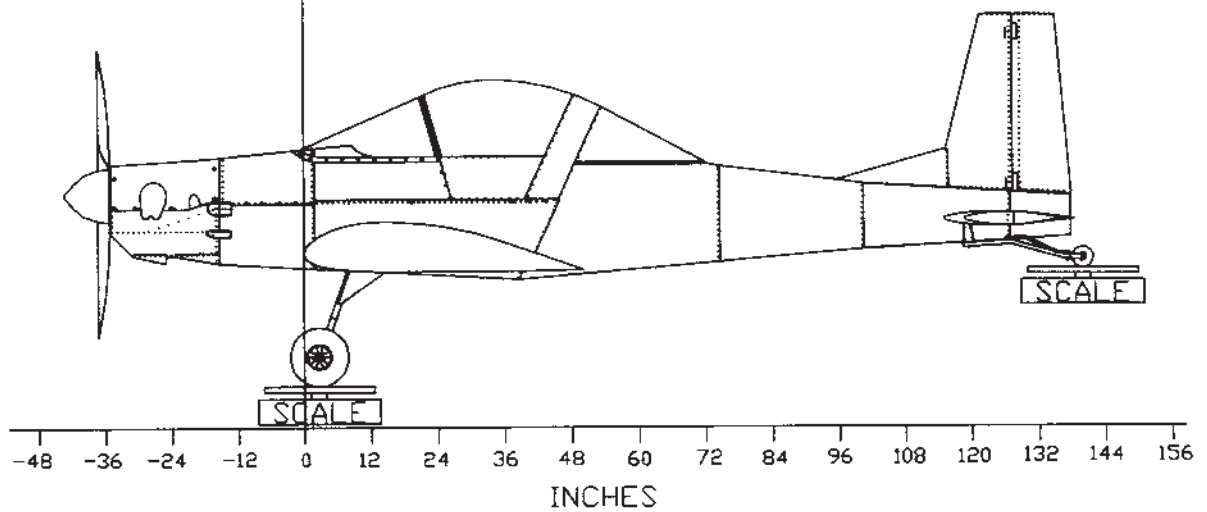


Datum line is the leading edge of wing.

Weigh the plane with the siderails level. Place a scale under each tire. Plane should also be level spanwise.



EXAMPLE:

To determine empty CG:

ITEMS	WEIGHT	ARM(inches)	MOMENT(in-lbs)
Left wheel	121	2	242
Right wheel	123	2	246
Tail wheel	8	142	1136
TOTALS	252		1624

$$\frac{\text{TOTAL MOMENT}}{\text{TOTAL WEIGHT}} = \frac{1624}{252} = 6.44 = \text{Empty CG Arm}$$

EXAMPLE:

To determine take off CG:

ITEMS	WEIGHT	ARM(inches)	MOMENT(in-lbs)
Aircraft	252	6.44	1624
Pilot	170	27	4590
Fuel (negative arm)	30	-3	-90
TOTALS	452		6124

$$\frac{\text{TOTAL MOMENT}}{\text{TOTAL WEIGHT}} = \frac{6124}{452} = 13.55 = \text{Take off CG}$$

UltraCruiser CG limits are 10.8" (20%) forward and 16.2" (30%) aft.