

Model: DA 40 NG



Aircraft Serial Number	40.NC156
Registration	N216DA
Issue Date	November 1, 2021

**Aircraft Specific Weighting Report**

Data with reference to the Type Certificate Data Sheet and the Flight Manual  
 Reference Plane: Vertical plane 2194mm (86.38 in) in front of the leading edge of wing at the root rib.  
 Horizontal reference plane Wedge 600:31 (2.96°), 2910mm (114.57 in) aft of the step in the cockpit trim.

Equipment list dated November 1, 2021

**ORIGINAL**

Cause for weighing

Weight and Balance Calculations

Weight Condition:  
 Include brake fluid, lubricant (1.0 liter / 1.06 qts), coolant, gearbox oil, engine oil (7.0 liter / 7.4 qts)  
 plus unusable fuel (2.0 US gal / approx. 7.6 liter).

Empty Weight

Support	Gross		Tare		Net Weight	
	kg	lbs	kg	lbs	kg	lbs
Front, G <sub>2</sub>	152.00	335.00	0.00	0.00	152.00	335.00
Main, G <sub>1LH</sub>	387.40	854.00	0.00	0.00	387.40	854.00
Main, G <sub>1RH</sub>	381.90	842.00	0.00	0.00	381.90	842.00
EMPTY WEIGHT, G					921.30	2031.00

	Lever Arm	
	mm	in.
X <sub>2</sub>	901.00	35.47
X <sub>1LH</sub>	2735.00	107.68
X <sub>1RH</sub>	2735.00	107.68

Empty Weight Centre of Gravity, (X<sub>CG</sub>):

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.432 \text{ m}}{95.77 \text{ in.}}$$

Empty Weight Moment, (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2240.60 \text{ kg-m}}{194508.87 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

Maximum Take-off Weight	1310.00 kg	2888.00 lbs
Empty Weight	921.30 kg	2031.00 lbs
Maximum Useful Load	388.70 kg	857.00 lbs

Data to be entered into the Flight Manual:

Empty Weight, G:	921.30 kg 2031.00 lbs	Empty Weight Moment, M:	2240.60 kg-m 194508.87 in-lbs
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Place: Date:	D.A.I.C - CYXU November 1, 2021	Authorizing Stamp DA Q 81	Authorizing Signature 
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