



SERVICE BULLETIN

PROCEDURE FOR WEIGHT AND BALANCE IBIS MAGIC GS-700
(AW WINGS) AIRPLANE

May 25th, 2010.

SB-Ibis-012

INFORMATIVE

AIRCRAFT AFFECTED:

All Aircraft type IBIS Model (Magic AW Wings), made in the company, which they will perform the procedure with respect to weight and balance.

REASON:

Inform all users of aircraft Magic the right way to run the weight and balance procedure established by IBIS Aircraft S.A. accordance with applicable regulations.

SUBJECT:

Run the procedure for weight and balance as established by the company in this document, which is supported in FAR 23 standards, ASTM, and LTF-UL. (LTF-UL Standards 23, LTF-UL 25, LTF-UL 29, related to this procedure.).



CALCULATION PROCEDURE OF WEIGHT AND BALANCE IBIS AIRCRAFT MODEL MAGIC GS-700 AW WINGS

1. INTRODUCTION

This section shows the procedures for establishing the basic empty weight of the aircraft, as well as the time of the aircraft and its center of gravity.

2. PROCEDURE OF WEIGHT.

INDICATIONS.

- Carry out the heavy in a hangar closed.
- Remove all objects inadvertently left on board.
- Align the nose wheel.
- Empty the fuel tanks are empty.
- Check the oil level, hydraulic fluids and coolants are within the operational levels.
- Move the seat to its more forward position.
- Retract the flaps (0 °).
- Control surfaces in neutral.
- Level the aircraft by reference to the 15 ° of the back cabin (Figure 1).
- Place the scales under each wheel.
- Record the weight of each of the scales.
- Carry out a series of three heavy.



3. DETERMINATION OF CG.

INDICATIONS.

- Make a plumb line tangent to the leading edge of the right wing (Datum Line) approximately one meter from the root and make a mark on the floor.)
- Repeat on left wing.
- Connect the two marks with a straight line.
- Determine the distribution of weight on the wheels of the aircraft empty W_1, W_2, W_3 (table2).
- Determine the weight of the items (W_4, W_5, W_6, W_7, W_8).
- Measure the distance between the datum and the Center of Gravity of the w item.
- Complete the table and make sure the CG is between 269.2 mm and 471.1 mm posterior Datum. (Table1)

