

# Weight and Balance Worksheet

*Input information only in the yellow boxes!!!*

Date **5-Dec-03**

Dragonfly **N55UP**

	Scale	Tare	Net Weight	Arm	Moment
Left Main	340.00		340.00	49.00	16660.00
Right Main	340.00		340.00	49.00	16660.00
Tail Wheel	19.00		19.00	223.00	4237.00
			0.00		0.00
<b>Total Weight</b>			699.00		37557.00

	Weight	Arm	Moment
<b>AC Empty Weight</b>	699.00		37557.00

<b>Additions</b>					
Pilot			300.00	79.00	23700.00
Passenger				79.00	0.00
Fwd Hatch			0.00	27.00	0.00
Rear Bags			0.00	96.00	0.00
Corvair Engine				6.00	0.00
Filler and Paint				60.00	0.00
Instrument Panel				45.00	0.00
Tail Toolkit & Batt			10.00	195.00	1950.00
<b>Total Additions</b>			310.00		25650.00

<b>Subtractions</b>					
				8.00	0.00
			0.00	51.70	0.00
			0.00	45.00	0.00
<b>Total Subtractions</b>			0.00		0.00

T/O Fuel	Gallons				
Main Tank	15.0		93.00	53.00	4929.00
Aft Tank	0.0		0.00	96.00	0.00
Header Tank	3.5		21.70	45.00	976.50

Landing Fuel	Gallons				
Main Tank	1.0		6.20	53.00	328.60
Aft Tank	0.0		0.00	96.00	0.00
Header Tank	1.0		6.20	40.00	248.00

	Total Weight	CG	Moment
<b>Take-Off Total</b>	<b>1123.70</b>	<b>61.50</b>	<b>69112.50</b>
<b>Landing Total</b>	<b>1021.40</b>	<b>62.45</b>	<b>63783.60</b>

<b>Maximum Forward CG Limit</b>	<b>58.70</b>
<b>Maximum Aft CG Limit</b>	<b>63.50</b>



***Input information only in the yellow boxes!!!***

Date

Dragonfly Tail # RYAN

	Scale	Tare	Net Weight	Arm
Left Main	340.00		340.00	51.70
Right Main	342.00		342.00	51.70
Tail Wheel	19.00		19.00	221.00
Nose Wheel			0.00	
<b>Total Weight</b>			701.00	

	Weight	Arm
<b>AC Empty Weight</b>	701.00	

<b>Additions</b>			
Pilot			76.00
Passenger			76.00
Front Bags			27.00
Rear Bags			92.00
<b>Total Additions</b>		0.00	

<b>Subtractions</b>			
<b>Total Subtractions</b>			0.00

<b>T/O Fuel</b>	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

<b>Landing Fuel</b>	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

	Total Weight	CG
<b>Take-Off Total</b>	<b>701.00</b>	<b>56.29</b>
<b>Landing Total</b>	<b>701.00</b>	<b>56.29</b>

<b>Maximum Forward CG</b>		<b>58.70</b>
<b>Maximum Aft CG</b>		<b>63.50</b>

Computed By

Sign



<b>Moment</b>
17578.00
17681.40
4199.00
0.00
39458.40

<b>Moment</b>
39458.40

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

0.00
0.00
0.00
0.00

0.00
0.00
0.00

0.00
0.00
0.00

<b>Moment</b>
<b>39458.40</b>
<b>39458.40</b>

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**Input information only in the yellow boxes!!!**

Date

Dragonfly Tail #

	Scale	Tare	Net Weight	Arm
Left Main	358.00		358.00	51.45
Right Main	360.00		360.00	51.45
Tail Wheel	18.00		18.00	221.00
Nose Wheel			0.00	
<b>Total Weight</b>			736.00	

	Weight	Arm
<b>AC Empty Weight</b>	736.00	

<b>Additions</b>			
Pilot			76.00
Passenger			76.00
Front Bags			27.00
Rear Bags			92.00
<b>Total Additions</b>		0.00	

<b>Subtractions</b>			
<b>Total Subtractions</b>		0.00	

T/O Fuel	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

Landing Fuel	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

	Total Weight	CG
<b>Take-Off Total</b>	<b>736.00</b>	<b>55.60</b>
<b>Landing Total</b>	<b>736.00</b>	<b>55.60</b>

