

Model: DA 40 NG



Aircraft Specific Weighting Report

Aircraft Serial Number	40.NC267
Registration	N457SA
Issue Date	September 25, 2023

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 September 25, 2023

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	140.60	310.00	0.00	0.00	140.60	310.00
Main, G _{1LH}	412.80	910.00	0.00	0.00	412.80	910.00
Main, G _{1RH}	409.60	903.00	0.00	0.00	409.60	903.00
EMPTY WEIGHT, G					963.00	2123.00

	Lever Arm	
	mm	in.
X ₂	880.00	34.65
X _{1LH}	2744.00	108.03
X _{1RH}	2730.00	107.48

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

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.466 \text{ m}}{97.08 \text{ in.}}$$

Empty Weight Moment, (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2374.76 \text{ kg-m}}{206100.84 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

Maximum Take-off Weight	1310.00 kg	2888.00 lbs
Empty Weight	963.00 kg	2123.00 lbs
Maximum Useful Load	347.00 kg	765.00 lbs

Data to be entered into the Flight Manual:

Empty Weight, G:	Empty Weight Moment, M:
963.00 kg	2374.76 kg-m
2123.00 lbs	206100.84 in-lbs

Place: D.A.I.C - CYXU	Authorizing Stamp: DA Q 81	Authorizing Signature: [Signature]
Date: September 25, 2023		