

Airplane Flight Manual - Supplement No. 1

Weight & Balance

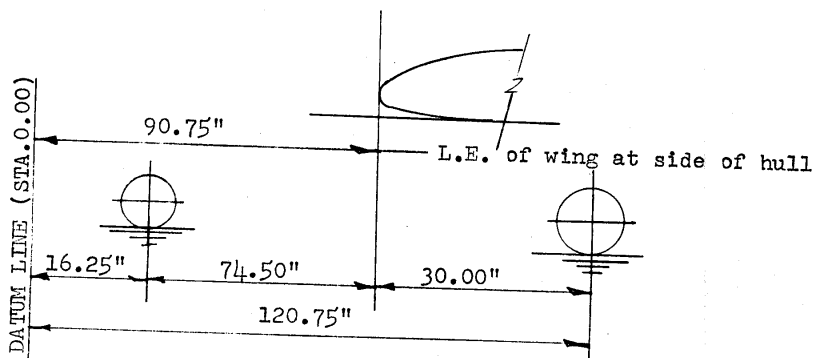
Sheet 1

Lake LA-4-200 2600 lb. Gross Weight (STC No. SA822 EA)

FAA Identification No. N1071L Airplane Serial No. 664

Weighing Instructions: Date 2-4-75

Weighing must be done in still air, preferably in a closed area. Airplane must be leveled longitudinally and laterally, using the top of the longerons below the rear windows as the leveling surfaces. The nose gear oleo strut must be fully extended, and the main gear struts extended 3".



Actual weight, including 5 gals. fuel & 8 qts. oil.

Left Wheel	<u>768</u> lbs. (X)
Right Wheel	<u>765</u> lbs. (Y)
Nose Wheel	<u>134</u> lbs. (Z)
Total	<u>1667</u> (T)

Actual weight C.G. = $\frac{16.25 \times (Z) + 120.75 \times (X+Y)}{1667} = \frac{187287}{1667}$
 = 112.34 inches aft of datum

	Weight	Arm	Moment
Actual Weight	1667	112.34	187287
Useful Load fuel	- 30	118.00	- 3540
Included oil	- 15	117.00	- 1755
Weight empty (includes items checked on equipment list.	<u>1622</u>	<u>112.19</u>	<u>181992.25</u>
Heater & Turbo added * see A/C Log bk	<u>77</u>	<u>88.09</u>	<u>6783</u>
New Location CG :	<u>1699</u>	<u>111.11</u>	<u>188,775</u>

Weight & Balance

Sheet 1.5

	Weight	Arm	Moment
8-08-06 Aircraft	1699	111.11	188,775
8-09-06 Add Starter (see log)	7.8	130	1,014
8-09-06 Remove starter	-17.0	130	-2,210
9-01-06 Install Dual Brakes	3.0	33	99
New Aircraft Empty Weight	1692.8	110.9	187,678
Aircraft Gross Weight	2600		
New Useful Load	907.2		

WEIGHT AND BALANCE / EQUIPMENT LIST REVISION

NAME: _____ DATE: 8-8-06
 AIRCRAFT TYPE: LA14 MODEL #: MZ 6222
 REGISTRATION #: N1071L SERIAL #: _____

OLD AIRCRAFT DATE:	WEIGHT:	ARM:	MOMENT:		
<u>8-8</u>	<u>1699</u>	<u>111.11</u>	<u>188775</u>		
EQUIPMENT LIST	IN	OUT	WEIGHT	ARM	MOMENT
1. : (P/N) MagnaFlite Starter	X		7.80 lbs.	<u>130</u>	<u>1014</u>
2. : <u>PRESTOLITE "</u>		X	<u>17.0</u>	<u>130</u>	<u>2210</u>
3. :					
4. :					

NEW AIRCRAFT EMPTY WEIGHT: 1689.8
 ARM: 111.0
 MOMENT: 187,679
 GROSS WEIGHT: 2,600
 USEFUL LOAD: 910.2

SIGNATURE: [Signature]

NOTE: Weight and balance must be completed and attached to pilots operating handbook.