<b>Maximum Forward CG</b>	<b>58.70</b>
<b>Maximum Aft CG</b>	<b>63.50</b>

Computed By

Sig





<b>Moment</b>
18419.10
18522.00
3978.00
0.00
40919.10

<b>Moment</b>
40919.10

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

0.00
0.00
0.00
0.00

0.00
0.00
0.00

0.00
0.00
0.00

<b>Moment</b>
<b>40919.10</b>
<b>40919.10</b>

nature
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*Input information only in the yellow b*

Date

Dragonfly Tail #

	Scale	Tare	Net Weight
Left Main	317.00		317.00
Right Main	317.00		317.00
Tail Wheel	19.00		19.00
Nose Wheel			0.00
<b>Total Weight</b>			653.00

	Weight
<b>AC Empty Weight</b>	653.00

<b>Additions</b>		
Pilot		
Passenger		
Front Bags		
Rear Bags		
Battery		10.00
Hirth		130.00
<b>Total Additions</b>		140.00

<b>Subtractions</b>		
VW		190.00
<b>Total Subtractions</b>		190.00

<b>T/O Fuel</b>	Gallons		
Main Tank			0.00
Aft Tank			0.00
			0.00
Header Tank			0.00

<b>Landing Fuel</b>	Gallons		
Main Tank			0.00
Aft Tank			0.00
			0.00
Header Tank			0.00

	Total Weight
<b>Take-Off Total</b>	<b>603.00</b>
<b>Landing Total</b>	<b>603.00</b>

<b>Maximum Forward CG</b>
<b>Maximum Aft CG</b>

Computed By

**axes!!!**

**Bart**

Arm	Moment
51.75	16404.75
51.75	16404.75
221.56	4209.69
	0.00
	37019.19

Arm	Moment
	37019.19

76.00	0.00
76.00	0.00
27.00	0.00
92.00	0.00
22.75	227.50
-10.00	-1300.00
	0.00
	0.00
	-1072.50

12.00	2280.00
	0.00
	0.00
	2280.00

65.00	0.00
96.00	0.00
25.00	0.00
45.00	0.00

65.00	0.00
96.00	0.00
25.00	0.00
45.00	0.00

CG	Moment
55.83	33666.69
55.83	33666.69

58.70
63.50

Signature

# Weight and Balance Worksheet

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Date

Dragonfly Tail # N340TD

	Scale	Tare	Net Weight	Arm
Left Main	340.00		340.00	51.70
Right Main	345.00		345.00	51.70
Tail Wheel	21.00		21.00	221.00
Nose Wheel			0.00	
<b>Total Weight</b>			706.00	

	Weight	Arm
<b>AC Empty Weight</b>	706.00	

Additions			
Pilot			76.00
Passenger			76.00
Front Bags			27.00
Rear Bags			92.00
			8.00
			67.00
			18.00
<b>Total Additions</b>		0.00	

Subtractions			
			221.00
			51.70
			45.00
<b>Total Subtractions</b>		0.00	

T/O Fuel	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

Landing Fuel	Gallons			
Main Tank			0.00	65.00
Aft Tank			0.00	96.00
Header Tank			0.00	45.00

	Total Weight	CG
<b>Take-Off Total</b>	<b>706.00</b>	<b>56.74</b>
<b>Landing Total</b>	<b>706.00</b>	<b>56.74</b>

<b>Maximum Forward CG</b>	<b>58.70</b>
<b>Maximum Aft CG</b>	<b>63.50</b>

Computed By

Signature

<b>Moment</b>
17578.00
17836.50
4641.00
0.00
40055.50

<b>Moment</b>
40055.50

0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00
0.00

0.00
0.00
0.00
0.00

0.00
0.00
0.00

0.00
0.00
0.00

<b>Moment</b>
<b>40055.50</b>
<b>40055.50</b>

ature



***Input information only in the yellow boxes!!!***

Date

Dragonfly Tail #

	Scale	Tare	Net Weight
Left Main	340.00		340.00
Right Main	342.00		342.00
Tail Wheel	19.00		19.00
Nose Wheel			0.00
<b>Total Weight</b>			701.00

