

Model: DA 40 NG



Aircraft Specific Weighting Report

Aircraft Serial Number	40.NC191
Registration	N251LA
Issue Date	June 15, 2022

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 June 15, 2022

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 ₂	136.10	300.00	0.00	0.00	136.10	300.00
Main, G _{1LH}	412.80	910.00	0.00	0.00	412.80	910.00
Main, G _{1RH}	412.30	909.00	0.00	0.00	412.30	909.00
EMPTY WEIGHT, G					961.20	2119.00

	Lever Arm	
	mm	in.
X ₂	891.00	35.08
X _{1LH}	2734.00	107.64
X _{1RH}	2733.00	107.60

Empty Weight Centre of Gravity, (X_{CG}):

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.473 \text{ m}}{97.35 \text{ in.}}$$

Empty Weight Moment, (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2377.05 \text{ kg-m}}{206284.65 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

Maximum Take-off Weight	1310.00 kg	2888.00 lbs
Empty Weight	961.20 kg	2119.00 lbs
Maximum Useful Load	348.80 kg	769.00 lbs

Data to be entered into the Flight Manual:

Empty Weight, G: 961.20 kg 2119.00 lbs	Empty Weight Moment, M: 2377.05 kg-m 206284.65 in-lbs
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Place: D.A.I.C - CYXU Date: June 15, 2022	Authorizing Stamp DA Q 81	Authorizing Signature
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