

Aircraft Weight and Balance Estimate

	Weight	Arm	Moment
Basic A/C Weight	2620	87.33	228824
Pilot	210	98	20580
Aux Fuel	402 (60 gal)	129	51858
Baggage	30	160.5	4815
Misc. Baggage	33	129	4257
Belly Tank	240	79.9	19176
Wing Tanks	737	94.8	69867
TKS	37	65.5	2423
Total	4,309 lbs.		401,800

Aircraft Center of Gravity = 93.2

C.G. Range = FS 86.5 to 94.5

Gross Weight on the Aircraft Data Tag = 3,800 lbs.

Jet Fuel 6.7 lbs. per gallon

1/18/05

WEIGHT AND BALANCE WORKSHEET

Customs & Border Protection

Aircraft/Vessel

6525057

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"N" Number: 86NW
Serial #: LIV-552
Builder: Bjorn Hermann

CG Range: (8 Inches)

FS 86.5 to FS 94.5

	A	B	C	D	E
	Wt. (lbs.)	Tare Wt.	Net Wt.	Mom. Arm	Mom. Wt.
Nose Gear	620	0	620	28.75	17825
Rt. Main	1030	25	1005	105.5	106027
Lt. Main	1020	25	995	105.5	104972
EMPTY CG			2620	87.33	228824

(with oil, other essential fluids & unusable fuel)

Weight also includes panel, seats, seatbelts, pressurization equipment and equipment necessary for flight. ARM's established using Lancair IV construction manual 33-31

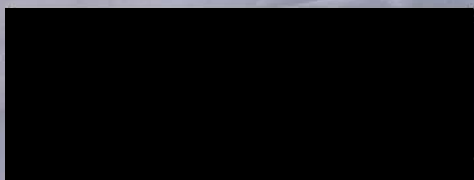
Sample Load

	C	D	E
	Net Wt.	Mom. Arm	Mom. Wt.
Aircraft	2620	87.33	228824
Pilot	170	98	16660
Copilot	0	98	0
Pass. 3	0	129	0
Sump Tank	240	79.9	19376
Wing Tank	737	243	181071
Luggage	0		

TOTALS

3767

Fuel Wt. - Avg Gas 6 lbs. / Gallon
Jet Jet 6.7 lbs. / Gallon



WEIGHT AND BALANCE WORKSHEET

1/18/05

"N" Number: 86NW
Serial #: LIV-552
Builder: Bjorn Hermann

CG Range: (8 Inches)
FS 86.5 to FS 94.5

	A	B	C	D	E
	Wt. (lb Tare	Wt.	Net Wt.	Mom. Arm	Mom. Wt.
Nose Gear	620	0	620	28.75	17825
Rt. Main	1030	25	1005	105.5	106027
Lt. Main	1020	25	995	105.5	104972
EMPTY CG			2620	87.33	228824

(with oil, other essential fluids & unusable fuel)

Weight also includes panel, seats, seatbelts, pressurization equipment and equipment necessary for flight. Refer to the applicable Boeing Learjet IV construction manual 33-34

Sample Load

	C	D	E
	Net Wt.	Mom. Ar	Mom. Wt.
Aircraft	2620	87.33	228824
Pilot	170	98	16660
Copilot	0	98	0
Pass. 3	0	129	0
Sump	240	79.9	19176
Wing T	737	94.8	69867.6
Lugga	0	140	0

$240 \div 6.7 = 35.82$ vs. 90.2

TOTALS

3767 CG 88.8 334527

Fuel Wt. Av Gas 6 lbs. / Gallon
Jet Jet 6.7 lbs. / Gallon

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63 - 914 - 8803
N89NW Weight and Balance Calculations

Here is the information calculated from actual measurements taken from the aircraft in relation to reference fuel gross weight as shown in the maintenance manual (Chapter 35, page 3-2, 3-3). Note that the CG is located at the top of the moment as shown in the manual. CG range is 106.5-112. Aircraft weighed with essential fluids and zero fuel. (Other weight 3950 lbs.)

New zero as actually measured are as follows:

- Note Gear ⁴⁹ 127.5
- Main Gear 100.4
- Center fuel tank (35 gals) 105.8
- Wing fuel tank (56 gals each) 118.5
- Pilot Seat 149.5
- Rear Seat 160.5
- Pass Bag 65.5
- TKS (4 gals @ 9.2 lbs/gal)

	Weight	Arm	Moment	CG
Empty Aircraft	1870	127.5	238425	
Main		49	31850	
None	650			
Totals	2520		270275	107.25
Gear up (Data taken from factory sample)			1088.0	107.68
(1) Pass / Min Fuel				
Pilot	170	118.5		
*METO fuel (center fuel tank 35 gals)	234.5	100.4		
*METO fuel (wing fuel tank 27.5 gals)	184.25	115.8		
Totals	3108.75		335309	107.86
(2) Pilot / Full Fuel				
Pilot	170	118.5		
Fuel (112 gals)	250.4	115.8		
Center fuel tank (35 gals)	234.5	100.4		
Totals	3674.9		400770	109.6
(3) Additions				
Co-pilot	170	118.5		
Rear Seat	340	149.5		
Baggage	60	160.5		
TKS	36.8	65.5		
Max Totals	4281.7		485784	113.46

Aircraft is 331.7 lbs. over gross. 331.7 lbs. must be removed by baggage, passenger or fuel removal.

* METO fuel = Horsepower = 250 = 62.5 gals.
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Figure weight and balance carefully before every flight.

Signature: _____

Date: _____