425-0001 through 425-0176</u> <u>(See NOTE 7)</u>	<u>S/N 425-0177</u> <u>and up</u>
Takeoff	8200 lbs.	8600 lbs.
Landing	8000 lbs.	8000 lbs.
Zero fuel	6740 lbs.	7000 lbs.
Ramp	8275 lbs.	8675 lbs.

No. of Seats

6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 2 at +261.0)  
See manufacturer's equipment list for optional seating arrangements

Maximum Baggage

250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+266.0), 100 lb. (+282.0)

Fuel Capacity

2497.8 lb. (372.8 gal.) total in two wing tanks, 1248.9 lb. (186.4 gal.) each; 2452.2 lb.  
(366.0 gal.) usable total, 1226.1 lb. (133 gal.) in each tank at +163.3. Fuel weight based  
on 6.70 lb./gal. See NOTE 1 for data on unusable fuel.

Oil Capacity

5.28 gal. total, 5.28 gal. usable (2.3 gal. in each engine-mounted tank at +125.3).  
See NOTE 1 for data on undrainable oil.Maximum Operating  
Altitude

30,000 ft.

Control Surface Movements

Wing flaps		Down	45°, +1°, -0°
Main surfaces			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	19°, +1°, -0°	Down 15°, +1°, -0°
Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
(Read degrees normal to rudder hinge line)			
Tab (main surface in neutral)			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	6°, +1°, -0°	Down 15°, +1°, -0°
Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°
(Read degrees normal to rudder hinge line)			

Serial Nos. Eligible

425-0001 through 425-0236

Data Pertinent to All Models

Datum

100.00 in. forward face of fuselage bulkhead forward of rudder pedals.

**X - Model 425** (cont'd)  
Certification Basis

Models 401, 401A, 401B, 402, 402A, 402B, 411, 411A, 414, 421, 421A:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8.

Model 421B:

Part 3 of the Civil Air Regulations dated May 15, 1956, except Subpart B, as amended by 3-1 through 3-5 and 3-8; Subpart B, paragraphs 23.25 through 23.253 of the Federal Aviation Regulations dated February 1, 1965, as amended by 23-1 through 23-7.

Models 414A and 421C:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8, excluding the following portions:

Subpart B and paragraphs 3.356, 3.357, 3.358, 3.359, 3.411, 3.429, 3.433, 3.434, 3.435, 3.436, 3.437, 3.445, 3.581, 3.582, 3.583, 3.584, 3.585, 3.587, 3.628, 3.666, 3.672, 3.673, 3.674, 3.675, 3.700(c), 3.728, 3.767(a) and 3.767(b). Include the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-14; Subpart B and paragraphs 23.729, 23.901, 23.909, 23.951, 23.954, 23.955, 23.959, 23.973, 23.1041, 23.1043, 23.1047, 23.1143, 23.1305, 23.1387(e), 23.1435 and 23.1557(c); as amended by 23-1 through 23-21, paragraph 23.1385(c); as amended by 23-1 through 23-23, paragraph 23.1327. Add paragraph 23.1559(b) for Model 414A only. Findings of Equivalent Level of Safety were made for CAR 3.637, 3.757, and 3.778(a).

Model 402C:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8, excluding the following portions: Subpart B and paragraphs 3.356, 3.357, 3.358, 3.359, 3.411, 3.429, 3.433, 3.434, 3.435, 3.436, 3.437, 3.445, 3.581, 3.582, 3.583, 3.584, 3.585, 3.587, 3.628, 3.666, 3.672, 3.673, 3.674, 3.675, 3.700(c), 3.728, 3.767(a) and 3.767(b). Include the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-14: Subpart B and paragraphs 23.729, 23.901, 23.909, 23.951, 23.954, 23.955, 23.959, 23.973, 23.1041, 23.1043, 23.1047, 23.1143, 23.1305, 23.1387(e), 23.1435, 23.1557(c), and 23.1559(b); as amended by 23-1 through 23-21, paragraph 23.1385(c); as amended by 23-1 through 23-23, paragraph 23.1327. Part 36 of the Federal Aviation Regulations dated December 1, 1969, as amended by 36-1 through 36-7. Findings of Equivalent Level of Safety were made for CAR 3.637, 3.757, and 3.778(a).

Model 425:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-6 and 3-8 as follows: Paragraphs 3.0 through 3.20, 3.291 through 3.307, 3.317 through 3.347, 3.371 through 3.401, 3.651, 3.652, 3.655(c) and (d), 3.661, 3.662, 3.668, 3.686 through 3.699, 3.711 through 3.728, 3.749, 3.791, and 3.792; the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-21: Paragraphs 23.21 through 23.33, 23.45(a) through (d), 23.49 through 23.179, 23.181(a), 23.201 through 23.572, 23.629, 23.723 through 23.735, 23.865, 23.867, 23.901 through 23.1017, 23.1019(a)(1) and (2), 23.1019(a)(4) and (5), 23.1019(b), 23.1021 through 23.1203, 23.1303(a) through (d), 23.1305(a) through (u) and (w), 23.1323, 23.1325, 23.1327, 23.1329, 23.1335, 23.1337, 23.1351 through 23.1357, 23.1385 through 23.1401, 23.1441 through 23.1449, 23.1501 through 23.1521, 23.1524, 23.1525, 23.1527(b), and 23.1529 through 23.1589; Paragraph 25.831(d) of FAR 25 dated February 1, 1965, as amended by 25-1 through 25-43; FAR 36 dated December 1, 1969, as amended by 36-1 through 36-10; SFAR No. 27, Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes, effective February 1, 1974, as amended by SFAR's 27-1, 27-2, and 27-3; plus Special Conditions 23-93-CE-12 as amended by Amendment No. 1 dated June 25, 1980. (See NOTE 3.)

