

EMPTY WEIGHT AND CENTER OF GRAVITY (C.G)

A/C Registration # \_\_\_\_\_

DATE: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

The empty weight and C.G. location are calculated using following table, where

N = Weight under Nose Wheel

R and L = Weight under Right and Left Wheel

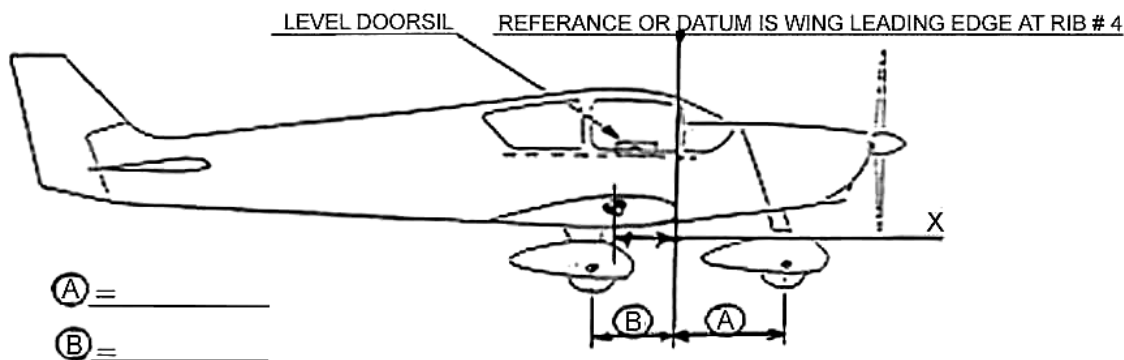
W = Empty Weight

(A) and (B) = Horizontal distance from datum to Nose and Main wheels; with a plumb line project datum and wheel axels to the floor, then measure dimension (A) and (B)

X = Moment arm (C.G. location rear of datum).

	SCALE READING	DEDUCT TARE	NET WEIGHT	
NOSE WHEEL		-	N=	(1)
RIGHT MAIN		-	R=	(2)
LEFT MAIN		-	L=	(3)
TOTAL MAIN	-----		R + L =	(4) = (2) + (3)
EMPTY WEIGHT	-----		W = R + L + N =	(5) = (4) + (1)
-----			(B) x (R+L) =	(6) = B x (4)
-----			(A) x N = -	(7) = -A x (1)
EMPTY CENTRE OF GRAVITY LOCATION			$X = \frac{B(R+L) - AN}{W}$	(8) = $\frac{(6) + (7)}{(5)}$

- With the airplane level, record the weight shown on each scale. Deduct the tare, if any, from each reading.