<b>AC Empty Weight</b>	<b>Weight</b>
	701.00

<b>Additions</b>		
Pilot		
Passenger		
Front Bags		
Rear Bags		
Hoop Gear		40.00
Nose Gear		20.00
<b>Total Additions</b>		<b>60.00</b>

<b>Subtractions</b>		
Tail Wheel		3.00
MK I Gear		31.00
MK II Adjustment		10.00
<b>Total Subtractions</b>		<b>44.00</b>


<b>T/O Fuel</b>	Gallons		
Main Tank			0.00
Aft Tank			0.00
Header Tank			0.00

<b>Landing Fuel</b>	Gallons		
Main Tank			0.00
Aft Tank			0.00
Header Tank			0.00

	<b>Total Weight</b>
<b>Take-Off Total</b>	<b>717.00</b>
<b>Landing Total</b>	<b>717.00</b>

<b>Maximum Forward CG</b>
<b>Maximum Aft CG</b>

Computed By



**Retain header tank, shift seat back 3", expand main fuel tank aft 3" (CG s  
Convert to MK III, retain VW. Requires 10 lbs of forward ballast with 2 X 2  
limited to 7 gallons in main tank to have max T/O weight of 1200 lbs.**

**Phase 1**

Arm	Moment
51.70	17578.00
51.70	17681.40
221.00	4199.00
	0.00
	39458.40

Arm	Moment
	39458.40

79.00	0.00
79.00	0.00
27.00	0.00
92.00	0.00
	0.00
67.00	2680.00
18.00	360.00
	0.00
	3040.00

221.00	663.00
51.70	1602.70
45.00	450.00
	2715.70

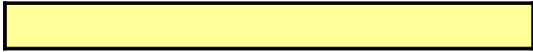
66.50	0.00
96.00	0.00
45.00	0.00

66.50	0.00
96.00	0.00
45.00	0.00

CG	Moment
55.48	39782.70
55.48	39782.70

58.70
63.50

Signature



height aft est 1.5")  
200 lb pilots and

# Weight and Balance Worksheet

**seat 3" aft and fuel tank CG shift 1.5" aft**

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Date

Dragonfly Tail # Phase 1

	Scale	Tare	Net Weight	Arm
Left Main	340.00		340.00	51.70
Right Main	340.00		340.00	51.70
Tail Wheel	19.00		19.00	221.00
Nose Wheel			0.00	
<b>Total Weight</b>			699.00	

	Weight	Arm
<b>AC Empty Weight</b>	699.00	

<b>Additions</b>				
Pilot			190.00	79.00
Passenger				79.00
Front Bags				27.00
Rear Bags				92.00
Corvaire Engine			50.00	8.00
Hoop Gear			40.00	67.00
Nose Gear			20.00	18.00
<b>Total Additions</b>			300.00	

<b>Subtractions</b>				
Tail Wheel			3.00	221.00
MK I Gear			31.00	51.70
MK II Adjustment			10.00	45.00
<b>Total Subtractions</b>			44.00	

<b>T/O Fuel</b>	Gallons			
Main Tank	15		93.00	66.50
Aft Tank	4		24.80	96.00
Header Tank	0		0.00	45.00

<b>Landing Fuel</b>	Gallons			
Main Tank	0		0.00	66.50
Aft Tank	1		6.20	96.00
Header Tank	0		0.00	45.00

	Total Weight	CG
<b>Take-Off Total</b>	<b>1072.80</b>	<b>59.34</b>
<b>Landing Total</b>	<b>961.20</b>	<b>57.93</b>

<b>Maximum Forward CG</b>	<b>58.70</b>
<b>Maximum Aft CG</b>	<b>63.50</b>

Computed By

Sign

**Eliminate header tank, shift seat back 3", expand main fuel tank aft 3" (CG shift aft est install 5 gallon aft fuel tank. Convert to Corvair and MK III. If pilot weight <210 lbs, aft ballast is required.**

<b>Moment</b>
17578.00
17578.00
4199.00
0.00
39355.00

<b>Moment</b>
39355.00

15010.00
0.00
0.00
0.00
400.00
2680.00
360.00
0.00
18450.00

663.00
1602.70
450.00
2715.70

6184.50
2380.80
0.00

0.00
595.20
0.00

<b>Moment</b>
<b>63654.60</b>
<b>55684.50</b>

CG Shift	1.40
From Center	-1.76
From Center	3.17

ature

1.5")