

MARKING	KIAS VALUE OR RANGE	SIGNIFICANCE
White Arc	58 - 115	Full Flap Operating Range. Lower limit is maximum weight $V_{SO}$ in landing configuration. Upper limit is maximum speed permissible with flaps extended.
Green Arc	73 - 167	Normal Operating Range. Lower limit is maximum weight $V_S$ at most forward C.G. with flaps retracted. Upper limit is maximum structural cruising speed.
Yellow Arc	167 - 200	Operations must be conducted with caution and only in smooth air.
Red Line	200	Maximum speed for all operations.

Figure 2-2. Airspeed Indicator Markings

## POWER PLANT LIMITATIONS

Engine Manufacturer: Teledyne Continental.

Engine Model Number: TSIO-520-P.

Engine Operating Limits for Takeoff and Continuous Operations:

Maximum Power, 5 Minutes - Takeoff: 310 BHP.

Continuous: 285 BHP

Maximum Engine Speed, 5 Minutes - Takeoff: 2700 RPM.

Continuous: 2600 RPM.

Maximum Manifold Pressure,

5 Minutes - Takeoff: 36.5 inches Hg. (from sea level to 17,000 feet).

Continuous: 35.5 inches Hg from sea level to 17,000 feet.

33.5 inches Hg at 19,000 feet.

31.5 inches Hg at 21,000 feet.

29.5 inches Hg at 23,000 feet.

Maximum Cylinder Head Temperature: 460°F (238°C).

Maximum Oil Temperature: 240°F (116°C).

Oil Pressure, Minimum: 10 psi.

Maximum: 100 psi.

Fuel Pressure, Minimum: 3.0 psi.

Maximum: 19.5 psi (186 lbs/hr).

## STALL SPEEDS

CONDITIONS:

Power Off

Gear Up or Down

NOTES:

- Maximum altitude loss during a stall recovery may be as much as 300 feet.
- KIAS values are approximate.

### MOST REARWARD CENTER OF GRAVITY

WEIGHT LBS	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
4000	UP	67	67	72	72	80	80	95	95
	10°	63	63	68	68	75	75	89	89
	20°	59	60	63	64	70	71	83	85
	30°	54	58	58	62	64	69	76	82

### MOST FORWARD CENTER OF GRAVITY

WEIGHT LBS	FLAP DEFLECTION	ANGLE OF BANK							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
4000	UP	73	73	78	78	87	87	103	103
	10°	68	68	73	73	81	81	96	96
	20°	63	64	68	69	75	76	89	91
	30°	58	61	62	66	69	73	82	86

Figure 5-3. Stall Speeds

**AIRSPEED INDICATOR MARKINGS**

MARKING	KIAS VALUE OR RANGE	EXPLANATION
White Arc	61 - 115	Full Flap Operating Range. Lower limit is maximum weight V <sub>so</sub> in landing configuration. Upper limit is maximum speed permissible with flaps extended.
Green Arc	76 - 167	Normal Operating Range. Lower limit is maximum weight V <sub>s</sub> at most forward C.G. with flaps retracted. Upper limit is maximum operating speed.
Red Line	167	Maximum speed for all operations.

### STALL SPEEDS

NOTES:

- Altitude loss during a stall recovery may be as much as 600 feet from a wings level stall and even greater from a turning stall.
- KIAS values are approximate.

#### MOST REARWARD CENTER OF GRAVITY

Conditions: FLT IDLE  
Gear Up or Down

Weight Lbs.	Flap Deflection	Angle of Bank							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
4000	UP	74	69	80	74	88	82	105	98
	10°	69	65	74	70	82	77	98	92
	20°	63	61	68	66	75	73	89	86
	30°	59	58	63	62	70	69	83	82

#### MOST FORWARD CENTER OF GRAVITY

Conditions: FLT IDLE  
Gear Up or Down

Weight Lbs.	Flap Deflection	Angle of Bank							
		0°		30°		45°		60°	
		KIAS	KCAS	KIAS	KCAS	KIAS	KCAS	KIAS	KCAS
4000	UP	76	71	84	76	80	84	107	100
	10°	70	66	75	71	83	78	99	93
	20°	65	63	70	68	77	75	92	89
	30°	61	60	66	64	73	71	86	85