**X - Model 425** (cont'd)

## Certification Basis

Model 414A (S/N 414A0401 and up, Model 421C (S/N 421C0801 and up)

In addition to the above certification basis, compliance with FAR 36, dated December 1, 1969, as amended by 36-1 through 36-10 (414A only) and 36-1 through 36-4 (421C only) has been demonstrated.

Model 402B, S/N 402B0501 and up

Model 402C

Model 414, S/N 414-0451 and up

Model 414A

Model 421B, S/N 421B0501 and up

Model 421C

Model 425

Markings, placards and manuals are primarily in knots instead of m.p.h. as required by CAR 3, but permitted by FAR 23, Amendment 23-7.

Model 402B, S/N 402B1001 and up

Model 414, S/N 414-0801 and up

Findings of equivalent level of safety were made for CAR 3.757 and 3.778(a).

Model 402B, S/N 402B0801 and up

Model 402C

Model 414, S/N 414-0601 and up

Model 414A

Model 421B, S/N 421B0801 and up

Model 421C

Model 425

In addition to the above certification basis, compliance with ice protection has been demonstrated in accordance with FAR 23.1419 of Amendment 23-14 effective December 20, 1973, when ice protection equipment is installed in accordance with Cessna Drawing 5914105 for 425, 5114400 for all other models, Factory Kit (FK) No. 194, Pilot's Operating Handbook and/or FAA Approved Airplane Flight Manual. Aircraft which have been modified in compliance with Accessory Kit (AK) No. 421-106 are considered to be equivalent to those with Factory Kit (FK) No. 194.

Application for Type Certificate dated September 18, 1961. Type Certificate No. A7CE issued August 17, 1964, obtained by the manufacturer under delegation option procedures.

## Production Basis

Production Certificate No. 312 issued and Delegation Option Manufacturer No. CE-3 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations. Effective February 15, 1985, and on, Production Certificate No. 4 is applicable to all spares production. See NOTE 8 for specific effectivity of P.C. 4 on new airplane serials.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following item of equipment is required.

1. Stall warning indicator, Cessna dwg. 5018100 (401, 402, 411, 411A)
    - Stall warning indicator, Cessna dwg. 5118000 (421)
    - Stall warning indicator, Cessna dwg. 5618002 (414)
    - Stall warning indicator, Cessna dwg. 5218016 (401A, 402A, 401B, 402B0001 through 402B0300)
    - Stall warning indicator, Cessna dwg. 5118310 (421A)
    - Stall warning indicator, Cessna dwg. 5118402 (421B0001 through 421B0300)
    - Stall warning indicator, Cessna dwg. 5618021 (414-0351 and up, 421B0301 and up)
    - Stall warning indicator, Cessna dwg. 5218031 (402B0301 and up)
    - Stall warning indicator, Cessna dwg. 5118627 (421C)
    - Stall warning indicator, Cessna dwg. 5618041 (402C, 414A, 425)
- or Angle of Attack Indicator System, Cessna Dwg. 0800302, Model 402B, 402C, 414, 414A, 421B, 421C.

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 certificated empty weight and corresponding center of gravity location must include undrainable oil (not included in oil capacity) and unusable fuel as follows:

- (a) Fuel. 12 lb. (tip) at (+152.0) (401, 401A, 401B, 402, 402A, 402B, 411, 411A, 414, 421, 421A, 421B)  
 18 lb. (wing, standard 73 gal. at +164.0) (411, 411A, 421, 421A, 421B)  
 24 lb. (wing, optional 100 gal. at +164.0) (411, 411A, 421, 421A, 421B, 402A, 402B, 414)  
 6 lb. (wing, optional 63 gal. at +164.0) (402B0301 and up and 414-0351 and up)  
 44 lb. (wing, 7.4 gal. at +165.2) (402C, S/N 689, and 402C0201 and up; 414A, S/N 414A0401 and up; 421C)  
 68 lb. (wing, 11.4 gal. at +165.2) (414A, S/N 414A0001 through S/N 414A0200)  
 56 lb. (wing, 9.4 gal. at +165.0) (402C, S/N 402C0001 through 402C0200; 414A, S/N 414A0201 through 414A0400)  
 45.6 lb. (wing, 6.8 gal. at +166.2) (425)
- (b) If optional wing locker transfer tanks are installed 3.0 lb. (each 26 gal. tank) at (+176.0) (411, 411A, 421, 421A, 421B)  
 3.0 lb. (each 20 gal. tank) at (+175.0) (401, 401A, 401B, 402, 402A, 402B, 414)  
 2.0 lb. (each 28 gal. tank) at (+176.0) (421C0001 and up)
- (c) Oil - 0.0 lb.

