

SPEED	KIAS	KCAS
Maximum Flaps Extended Speed (V _{FE}) - Do not exceed this speed with flaps extended.	112	109

2.5 AIRSPEED INDICATOR MARKINGS

MARKING	IAS
Red Radial Line (Never Exceed)	197 KTS
Yellow Arc (Caution Range - Smooth Air Only)	154 KTS to 197 KTS
Green Arc (Normal Operating Range)	62 KTS to 154 KTS
White Arc (Flap Down)	58 KTS to 112 KTS

2.7 POWER PLANT LIMITATIONS

2 BLADE PROPELLER

(a) Number of Engines	1
(b) Engine Manufacturer	Lycoming
(c) Engine Model No.	IO-540-K1G5

(d) Engine Operating Limits	Max. Cont. Power	T.O. Power- 5 Min. Limit
(1) Maximum Horsepower	294	300
(2) Maximum Engine Speed (RPM)	2600	2700
(3) Maximum Oil Temperature (°F)	245	245

(e) Oil Pressure	
Minimum (red line)	25 PSI
Maximum (red line)	100 PSI

(f) Fuel Flow/Pressure	
Maximum (red line)	35 gal/hr; 14 PSI
(g) Fuel (minimum grade)	100 or 100LL Aviation Grade

(h) Number of Propellers	1
(i) Propeller Manufacturer	Hartzell

(j) Propeller Hub and Blade Model	HC-C2Y(KR)-1()F F8475D-4
(k) Propeller Diameter (inches)	
Minimum	78.5
Maximum	80
(l) Blade Angle Limits	
Low Pitch Stop	13.5° + 0.2°
High Pitch Stop	34° + 1°

3 BLADE PROPELLER

(a) Number of Engines	1
(b) Engine Manufacturer	Lycoming
(c) Engine Model No.	IO-540-K1G5
(d) Engine Operating Limits	
(1) Maximum Horsepower	300
(2) Maximum Rotation Speed (RPM)	2700
(3) Maximum Oil Temperature (°F)	245
(e) Oil Pressure	
Minimum (red line)	25 PSI
Maximum (red line)	100 PSI
(f) Fuel Flow/Pressure	
Maximum (red line)	35 gal/hr; 14 PSI
(g) Fuel (minimum grade)	100 Green or 100LL Blue Aviation Grade
(h) Number of Propellers	1
(i) Propeller Manufacturer	Hartzell
(j) Propeller Hub and Blade Model	HC-C3YR-1()F F7663R-0
(k) Propeller Diameter (inches)	
Minimum	76
Maximum	78
(l) Blade Angle Limits	
Low Pitch Stop	12.4° + 0.2°
High Pitch Stop	32.0° + 1.0°

2.9 POWER PLANT INSTRUMENT MARKINGS

- (a) Tachometer
 - (1) 2 Blade Propeller
 - Green Arc (Normal Operating Range) 500 to 2600 RPM
 - Yellow Arc (5 Minute Limit) 2600 to 2700 RPM
 - Red Line (Takeoff Power) 2700 RPM
 - (2) 3 Blade Propeller
 - Green Arc (Normal Operating Range) 500 to 2700 RPM
 - Red Line 2700 RPM
- (b) Oil Temperature
 - Green Arc (Normal Operating Range) 75° to 245° F
 - Red Line (Maximum) 245° F
- (c) Oil Pressure
 - Green Arc (Normal Operating Range) 60 PSI to 90 PSI
 - Yellow Arc (Caution Range) (Idle) 25 PSI to 60 PSI
 - Yellow Arc (Caution Range)
(Start and Warm Up) 90 PSI to 100 PSI
 - Red Line (Minimum) 25 PSI
 - Red Line (Maximum) 100 PSI
- (d) Fuel Flow/Pressure
 - Green Arc (Normal Operating Range) 0 gal/hr. to 34.9 gal/hr.
 - Red Line (Maximum) 35 gal/hr.; 14 PSI

2.11 WEIGHT LIMITS

- (a) Maximum Takeoff Weight 3600 LBS.
- (b) Maximum Ramp Weight 3615 LBS.
- (c) Maximum Baggage (100 lbs.
each compartment) 200 LBS.

NOTE

Refer to Section 5 (Performance) for
maximum weight as limited by performance.

2.13 CENTER OF GRAVITY LIMITS

Weight Pounds	Forward Limit Inches Aft of Datum	Rearward Limit Inches Aft of Datum
3600	90.0	95.0
3200	83.5	95.0
2400 (and less)	78.0	95.0

NOTES

Straight line variation between points given.

The datum used is 78.4 inches ahead of the wing leading edge at the intersection of the untapered and inboard tapered section.

It is the responsibility of the airplane owner and the pilot to insure that the airplane is properly loaded. See Section 6 (Weight and Balance) for proper loading instructions.

2.15 MANEUVER LIMITS

No acrobatic maneuvers including spins approved.

2.17 FLIGHT LOAD FACTORS

- | | |
|---|--------------------------------|
| (a) Positive Load Factor (Maximum) | 3.8 G |
| (b) Negative Load Factor (Maximum) | No inverted maneuvers approved |
| (c) Positive Load Factor - Flaps Down (Maximum) | 2.0 G |
| (d) Negative Load Factor - Flaps Down (Maximum) | No inverted maneuvers approved |

2.19 TYPES OF OPERATIONS

The airplane is approved for the following operations when equipped in accordance with FAR 91 or FAR 135.

- (a) Day V.F.R.
- (b) Night V.F.R.
- (c) Day I.F.R.
- (d) Night I.F.R.
- (e) Non icing

2.21 FUEL LIMITATIONS

- (a) Total Capacity 107 U.S. GAL.
- (b) Unusable Fuel 5 U.S. GAL.
The unusable fuel for this airplane has been determined as 2.5 gallons in each wing in critical flight attitudes (2.5 gallons is the total per side, each side having two interconnected tanks).
- (c) Usable Fuel 102 U.S. GAL.
The usable fuel in this airplane has been determined as 51 gallons in each wing (51 gallons is the total per side, each side having two interconnected tanks).

2.23 NOISE LEVEL

The corrected noise level of this aircraft is 76.7d B(A) for two bladed propeller installations and 77.5d B(A) for three bladed propeller installations.

No determination has been made by the Federal Aviation Administration that the noise levels of this airplane are or should be acceptable or unacceptable for operation at, into, or out of, any airport.

The above statement notwithstanding the noise level stated above has been verified by and approved by the Federal Aviation Administration in noise level test flights conducted in accordance with F.A.R. 35, Noise Standards - Aircraft Type and Airworthiness Certification. This aircraft model is in compliance with all F.A.R. 36 noise standards applicable to this type.