

Model: DA 40 NG



|                        |              |
|------------------------|--------------|
| Aircraft Serial Number | 40.NC245     |
| Registration           | N168         |
| Issue Date             | May 30, 2023 |

**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 May 30, 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 <sub>2</sub>  | 141.50 | 312.00 | 0.00 | 0.00 | 141.50     | 312.00  |
| Main, G <sub>1LH</sub> | 418.70 | 923.00 | 0.00 | 0.00 | 418.70     | 923.00  |
| Main, G <sub>1RH</sub> | 414.10 | 913.00 | 0.00 | 0.00 | 414.10     | 913.00  |
| EMPTY WEIGHT, G        |        |        |      |      | 974.30     | 2148.00 |

|                  | Lever Arm |        |
|------------------|-----------|--------|
|                  | mm        | in.    |
| X <sub>2</sub>   | 899.00    | 35.39  |
| X <sub>1LH</sub> | 2731.00   | 107.52 |
| X <sub>1RH</sub> | 2740.00   | 107.87 |

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

Empty Weight CG Formula

$$X_{CG} = \frac{((G_{1LH} + G_{1RH}) * X_1) + (G_2 * X_2)}{G_2 + G_{1LH} + G_{1RH}} = \frac{2.469 \text{ m}}{97.19 \text{ in.}}$$

Empty Weight Moment, (M):

Empty Weight Moment Formula

$$M = G * X_{CG} = \frac{2405.55 \text{ kg-m}}{208764.12 \text{ in-lbs}}$$

Maximum Permitted Useful Load:

|                         |            |             |
|-------------------------|------------|-------------|
| Maximum Take-off Weight | 1310.00 kg | 2888.00 lbs |
| Empty Weight            | 974.30 kg  | 2148.00 lbs |
| Maximum Useful Load     | 335.70 kg  | 740.00 lbs  |

Data to be entered into the Flight Manual:

|  |   |
|--|---|
| Empty Weight, G:<br>974.30 kg<br>2148.00 lbs | Empty Weight Moment, M:<br>2405.55 kg-m<br>208764.12 in-lbs |
|--|---|

|                 |                                |                                 |                           |
|-----------------|--------------------------------|---------------------------------|---------------------------|
| Place:<br>Date: | D.A.I.C - CYXU<br>May 30, 2023 | Authorizing Stamp<br>DA<br>Q 81 | Authorizing Signature<br> |
|-----------------|--------------------------------|---------------------------------|---------------------------|