NOTE 2. The placards specified in the FAA Approved Airplane Flight Manual must be displayed.

NOTE 3. Service information

The appropriate airplane service manual contains structural retirement lives, which may not be changed without FAA Engineering approval, for the following components:

	<u>Part Number</u>	<u>Hours</u>	<u>Model</u>
Windshield	5111604-1 & -2	13,200	414, 414A, 421A, 421B, 421C, 425
Windshield, heated	9910013-1	13,200	421, 421A (S/N 421A0001 through 421A0117)
Windshield, heated	9910071-1	13,200	414, 421A, 421B S/N 414-0001 through 414-0600, 421A0118 through 421B0800)
Windshield, heated	9910214-1 & -2	13,200	414, 414A, 421B, 421C (S/N 414-0601 and up, 421B0801 through 421C0800)
Windshield, heated	9910460-1 & -200	13,200	421C (S/N 421C0801 and up), 425
Upper cabin door latch pins	5111545-3	8,000	421 (S/N 421-0001 through 421-0079)
Upper cabin door latch pins	5111545-6	8,000	421 (S/N 421-0080 and up), 421A
Wing	5922125 not modified by SK425-48	10,200	425 (S/N -0002 thru -0176 except airplanes incorporating SK425-17)
Wing	5922125 not modified by SK425-48	9,300	425 (S/N -0177 and On and airplanes -0002 thru -0176 incorporating SK425-17)
Wing	5922125 modified by SK425-48	30,000	425
Wing carry-thru	5911004, 5111225	30,000	425

## NOTE 3. (cont'd.)

For Model 425 aircraft that have exceeded the structural retirement life prior to the availability of Cessna Service Kit SK425-48, the service kit is to be installed according to the following schedule:

- A. For airplanes 425-0177 and on, and airplanes 425-0002 through 425-0176 incorporating SK425-17:

Exceeding 12,500 hours, accomplish SK425-48 within 100 hours or 12 months after SK 425-48 was issued, whichever comes first.

Exceeding 9,300 hours but less than 12,500 hours, accomplish SK425-48 within 400 hours or 24 months after SK425-48 was issued whichever comes first.

Between 8,900 and 9,300 hours when SK425-48 was issued, accomplish within 400 hours of operation. For airplanes with less than 8,900 hours when SK425-48 was issued, accomplish at 9,300 hours.

- B. For airplanes -0002 through -0176, except airplanes incorporating SK425-17:

Exceeding 12,500 hours, accomplish SK425-48 within 100 hours or 12 months after SK425-48 was issued whichever comes first.

Exceeding 10,200 hours but less than 12,500 hours, accomplish SK425-48 within 400 hours or 24 months after SK425-48 was issued whichever comes first.

Between 9,800 and 10,200 hours when SK425-48 was issued, accomplish within 400 hours of operation. For airplanes with less than 9,800 hours when SK425-48 was issued, accomplish 10,200 hours.

Model 425 Special Conditions 23-93-CE-12, required, in part, that Cessna establish mandatory inspections of the Horizontal Tail Assembly in order to maintain continued structural integrity. Therefore, inspections are required for the horizontal stabilizer, elevators, elevator tab and tab actuator system. In order to comply with these requirements, airplanes must be inspected in accordance with inspection Item Codes A273002, A273101, A273102, B273109 and A551001 as contained in Model 425 Maintenance Manual, Part Number D2535-3-13, Revision 3 (or later revision). These inspection criteria are contained in Chapter 5, Subsection 5-10-01, and are applicable to Zones 331 and 332. All approved airplane inspection programs must include these mandatory inspections.

- NOTE 4. Model 421, Serial Nos. 421-0001 and up, approved for 6840 lb. takeoff weight with C.G. range as follows when appropriate airplane flight manual, pilot's checklist, weight and balance form, and other documents are provided as specified in Cessna Service Kit SK421-12.

C.G. Range (Landing Gear Extended)	(+152.1) to (+155.5) at 6840 lb.
	(+155.7) at 6500 lb.
	(+144.3) to (+155.7) at 5500 lb.

Straight line variation between points given

- NOTE 5. McCauley propellers with 3AF32C87 and 3AF32C504 hubs may be interchanged in any combination. This also applies to propellers with 3AF32C93 and 3AF32C505m hubs; 3AF34C92 and 3AF37C516 hubs; 3AF34C74 and 3AF37C510 hubs.

- NOTE 6. Model 425 aircraft in compliance with Cessna Drawing 5700018 are eligible for certification in The Netherlands.

- NOTE 7. Model 425 S/N 425-0001 through 425-0176 (Corsair) are eligible for the maximum weights and C.G. range applicable to S/N 425-0177 and up (Conquest I), when modified in accordance with Cessna Service Kit SK425-17, and will be renamed Conquest I.

- NOTE 8. Production Certificate No. 4 effective at Serials 402C1005 and on, 414A1208 and on, 421C1801 and on, and 425-0228 and on.

.....END.....