

**N1533 W&B**

G33 Bonanza *Current 9/12/12*

Item	(Fuel Distinctives)	Weight	Arm	Moment
Empty		<u>2119.21</u>	<u>79.58</u>	<u>168652.43</u>
Fuel Full 80 gal	80.00	<u>          </u>	<u>75.00</u>	<u>          </u>
Fuel to top tab 70 gal	70.00	<u>          </u>	<u>75.00</u>	<u>          </u>
Fuel to bottom tab 60 gal	60.00	<u>          </u>	<u>75.00</u>	<u>          </u>
Front Seat		<u>          </u>	<u>85.00</u>	<u>          </u>
Rear Seat		<u>          </u>	<u>117.00</u>	<u>          </u>
Baggage 1		<u>          </u>	<u>140.00</u>	<u>          </u>

**TOTALS**

--	--	--

**cg**

\_\_\_\_\_

\_\_\_\_\_

**LEGAL CG RANGE**

**81.3-86.7 (3300 lb max)**

**LEGAL CG RANGE**

**77.0-86.7 (2800 Lb or less)**

**MAX ALLOW GROSS**

**3300**

**USEFUL LOAD**

**1180.79**

**Weight / Balance & Equipment List Revision****Carolina Avionics Group, LLC -**

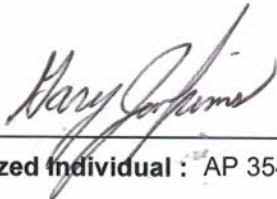
3650 Airport Loop Road Salisbury NC 28147

704-630-0211

**A/C Tail # :** N1533W**Register Name :** Mccoy Robert Jr.**Name 2 :** TangoWare**Address 1 :** 1609 Camden**Address 2 :****City, State, PC :** Marshall, NC 28103-9403**A/C Make :** Beech**A/C Model :** 58**A/C Serial # :** CD-1285**WO Ref # :** 12387**WB Date :** Sep-20-2012**WB ID # :** 197

Previous data taken from document dated Mar-23-2012 Previous useful load = 1169.00

Model / Part #	Description	( LB / FT )	Weight	CG/Arm	Moment
	Previous data ->		2131.00	79.47	169354.23
* REMOVED					
KR-85	ADF REC p/n 066-1023-00		-4.00	63.00	-252.00
KI-225	IND ADF p/n 066-3017-00		-1.00	65.00	-65.00
KX155-31	NAV/COM/IND 14V GS ( p/n 069-01024-0031 )		-5.30	62.00	-328.60
KY-197A	COM p/n 0641053-30		-2.80	61.00	-170.80
KNS-80	RNAV p/n 066-4008-00		-6.00	61.00	-366.00
APOLLO I	LORAN C		-2.75	62.00	-170.50
REMOVED	6 Items @		-21.85	61.92	-1352.90
* INSTALLED					
GA-35	GPS ANTENNA		0.50	120.30	60.15
GTN-750	GPSNAV/COM		9.30	61.74	574.18
MD41-1512	GPS ANNUNCIATOR		0.26	64.50	16.77
INSTALLED	3 Items @		10.06	64.72	651.10
NEW DATA >>	NEW USEFUL LOAD = 1180.79		2119.21	79.58	168652.43




---

**Authorized Individual :** AP 3548069 Gary Jenkins

5. Subtract the weight and moment of fuel to be used from the take-off weight and moment. The landing moment must be within the minimum and maximum moments shown on Gross Weight Moment Limits graph for that weight. If the total moment is less than the minimum moment allowed, useful load items must be shifted aft or forward load items reduced. If the total moment is greater than the maximum moment allowed, useful load items must be shifted forward or aft load items reduced. If the quantity or location of load items are changed, the calculations must be revised and the moments rechecked.

### SAMPLE LOADING CALCULATION

	Sample Airplane		Your Airplane	
	Weight (Lbs)	Moment (/100)	Weight (Lbs)	Moment (/100)
1. Basic Empty Weight	2050	1613		
2. Fuel (74 gal)	444	333		
3. Front seat occupied	340	289		
4. Rear seat occupied	340	398		
5. 5th seat (opt)	-	-		
6. Baggage	126	176		
7. Cargo (rear seat removed)*	-	-		
8. Total at take-off (check graph)	3300	2809		
9. Less fuel (60 gals)	-360	-270		
10. Total at landing (check graph)	2940	2539		

\*When the rear seats are removed, subtract the respective weight and moment/100 from the Basic Empty Weight and Moment/100.