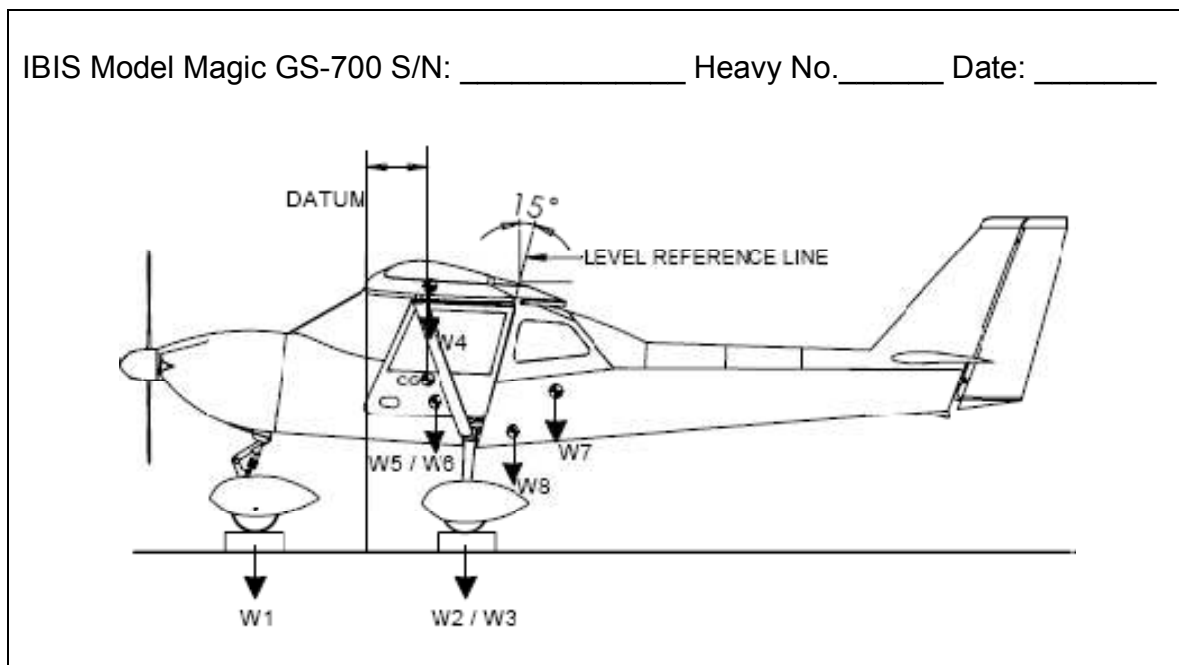


Figure1. Leveling Reference Magic GS-700.



ITEM	DESCRIPTION	WEIGHT (Kg)	ARM (mm)	MOMENT (Kg x mm)
W1	Nose Wheel			
W2	LH Main Wheel			
W3	RH Main Wheel			
W4	Wing Fuel Tanks			
W5	Pilot			
W6	Passenger			
W7	Baggage			
W8	Reservor Fuel Tank (2GL)			
TOTAL GROSS WEIGHT:				
			MOMENT:	

Empty weight $W_e = W1+W2+W3$

$C\ of\ G = \frac{Total\ Moment:}{Total\ Weight:}$
 $C\ of\ G =$

mm AFT from DATUM

This aircraft is between permitted range

<i>Wing Chord MAC</i>	269,2	20%
1338 mm		
	471,1	35%

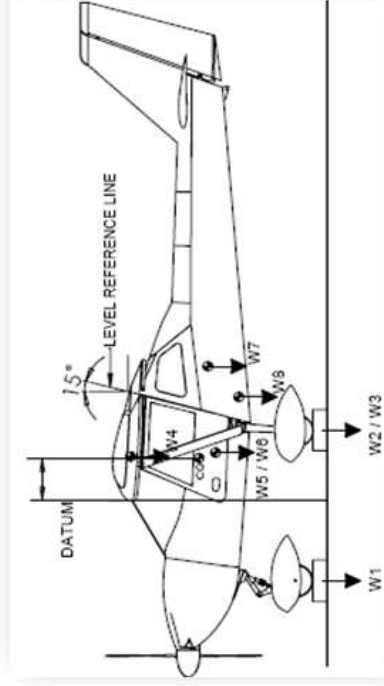
Table1. Table for calculating the weight and balance.

EXAMPLE

Weight and Balance Calculation Procedure

- 1 - Determine weight distribution on the wheels of the empty aircraft (W1, W2, y W3)
- 2 - Determine weight of the W items (W4, W5, W6, W7, y W8)
- 3 - Measure distance between DATUM and Center of Gravity of the W items (arm)
- 4 - Fill the table and make sure that CG is between 268mm and 468mm AFT of the DATUM

ITEM	DESCRIPTION	WEIGHT (Kg)	ARM (mm)	MOMENT (Kg x mm)
W1	Nose Wheel	106,00	-745,00	-78.970,00
W2	LH Main Wheel	121,00	715,00	86.515,00
W3	RH Main Wheel	124,00	710,00	88.040,00
W4	Wing Fuel Tanks	48,86	650,00	31.759,00
W5	Pilot	80,00	550,00	44.000,00
W6	Passenger	80,00	550,00	44.000,00
W7	Baggage	22,00	1.205,00	26.510,00
W8	Reservor Fuel Tank (2GL)	5,14	1.054,10	5.418,07
TOTAL GROSS WEIGHT:		587,00	MOMENT:	247.272,07



$$C \text{ of } G = \frac{\text{Total Moment: } 247.272,07}{\text{Total Weight: } 587,00} = C \text{ of } G =$$

421,25

mm AFT from DATUM

This aircraft is between permitted range

Wing Chord	267,6	20%
	421,25	31%
	468,3	35%