

EMPTY WEIGHT C.G. POSITION CALCULATION

Aircraft type:	Taylorcraft BC12D	Date of test:	4-Feb-09
Aircraft reg:	Serial No.:		
Datum =	Leading edge of wing.		
Levelling reference:	Upper surface of horizontal stabilizer.		
Max Gross weight:	1200	lbs	
Empty weight c.g.range:	14.8	to	17.9 inches aft of datum
In-service cg range:	14.2	to	20 inches aft of datum
Cockpit Placards regarding loading limitations:	Max Baggage	5	50 lbs
Max contents of fuselage tank:	12	US Gal	
Max contents of wing tanks:	12	US Gal	
Comments:	Aircraft weighed levelled, with oil in tank and fuel tanks filled as stated below.		
	FAA Aircraft Specification A-696 refers.		

Fill

As-measured weight on main wheels:	719.4	lbs	at	3	inches aft of datum.	Moment arm =	2158.20	inch pounds.
As-measured weight on tail wheel:	65.6	lbs	at	198.00	inches aft of datum.	Moment arm =	12988.80	inch pounds.
"As weighed" aircraft weight =	785.00	lbs (A)					15147.00	(C)

Contents of fuselage tank:	12	US Gal.	at	-9	inches aft of datum.	Moment arm =	-648	inch pounds.
Contents of wing tank 1:		US Gal.	at	24	inches aft of datum.	Moment arm =	0	inch pounds.
Contents of wing tank 2:		US Gal.	at	24	inches aft of datum.	Moment arm =	0	inch pounds.
Total fuel carried during test:	12	US Gal.					-648	(D)
Total weight of fuel carried during test:	72	lbs (B)	based on	6	pounds / US gal			

Summation of Moment arms to eliminate fuel = (C)-(D) = 15795.00 inch pounds (E)

Aircraft empty weight = (A)-(B) = 713.00 lbs (F)

Empty weight c.g. position = (E) / (F) = 22.15 inches aft of datum.
Empty weight C.G. out of limits!

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