USEFUL LOAD WEIGHTS AND MOMENTS

WEIGHT	BAGGAGE		CARGO (WITH REAR SEATS REMOVED)	
	ARM 140	MOMENT/100	FWD. OF SPAR	AFT OF SPAR
			ARM 108	ARM 135
10	14	11	14	14
20	28	22	27	27
30	42	32	41	41
40	56	43	54	54
50	70	54	68	68
60	84	65	81	81
70	98	76	95	95
80	112	86	108	108
90	126	97	122	122
100	140	108	135	135
110	154	119	149	149
120	168	130	162	162
130	182	140	176	176
140	196	151	189	189
150	210	162	203	203
160	224	173	216	216
170	238	184	230	230
180	252	194	243	243
190	266	205	257	257
200	280	216	270	270
210	294		284	284
220	308		297	297
230	322		311	311
240	336		324	324
250	350		338	338
260	364		351	351
270	378		365	365

USEFUL LOAD WEIGHTS AND MOMENTS

WEIGHT	OCCUPANTS		
	FIFTH SEAT ARM 144	REAR SEATS ARM 117	FRONT SEATS ARM 85
120			102
130			111
140			119
150			128
160			136
170			145
180			153
190			162
200			170
29			140
43			152
58			164
72			176
86			187
101			199
115			211
130			222
144			234
158			
173			
187			
202			
216			
230			
245			

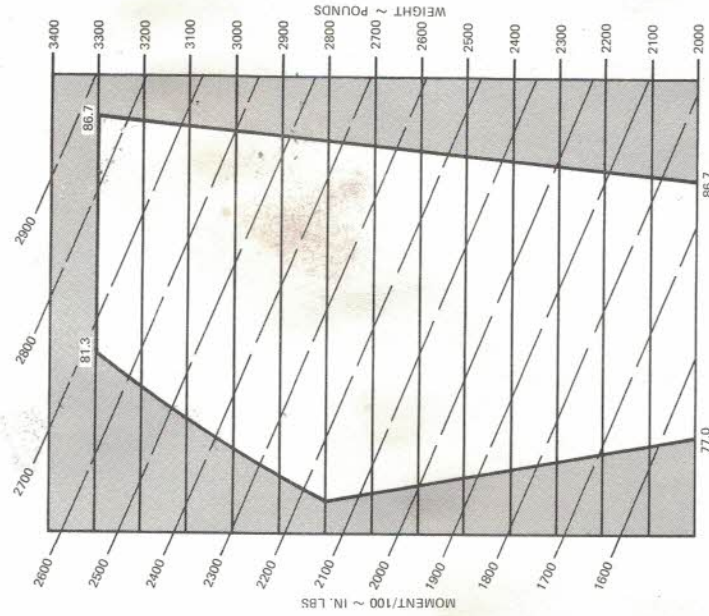


**USEFUL LOAD WEIGHTS AND MOMENTS**

**FUEL**

LEADING EDGE TANKS ARM 75		
GALLONS	WEIGHT	MOMENT/100
5	30	23
10	60	45
15	90	68
20	120	90
25	150	113
30	180	135
35	210	158
40	240	180
44	264	198
50	300	225
55	330	248
60	360	270
65	390	293
70	420	315
74	444	333

**GROSS WEIGHT MOMENTS LIMITS**



CENTER OF GRAVITY - INCHES AFT OF DATUM  
ENVELOPE BASED ON THE FOLLOWING WEIGHT AND  
CENTER OF GRAVITY LIMIT DATA (LANDING GEAR DOWN)

WEIGHT CONDITION	FORWARD C.G. LIMIT	AFT C.G. LIMIT
3300 LB. (MAXIMUM TAKE-OFF OR LANDING)	81.3	86.7
2800 LB. OR LESS	77.0	86.7