AUTHORIZATION: NIP 46988408

ESI101

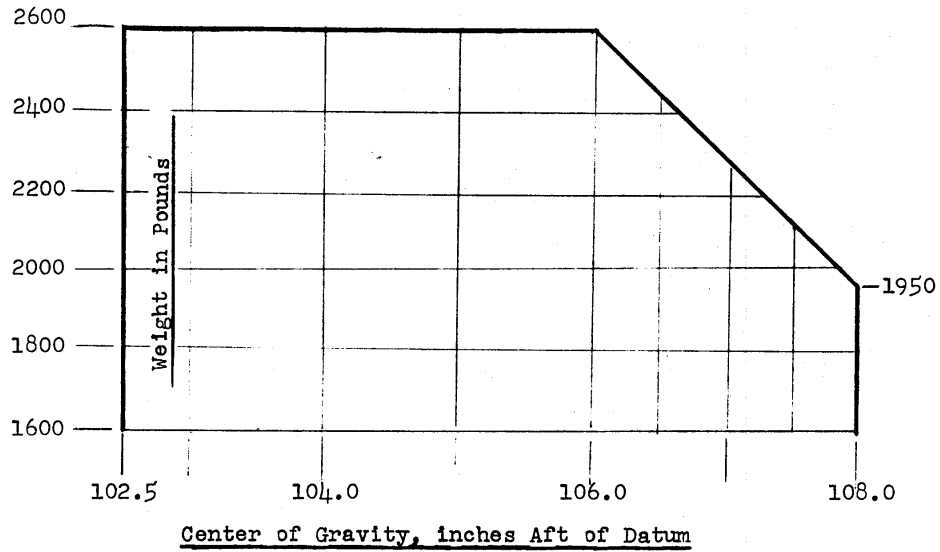
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Sheet 2

Approved Weight/C.G. Envelope



Useful Load Variables

<u>Item</u>	<u>Station</u>
Fuel (Minimum 15 gallons, maximum 40 gallons)	118.0
Oil (8 Quarts)	117.0
Pilot & Passenger (front seats)	63.0
Passengers (rear seats)	92.0
Baggage 200 lbs. maximum. (Center of Fwd. Portion)	118.0
(Concentrated loads must be limited to forward portion of compartment)	
Nose Ballast	25.0

*oil @ 7.5 #/gal
gas @ 6.0 #/gal*

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Sheet 3

Loading Schedule:

Any normal loading falls within the approved range except as noted below.

With pilot alone in airplane, nose ballast must be added according to the table below.

Ballast Note:

Removable ballast, when required by Weight and Balance limitations, must be placed in the bow compartment either with or in place of the mooring line. Ballast should consist of metal sheets or flat bars, bagged shot or bagged sand. Since the compartment is not water tight, canvas bags are recommended.

FUEL (Gallons)

		15	25	35	40
Pilot Weight (Pounds)	150	20	30	40	50
	170	10	20	30	40
	190	0	10	20	30
	210	0	0	10	20

NOSE BALLAST REQUIRED

Weight & Balance

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Sheet 4

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Sample Loadings

A. Forward C.G. at maximum weight

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	1622	112.19	181992
Front Seat Occupants	340	63.0	21420
Rear Seat Occupants	340	92.0	31300
Oil: 8 quarts	15	117.0	1755
Fuel: 40 gallons	240	118.0	28320
Baggage	43	118.0	5074
Totals	<u>2600</u>	<u>103.79</u>	<u>269861</u>

B. Aft. C.G. at maximum weight

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	1622	112.19	181992
Front Seat Occupants	340	63.0	21420
Rear Seat Occupants	183	92.0	16836
Oil: 8 quarts	15	117.0	1755
Fuel: 40 gallons	240	118.0	28320
Baggage	200	118.0	23600
Totals	<u>2600</u>	<u>105.1</u>	<u>273923</u>

C. Aft. C.G. at reduced weight

<u>Item</u>	<u>Weight</u>	<u>Arm</u>	<u>Moment</u>
Empty Weight	1622	112.19	181992
Pilot	170	63.0	10710
Oil: 8 quarts	15	117.0	1755
Fuel: 15 gallons	90	118.0	10620
Ballast	10	25.0	250
Totals	<u>1907</u>	<u>107.8</u>	<u>205327</u>

Weight & Balance Computed by: Carrolous W. Verrill, Jr.

Carrolous W. Verrill, Jr.