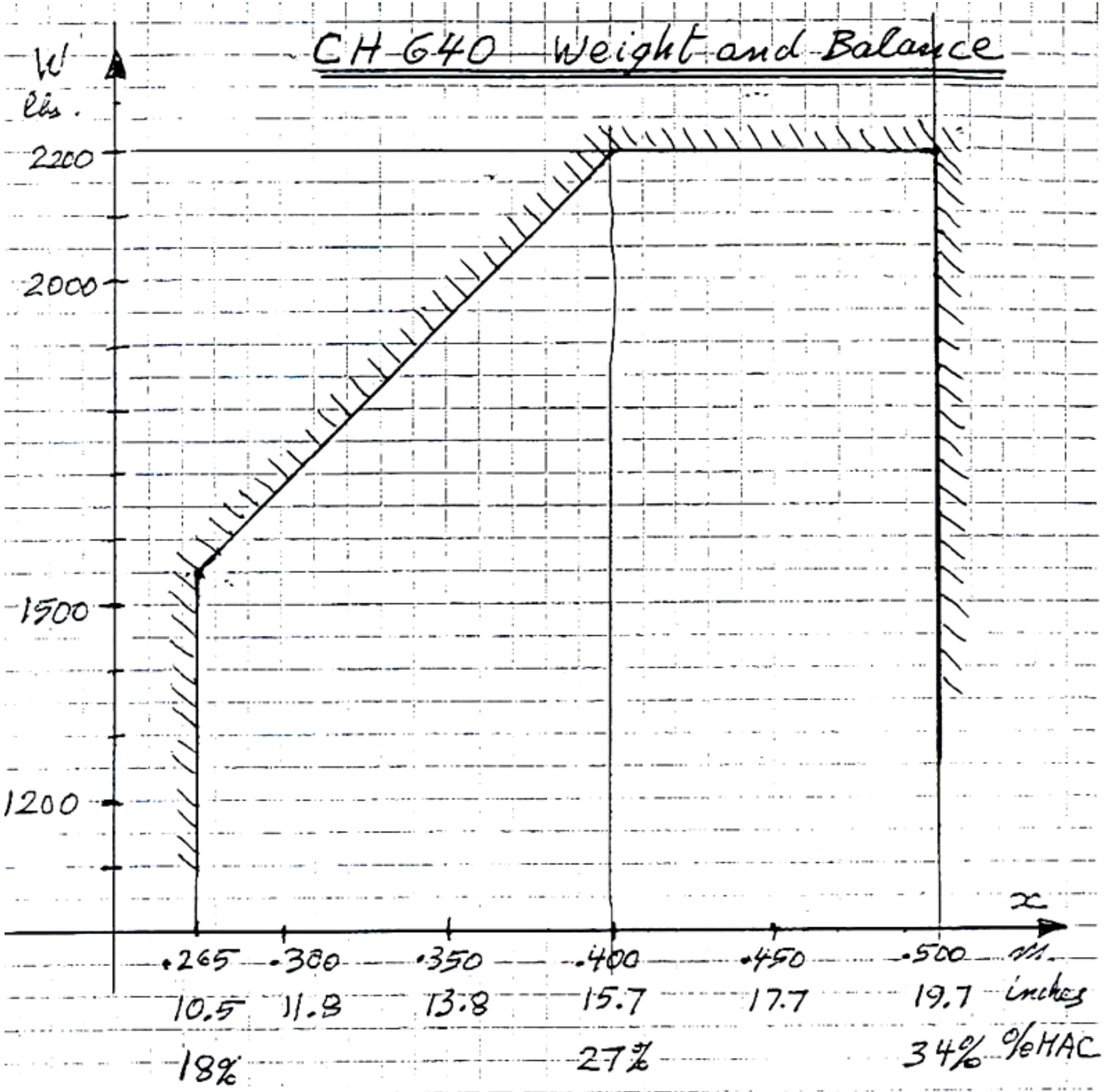


X in above is the empty weight of the aircraft.

EMPTY WEIGHT AND CENTER OF GRAVITY (C.G)

A/C Registration # \_\_\_\_\_

DATE: \_\_\_\_\_



**WEIGHT AND CENTER OF GRAVITY (C.G)**

A/C Registration # \_\_\_\_\_

DATE: \_\_\_\_\_

Before each flight, the weight and balance of the loaded airplane should be calculated and checked to fit inside the approved limits.

- 1) Obtain the Empty weight and C.G. position
- 2) Measure Position in inches and weights
- 3) Calculate X and enter into Weight & Balance Chart on page 2.

Enter all the applicable values obtained from page 6.4 and above tables into the appropriate blocks below and perform the necessary calculations.

	Weight lbs	Position inches	Moment lbs.inches
1) Empty			
2) Fuel			
3) Occupant(s) Front			
4) Occupant(s) / Baggage Rear			
4) Baggage Rear of Seats			
<b>Total</b> (add the columns)	W=		M=

Loaded Aircraft weight is  $W = \text{_____}$  (lbs)

Loaded C.G. position is  $X = M/W = \text{_____}$  = (X in inches)

Check that both W and X fall within the limits in Weight & Balance Chart.



$x$  Front seats =

$x$  Rear seat =

$x$  fuel = .27 m

Fuel =  $2 \times 72 \text{ l} = 2 \times 19 \text{ gal} = 230 \text{ lbs}$ .

March 1/01 CH

**Note that x Front seat and x rear to be determined by weighing by customer / pilot.**

**Check your fuel tank size. It may be different than the 19 gal. shown here.**

**If a rear baggage compartment has been added to your aircraft, add x rear baggage to the list.**