

Model: DA 40 NG



Aircraft Serial Number	40.NC183
Registration	N246SA
Issue Date	April 28, 2022

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 April 28, 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	152.00	335.00	0.00	0.00	152.00	335.00
Main, G _{1LH}	388.30	856.00	0.00	0.00	388.30	856.00
Main, G _{1RH}	386.00	851.00	0.00	0.00	386.00	851.00
EMPTY WEIGHT, G					926.30	2042.00

	Lever Arm	
	mm	in.
X ₂	891.00	35.08
X _{1LH}	2735.00	107.68
X _{1RH}	2738.00	107.80

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

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.434 \text{ m}}{95.82 \text{ in.}}$$

Empty Weight Moment. (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2254.61 \text{ kg-m}}{195664.44 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

Maximum Take-off Weight	1310.00 kg	2888.00 lbs
Empty Weight	926.30 kg	2042.00 lbs
Maximum Useful Load	383.70 kg	846.00 lbs

Data to be entered into the Flight Manual:

Empty Weight, G:	Empty Weight Moment, M:
<u>926.30 kg</u> <u>2042.00 lbs</u>	<u>2254.61 kg-m</u> <u>195664.44 in-lbs</u>

Place: D.A.I.C - CYXU	Authorizing Stamp	Authorizing Signature
Date: April 28, 2022		