

WEIGHT AND BALANCE SUMMARY

N324RS

SERIAL NUMBER: 10067

MODEL: R44 Raven II

This document must be included in the aircraft's Pilot's Operating Handbook at the end of Section 6.

Changes to the installed equipment are recorded in the Weight and Balance Record provided in Section 6 of the Pilot's Operating Handbook. Use the basic empty weight and CG given in the Weight and Balance Record when calculating gross weight and CG.

BASIC EMPTY WEIGHT (lb)	LONGITUDINAL		LATERAL	
	ARM (in)	MOMENT (in-lb)	ARM (in)	MOMENT (in-lb)
1565.2	105.2	164659.0	0.05	78.3
Mechanic: <u>[REDACTED]</u> Date: <u>06 July 2015</u> Inspector: <u>[REDACTED]</u> Date: <u>06 July 2015</u> This Weight and Balance was obtained by actual weighing.				

EQUIPMENT LIST

Component Name	Part No.	Weight Ref. (lb)
Compass, Vert. Card	PAI-700	0.8
VHF Transceiver	KY196A	2.8
Transponder - Mode S	GTX330	4.2
Cooling Fan	TB1-1.5	0.6
Blind Encoder	B240-2	0.6
Audio Cntrl NAT	AA12-022	1.0
GPS GARMIN 430	430	6.6
Altimeter (in Hg)	A613-1	1.1
Vertical Speed	7000	1.0
Clock-Analog	MD-90-R	0.3
Attitude Horizon w/inclnmtr	B823-3/-6	2.5
Directional Gyro	B823-2/-5	2.7
GPS Indicator	GF106A	1.4
COM Ant. (Aft) COMANT	CI 121	0.5
NAV/VOR Ant.	CI 259E	0.4
Transponder Ant. (-3)	KA60	0.2
COM/GPS Ant. (Fwd)	CI 2480-201	0.6
Shoes (8)	A667-7	1.4
Shoes (2)	A667-8	0.3
Strut Fairings (4)	C082-1	4.4
9 Hole Console	B050	2.7
Doors FWD (2)	C026	15.0
AFT (2)	C026	14.0
Oil Filter Inst'l	C009-13	2.3
Rem Cyclic Grip	A756-21	1.0
Rem Collective Stick	C758-2	1.2
Rem Pedals (2)	A755-3 & -4	0.7
Fire Ext. W/Pocket FWD	B381-1	1.6
Bose Interface (FWD) (2)	C832-4	0.06
Bose Interface (AFT) (2)	C832-5	0.04
Hydraulic Sys. Inst'l	C022-2	16.0
Shield - Muffler, Tailpipe	D318-1	0.55
Battery-Fwd Inst'l (28V)	B237-4	28.0
Battery Box	D689-5	0.9
Battery Relay	26.57.01	0.9
Air Conditioner	D776-1	33.0



Sevier County Choppers

1255 Airport Rd.

Sevierville TN, 37862

Phone: (865) 453-5867 Fax: (865) 365-1206

R44 WEIGHT AND BALANCE RECORD SHEET

(Weighing and Computations complied with IAW R44 M/M Chapter 1, Section 1.230)

Make/Model: R44 Raven II Reg #: N324RS S/N: 10067 W/O#: 1041
A/C T.T: 2127.4 Eng. T.T: 2127.4 Date: 07/06/2015

- **Longitudinal C.G. Computation:**

Height Difference: Measured Dimension per R44 M/M Section 1.231.

Height Difference 28.5 Inches (No Ballast)

Longitudinal C.G.: $114.34 - [0.32 \times (\text{Height Difference})] = 114.34 - (0.32 \times \underline{28.5}) = \underline{105.2}$ Inches

Longitudinal CG With Full Fuel and 150 Lbs Pilot:

$$\frac{[(\text{C.G. from Above}) \times (\text{Uncorrected Empty Weight})] + 38840}{(\text{Uncorrected Empty Weight}) + 451.2} = \frac{105.2(1558) + 38840}{(1558) + 451.2} = \underline{100.9}$$

*No Nose Ballast Required if C.G. is smaller than 102.5 with Full Fuel and 150 Lbs Pilot.

- **Record Empty Weight**

Right Scale Reading	<u>780</u>	Lb
Left Scale Reading	+ <u>778</u>	Lb
Tare	- <u>0</u>	Lb
Uncorrected Weight	= <u>1558</u>	Lb

Empty Weight and Longitudinal C.G. Correction for drained Unusable Fuel

Item	Weight	C.G. Arm	Moment
Ship as Weighed	<u>1558</u>	<u>105.2</u>	<u>163901.6</u>
Drained Unusable Fuel	+ <u>7.2</u>	<u>96.0</u>	<u>691</u>
Total	= <u>1565.2</u>	<u>105.2</u>	<u>164592.6</u>

- **Lateral C.G. Computation:**

Lat C.G. Arm = $\frac{(\text{Right Scale} - \text{Left Scale})}{(\text{Right Scale} + \text{Left Scale})} \times 41.2 = \left(\frac{780 - 778}{780 + 778} \right) \times 41.2 = \underline{0.05}$ in.

BASIC EMPTY WEIGHT	LONGITUDINAL C.G.	LATERAL C.G.	LONGITUDINAL MOMENT	LATERAL MOMENT
<u>1565.2</u>	<u>105.2</u>	<u>0.05</u>	<u>164659.0</u>	<u>78.3</u>
LBS	IN.	IN.	IN-LBS	IN-LBS

- The Above Weight and Balance Computation was obtained by actual weighing.
- Helicopter Basic Empty Weight includes Unusable Fuel and Full Oil

Inspector's Signature:

[Redacted Signature]

Sevier County Choppers CRS V68R343M