

KIS Technical Specifications

(Preliminary)

	Limbach 2000	Continental O-200	Lycoming O-235
WEIGHTS (all in lbs)			
Empty Weight (typ).....	680	750	788
Fuel - 20/20/25 US Gal.....	120	120	150
Max. Gross Wt.....	1200	1300	1400
Useful Load (typ).....	520	550	612
Pilot / Passenger - max.....	400	400	400
Baggage - max.....	60	60	60

POWER SPECIFICATIONS

Eng. Weight with access/oil.....	180	230	275
Displacement.....	1994cc	200ci	235ci
Power at TO..(hp).....	80	100	118
Propeller.....	56x44	TBD	TBD
Power Loading(typ solo).....#/hp....	12.5	11.0	10.5

DIMENSIONS

Length O.A.....		22.0 ft	
Fuselage Frontal Area.....		9.0 sq ft	
Wing Span.....		23 ft	
Wing Area.....		88 sq.ft	
Chord.....		3.83 ft	
Wing Aspect Ratio.....		6	
Location C/4.....		Sta 64.7	
Spar Location 30% MAC.....		Sta. 66.55	
Wing L.E.....		Sta. 53.25	
Cowl parting joggle.....		Sta. 31.94	
Airfoil.....	NACA 63(2)-215		
Dihedral (Per panel).....		2.5 degrees	
Tip washout.....		0 degree.	
Wing Loading (max)....	13.6/14.8/15.9 psf.		
Flap Type.....		Plain Flap.	
Length.....		65.0 in	
Flap Chord.....	12.5 in. = 28%c		
Aileron Length.....		36.25 in	
Aileron Chord.....		12.5 in	
Horizontal Tail Span.....		7.33 ft	
Hor Tail Chord.....		2.08 ft	
Hor Stab Mean Chord.....		1.33 ft	
Elevator Chord.....		75 ft	
or Tail Area.....		15.2 sq ft	
Hor Aspect Ratio.....		3.5	
Location of Hor Tail C/4.....		Sta. 197	

Hor Tail Thickness.....	12%
Vertical Tail Ht.....	4.09 ft
Vert Tail Mean Chord.....	83 ft
Dorsal Fin.....	33 by 2.5 ft
Location of Vert Tail C/4.....	Sta 190
Fin Thickness.....	10%
Equiv. Flat Plate Drag (typ.).....	2.94sf
Main Tires.....	Goodyear 5:00 x 5 (13.5 in. dia.)
Nose Tire.....	Lamb 5:00 X 5(11.5 in.dia.)

CONTROL MOVEMENTS

Elevator	+25	-16
Ailerons	+12	-12
Rudder	L=25,R=30	
Flaps	0/12/28	

PERFORMANCE *

	Limb.	0-200	0-235
	Tri-	Tri-	Tail-
	gear	gear	dragger
Maximum Speed - SSLC.....	150	170	190mph
Cruise Speed -SSLC (75% BSBP,SSLC)...	135	155	170mph
Stall Speed (Clean).....	55	57	58mph
Stall Speed (Landing Config).....	50	52	53mph
Max Rate of Climb -Max Gross Wt.....	650	900	1100fpm
Rate of Climb - SOLO (1000#).....	900	1300	1600fpm
Range @ cruise, SSLC (45 min .res.).....	550	500	575sm
Service Ceiling 1000#(100 fpm).....	1400	TBD	TBD

LIMITATIONS

(Limit Load Factor (pos).....	4.4G
Design Limit Load Factor (neg).....	2.2G
Manoeuvre Speed - V.....	130mph
V-f (flap Speed).....	110mph
V-ne (never exceed).....	216mph

PLACARD IAS LIMITS **

Green Arc....	55/57/58 to 156mph
Yellow Arc...	156 to 216mph
White Arc.....	50/52/53 to 110 mph
Red line.....	216mph

Notes:

*** Performance statistics are estimates based on flight tests of the tri-gear Limbach prototype aircraft (with no wheel fairings) and computer simulations of the Continental tri-Gear aeroplane (faired wheels) and the Lycoming tail-dragger faired aeroplane (faired wheels).**

** Placard lower limits are subject to flight-test IAS of specific aircraft.

