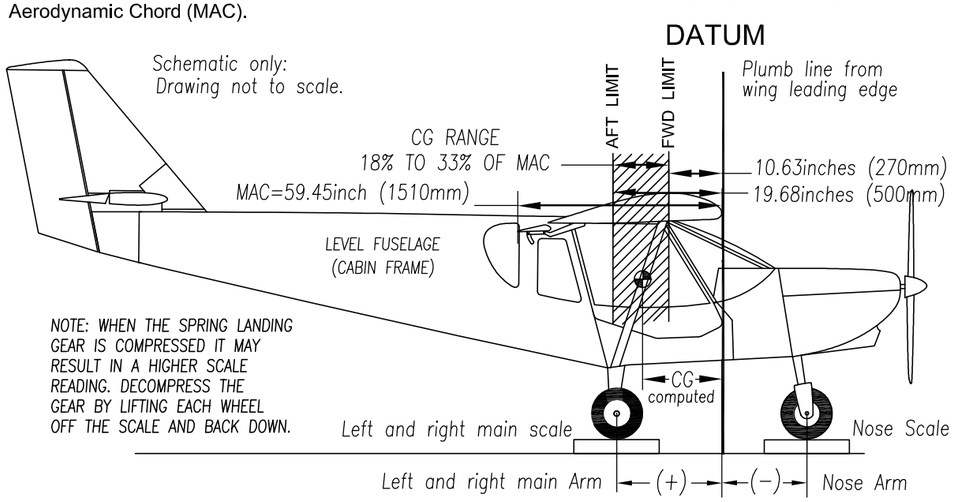
WEIGHT AND BALANCE REPORT

DATE: _ _ _ _ _ _ _ _ _ REGISTRATION: _ _ _ _ _ _ _ _ AIRCRAFT: CRUZER CH 750

SIGNATURE: _

PART 1 of the weight and balance report is for the manufacturer (the builder is the manufacturer for experimental or amateur-built aircraft) to provide the empty weight of the aircraft and the empty aircraft moment.

To simplify calculations, the DATUM line is chosen to coincide with the leading edge of the wing at the Mean Aerodynamic Chord (MAC).



Top off the engine oil, and remove any uncessary items from the cabin. First, level the fuselage spanwise and longitudinally as shown in the above diagram. Then use a plumb bob on the leading edge of each wing and mark a point on the floor. Connect the left and right marks with a straight line that represents the datum line. With the help of an assistant, measure the distance from the datum line to the center of each wheel and record.

The empty aircraft must be placed on scales to record the weight under each wheel. Refer to the diagram for the correct aircraft position. Tare is the weight of any chocks or restraints used to hold the aircraft level on the scales. Net weight is the scale reading less the tare weight

Weighing Point	Scale Reading (pounds)	Tare	W x A = M Net Weight	Arm (inches)	Moment
Right Main					
Left Main					
Nose Wheel				–	–
EMPTY AIRCRAFT					

PART 2 is the traditional weight and balance calculation. The first line is the empty aircraft weight and moment obtained in PART 1.

The pilot in command has the responsibility to ensure the take-off weight of the loaded aircraft is under the allowable limit and that the center of gravity (CG) is within the allowable range.

Forms 1 and 2 are to check the CG at the most forward and aft CG positions. The most forward check is done with only the pilot and minimum fuel on board. The aft CG check is done by loading up to the gross weight. Form 3 is a worksheet for a typical flight configuration.

WEIGHT AND BALANCE CALCULATION

	WEIGHT lb	ARM inches	Moment
Empty Aircraft			
Pilot		25.59" *	
Co-pilot		25.59" *	
Fuel (Wing Tanks) 3.3 gallons (6 lb/gal)	20	24.80"	496
Baggage area 80 max (40 lb per side)		45.28" *	
	total weight		total moment

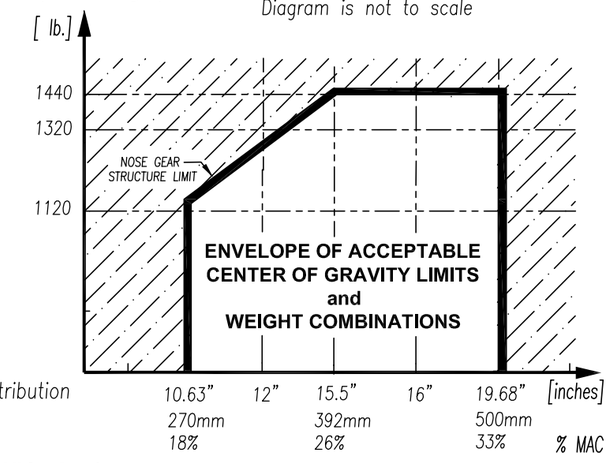
FORM 1

(forward CG check)

* depends on weight distribution

$CG = \frac{\text{TOTAL MOMENT}}{\text{TOTAL WEIGHT}}$ CG = _____ **(above 10.63" inches)**

Loaded Aircraft (Total weight)



	WEIGHT lb	ARM inches	Moment
Empty Aircraft			
Pilot		25.59" *	
Co-pilot		25.59" *	
Fuel (Wing Tanks) ___gallons (6 lb/gal)		24.80"	
Baggage area 80 max (40 lb per side)		45.28" *	
	total weight		total moment

FORM 2

(rear CG check)

* depends on weight distribution

CG = _____ **(less than 19.68" inches)**

	WEIGHT lb	ARM inches	Moment
Empty Aircraft			
Pilot		25.59" *	
Co-pilot		25.59" *	
Fuel (Wing Tanks) ___gallons (6 lb/gal)		24.80"	
Baggage area 80 max (40 lb per side)		45.28" *	
	total weight		total moment

FORM 3

(worksheet)

* depends on weight distribution

CG = _____

Cruzer CH 750	Center of Gravity Limits	C75-G-3
	zenithair.com	DATE: 12/15