

DAN 220 #

CHET 167 #

N557BB 10-18-07

Airplane Weight and Balance

Builder: BRYANT, FREDERICK M. Date: 8/13/07
 Model: RANS S-12 Registration: 557BB
 Gross weight: 975 pounds (lbs.) Serial #: 11960760
 CG Range: 69.5-76.5 inches (in.)
 Datum is: CG @ center of Nosewheel

Empty Weight & CG	Wt. (lb.)	Arm (in.)	Moment (in.lb.)
Left wheel =	287	18	2238
Right wheel =	276	18	2152.8
Tail =	10	214	2140
Aircraft empty weight =	573		46054
Empty CG =	80.38	8038	

Most Aft Weight & CG	Wt. (lb.)	Arm (in.)	Moment (in.lb.)
Aircraft Empty =	573		46054
Front Seat =	170	49	8330
Rear Seat =	0	-	0
Baggage =	30	70	2100
Fuel =	108	78	8424
Weight =	881		18854
CG =		73.68	

Most Forward Weight & CG	Wt. (lb.)	Arm (in.)	Moment (in.lb.)
Aircraft Empty =	573		46054
Front Seat =	170	49	8330
Rear Seat =	0	-	0
Baggage =	0	-	0
Fuel =	30	78	2340
Weight =	773		56724
CG =		73.38	

Flight Test Weight & CG	Wt. (lb.)	Arm (in.)	Moment (in.lb.)
Aircraft Empty =	573		46054
Front Seat =	170	49	8330
Rear Seat =	0	-	0
Fuel =	36	78	2808
Weight =	779		57192
CG =		73.42	

Notes:

1. The most forward and most aft CG limits are calculated using the FAA standard pilot and passenger weight of 170 pounds.
2. Minimum fuel weight is calculated using the formula: ((Max. continuous hp) / 12) X 6
3. For most aft CG calculation maximize all weight aft of the aft CG limit and minimize all weights forward of the aft CG limit.
4. For most forward CG calculations maximize all weight forward of the forward CG limit and minimize all weights aft of the forward CG limit.
5. Pilot of 170 pounds must be in both Most Aft and Most Forward CG calculations.
6. Weigh aircraft in a level flight attitude.
7. Weight X Arm = Moment
8. Moment / Weight = CG