

Sport Copter Vortex S/N: ~~076~~ N#: ~~348 PD~~

Empty CG: 66-72 With Pilot: ~~55-62~~ **011 N425RD**

Weight and Balance - Weighed: ~~12-20-17~~ **3-27-19**

Standard instruments, Rotax 582 Engine, 10lb permanent balast at nose (12" arm), 1.5 gal fuel

Datum is most forward point of Vortex body - arms are nosewheel axle & main wheel axle

W&B Empty w/o pilot, 1.5 gal fuel

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	186.6	74	13808.4	
Left Main	187	74	13838	
Nose	44.4	17	754.8	
Total	418		28401.2	67.94545

W&B with **190** lb pilot

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	224.8	74	16635.2	
Left Main	224.8	74	16635.2	
Nose	143	17	2431	
Total	592.6		35701.4	60.24536

W&B w/o pilot, w/ 4 qts oil at rudder pedal (weight range example)

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	186.8	74	13823.2	
Left Main	186.8	74	13823.2	
Nose	38.2	17	649.4	
Total	411.8		28295.8	68.71248

W&B w/o pilot, w/ 4 qts oil at Horizontal Spar (weight range example)

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	190.2	74	14074.8	
Left Main	190.2	74	14074.8	
Nose	52.2	17	887.4	
Total	432.6		29037	67.12205

W&B with **190** lb pilot, w/ 4 qts oil at rudder pedal (weight range example)

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	223.8	74	16561.2	
Left Main	223.8	74	16561.2	
Nose	152	17	2584	
Total	599.6		35706.4	59.55037

W&B with **190** lb pilot, w/ 4 qts oil at Horizontal Spar (weight range example)

	Aircraft Weight (lbs)	Arm (inches)	Moment	CG
Right Main	233.2	74	17256.8	
Left Main	233.2	74	17256.8	
Nose	135.4	17	2301.8	
Total	601.8		36815.4	61.1 61.17547