

### WEIGHING REPORT

Model: DA 40 Serial Number: 40,518 Registration: N139PS

Data with reference to the Type Certificate Data Sheet and the Airplane Flight Manual.

Reference Plane: Vertical plane 2194 mm (86.38 in) in front of the leading edge of wing at the root rib.

Horizontal reference line: Wedge 600:31 (2.96°), 2910 mm (114.57 in) aft of the step in the cockpit rim.

Equipment Inventory - dated: \_\_\_\_\_ Cause for Weighing: verify previous wt & balance sheets

#### Weight and Balance Calculations (Weighing at the wheels)

Weight Condition: Including ✓ brake fluid, engine ✓ oil (MAX level), coolant (TAE version only), and unusable fuel (Lycoming: 2 x 0.5 US gal / 2 x 1.9 liters; TAE: 2 x 1 US gal / 2 x 3.8 liters). with wheel fairings removed

Support	Gross	Tare	Net
MAIN G <sub>1LH</sub>			762.00
MAIN G <sub>1RH</sub>			763.66
NOSE G <sub>2</sub>			230.33
Empty Weight			1756.0

Lever Arm
X <sub>1LH</sub> = 107.72
X <sub>1RH</sub> = 107.72
X <sub>2</sub> = 37.99

Calculate the Empty Weight, $G = \text{MAIN } G_{1LH} + \text{MAIN } G_{1RH} + \text{NOSE } G_2$ .	G = 1756.0
Calculate the Empty Weight Moment, $M = (G_{1LH} * X_{1LH}) + (G_{1RH} * X_{1RH}) + (G_2 * X_2)$ .	M = 173095.1767
Calculate the Empty Weight Center-of-Gravity position, $X_{CG} = M/G$ .	X <sub>CG</sub> = 98.57
Maximum permitted all-up-weight: Max AUW (see AFM). <u>Max gross</u>	2646
Maximum useful load = Max AUW - G.	890.0

Record the Empty Weight (G) and the Empty-Weight Moment (M) in the Airplane Flight Manual.

Place/Date <u>AdvAvid 15 June 2021</u>	Authorizing Stamp <u>A+ P3517275</u>	Authorizing Signature <u>Chuck Harvie</u>
---	---	--

Figure 6: Weighing Report for Mechanical Scales Under the Wheels

	Detail Steps/Work Items	Key Items/Reference
(32)	Calculate the Empty Weight, G, from the Net values.	$G =$ <b>1756.0</b> Net $G_{1LH} +$ Net $G_{1RH} +$ Net $G_2$
(33)	Calculate the Empty Weight Moment, M.	$M =$ <b>173095.1767</b> $(G_{1LH} * X_{1LH}) + (G_{1RH} * X_{1RH}) + (G_2 * X_2)$
(34)	Calculate the position of the Empty Weight Center-of-Gravity, $X_{CG}$ .	$X_{CG} = M/G$ <b>98.57</b>
(35)	Record the Empty Weight (G) and the Empty Weight Moment (M) in the Airplane Flight Manual.	<b>890.0</b>

*Max Gross = 2646*

*15 June 2021  
Chuck Harvie  
a+p 3517275*