

WEIGHT AND BALANCE FORM

Manufactured by: B. Grob Flugzeugbau

Manufacture Date: 1976

Model: G-102 Astir CS

Serial Number: 1387

Registration: N6324Z

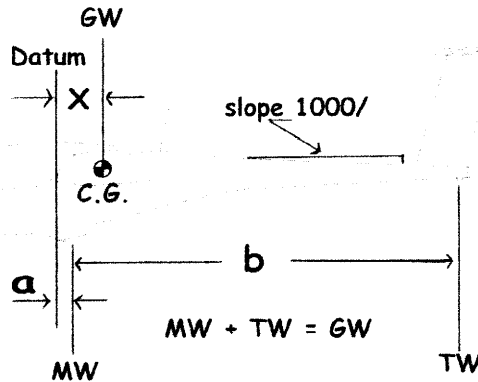
Owner: Bud Shaw

Weight and Balance data based on Equipment List dated: 11 July 2023

TECHNICAL DATA 1. Datum: Wing leading edge at its root rib

2. Leveling: Slope of fuselage top surface, 1000 / 40

WEIGH AND CENTER OF GRAVITY CALCULATION

Ballast weights installed


| Component mass | |
|------------------------|-------------|
| Item | kgs. / lbs. |
| right wing + aileron | |
| left wing + aileron | |
| fuselage | |
| horz. stab. + elevator | |
| rudder | |
| Total mass | |

Values for

MW 533.0 lbs a 3.8 in.

TW 78.2 lbs. b 168.5 in.

MW + TW = GW 611.2 Lbs.

$$X = \frac{TW * b}{GW} + a = \text{Center of Gravity location aft of Datum}$$

$$X = \frac{78.2 * 168.5}{611.2} + 3.8 = \text{Empty Weight C. G.} = 25.3 \text{ inches aft of the Datum.}$$

Note: The value of "a" and "b" can vary with the weight of the glider. These dimensions must be checked at each weighing.

Flight Weight c.g. range:

Inches aft of Datum

Forward limit 9.8 in.

Aft Limit 16.7 in

MAXIMUM ALLOWABLE WEIGHTS

Maximum Gross Weight: No water ballast: 836.0 lb

Useful load 224.8 lbs. No water ballast.

Maximum Gross Weight: With water ballast: 990.0 lbs..

Useful load 242.5 lbs. With water ballast.

Maximum weight of non-lifting parts 528.0 lbs

 Data Checked by Robert J. Modell #1878801 I.A.

 Date 11 JULY 2023

WEIGHT AND BALANCE FORM

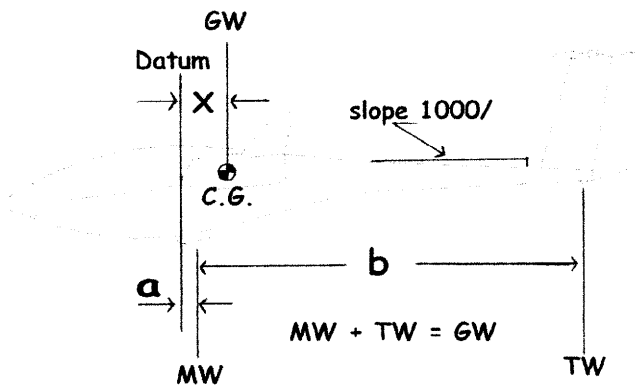
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| Manufactured by: B. Grob Flugzeugbau | Manufacture Date: 1976 |
| Model: G-102 Astir CS | Serial Number: 1387 |
| Owner: Bud Shaw | Registration: N6324Z |

Weight and Balance data based on Equipment List dated: 11 July 2023

TECHNICAL 1. Datum: Wing leading edge at its root rib
DATA 2. Leveling: Slope of fuselage top surface, 1000 / 40

WEIGH AND CENTER OF GRAVITY CALCULATION

No ballast weights installed



| Component mass | |
|------------------------|-------------|
| Item | kgs. / lbs. |
| right wing + aileron | |
| left wing + aileron | |
| fuselage | |
| horz. stab. + elevator | |
| rudder | |
| Total mass | |

Values for

MW 525.0 lbs a 3.8 in.
 TW 81 lbs. b 168.5 in.
 MW + TW = G 606.0

$$X = \frac{TW * b}{GW} + a = \text{Center of Gravity location aft of Datum}$$

$$X = \frac{81 * 168.5}{606} + 3.8 = \text{Empty Weight C. G.} = 26.3 \text{ inches aft of the Datum.}$$

Note: The value of "a" and "b" can vary with the weight of the glider. These dimensions must be checked at each weighing.

Flight Weight c.g. range:
 Inches aft of Datum Forward limit 9.8 in. Aft Limit 16.7 in

MAXIMUM ALLOWABLE WEIGHTS

Maximum Gross Weight; No water ballast: 836.0 lb
 Useful load 230.0 lbs. No water ballast.

Maximum Gross Weight: With water ballast: 990.0 lbs.
 Useful load 242.5 lbs. With water ballast.

Maximum weight of non-lifting parts 528.0 lbs

Data Checked by Robert J. Mudd #1878801 I.A.

Date 11 JULY 2023

**Minimum front seat load
Ballast weights in nose**

N6324Z

SN:1387

Date: 11 July 2023

Fwd of Datum = -- Aft of datum = + Datum Is: Leading edge of wing at root.

In flight C G limits: 9.8 inches to 16.7 inches Aft of datum

Weights in Pounds

Glider equipped as per Equipment List dated 11 July 2023

| Item | Weight | Arm / CG | Moment |
|-----------------|--------|----------|----------|
| Original W&B | 611.2 | 25.3 | 1,5463.3 |
| Front seat load | 150.0 | -18.7 | -2805.0 |
| Gross Weight | 761.2 | 16.6 | 1,2658.3 |
| | | | |

| Item | Weight | Arm / CG | Moment |
|-----------------|--------|----------|--------|
| Original W&B | | | |
| Front seat load | | | |
| Gross Weight | | | |
| | | | |

| Item | Weight | Arm / CG | Moment |
|------|--------|----------|--------|
| | | | |
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| Item | Weight | Arm / CG | Moment |
|------|--------|----------|--------|
| | | | |
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Checked by
Robert Mudd A&P 1878801 _____

**Minimum front seat load
No ballast weights in nose**

N6324Z

SN: 1387

Date: 11 July 2023

Fwd of Datum = -- Aft of datum = + Datum Is: Leading edge of wing at root.

In flight C G limits: 9.8 inches to 16.7 inches Aft of datum

Weights in Pounds

Glider equipped as per Equipment List dated 11 July 2023

| Item | Weight | Arm / CG | Moment |
|-----------------|--------|----------|----------|
| Original W&B | 606.0 | 26.3 | 1,5937.8 |
| Front seat load | 165.0 | -18.7 | -3085.5 |
| Gross Weight | 771.0 | 16.66 | 1,2852.3 |
| | | | |

| Item | Weight | Arm / CG | Moment |
|-----------------|--------|----------|--------|
| Original W&B | | | |
| Front seat load | | | |
| Gross Weight | | | |
| | | | |

| Item | Weight | Arm / CG | Moment |
|------|--------|----------|--------|
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| Item | Weight | Arm / CG | Moment |
|------|--------|----------|--------|
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Checked by
Robert Mudd A&P 1878801 _____