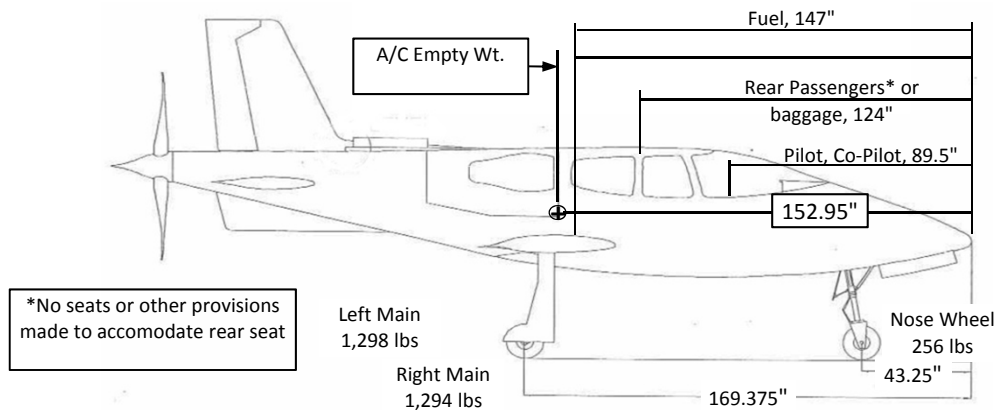


CIRRUS VK-30, N330RC - WEIGHT & BALANCE CALC. Rev. 2

8/27/2013



Item Desc.	Weight (lbs)	Station (inches)	Moment (in-lbs)
Initial A/C Empty Wt.			
Left Main	1,298.00	169.38	219,849
Right Main	1,294.00	169.38	219,171
Nose Wheel	256.00	43.25	11,072
Initial Empty Wt.	2,848.00		
Initial Moment			450,092
Initial Empty Wt. C.G.		158.04	
Changes after initial weighing			
Add Reserve Bat.	35.00	18.00	630
Redo Rudder Counterweight	-1.75	270.00	-473
Remove Extra tail bulkhead	-1.75	275.00	-481
Remove Pitch Servo	-3.50	188.00	-658
Reinstall Ptich Servo	3.40	57.00	194
Remove Pitch Wires	-0.30	110.00	-33
Redo Shaft Seal	-0.50	206.00	-103
Heat Sheilding	2.00	180.00	360
Coupling Cooling Shroud	1.50	190.00	285
Permenent Ballast (Nose)	20.00	2.00	40
Removable Ballast 1 (Nose)	9.30	3.50	33
Removable Ballast 2 (Nose)	31.00	4.50	140
Empty Wt.	2,942		
Moment			450,025
Empty Wt. C.G.		152.94	

Max. Gross Wt. 3,600 lbs* . *Per Original Kit Installation
 Max. Gross Wt. 3,800 lbs** **Per New Wing Installation structural upgrade.
 Allowabe Flt. C.G. Limits
 Foreward Limit 143.63"
 Aft. Limit 149.51"

Ballast 1, if used = 9.3 lbs; Ballast 2, if used = 31 lbs. Comps based on 60# of ballast.

Minimum Weight Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot wt. = 165 lbs

Min. fuel requirement, 10 gal.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot + Balest in Pasenger Seat	165	89.5	14,768
Fuel, 10 gal.	60	147.0	8,820
Total (Min., w/out add'l Balast)	3,167	149.5	473,613

Max. Weight Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot only, 200 lbs

Baggage at 124" = 140 lbs

Max. fuel at 87.5 gal.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot	200	89.5	17,900
Baggage @ 124"	140	124.0	17,360
Baggage @ 147"	0	147.0	0
Fuel, 86.3 gal.	518	147.0	76,146
Total (Min., w/out add'l Balast)	3,800	147.7	561,431

Min. Weight Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot only, 200 lbs

Baggage at 124" = 140 lbs

Min. fuel at 10 gal.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot	200	89.5	17,900
Baggage @ 124"	140	124.0	17,360
Fuel, 10 gal.	60	147.0	8,820
Total (Min.,	3,342	147.8	494,105

~~Min. Weight Flight Condition:~~

~~**CRITICAL FLIGHT CONDITION**~~

~~Min Ballast~~

~~**Pilot only, 200 lbs**~~

~~Baggage at 124" = 140 lbs~~

~~Min. fuel at 10 gal.~~

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot	200	89.5	17,900
Baggage @ 124"	140	124.0	17,360
Fuel, 10 gal.	60	147.0	8,820
Total (Min.,	3,342	147.8	494,105

Max. Wt. Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot & Co-Pilot at 170 lbs ea.

Baggage at 124" = 100 lbs

Max. Fuel, 70.8 gal.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot, Co-Pilot	340	89.5	30,430
Baggage @ 124"	100	124.0	12,400
Fuel, 69.7 gal.	418	147.0	61,446
Total (Min.,	3,800	145.9	554,301

Min. Wt. Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot & Co-Pilot at 170 lbs ea.

Baggage at 124" = 100 lbs

Min. Fuel, 10 gal.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot, Co-Pilot	340	89.5	30,430
Baggage @ 124"	100	124.0	12,400
Fuel, 10 gal.	60	147.0	8,820
Total (Min.,	3,442	145.7	501,675

Maximum Weight Flight Condition:

CRITICAL FLIGHT CONDITION

Pilot + P.S. balast 270 lbs.

Max. Fuel, 98 gal. 588 lbs.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot & Passenger	270	89.5	24129
Max. Fuel Allowed (98Gal.)	588	147.0	86436
Total (Max. flt. Wt.)	3800	147.5	560590

Maximum Weight Flight Condition:

FLIGHT CONDITION

Pilot + Passenger 340 lbs.

Baggage @ 124" M.A., 50 lbs.

Max. Fuel, 79 gal. 588 lbs.

	Weight (lbs)	Station (inches)	Moment (in-lbs)
A/C Empty	2,942	152.9	450,025
Pilot & Passenger	340.0	89.5	30,430.0
Baggage @ 124"	50.0	124.0	6,200.0
Red. Fuel+ 2 passengers, baggage	467.6	147.0	68,737.2
Total	3,800.0	146.2	555,392.3

