577.7

WEIGHT AND BALANCE REVISION

MAKE: Cessna
MODEL: 150 L
SERIAL# : 15075156
REGISTRATION: N10945

EQUIPMENT CHANGE

Computing New C.G.			
Item, Make and Model *	**Weight**	**Arm**	**Moment**
Previous information from W&B dated	1101.00	32.70	36002.70
EQUIPMENT ADDED			
Blind Encoder & wiring harness	0.50	15.00	7.50
NEW TOTALS	1101.50	32.69	36010.20

* ITEM NUMBERS WHEN LISTED IN THE PERTINENT AIRCRAFT SPECIFICATION MAY BE USED IN LIEU OF "ITEM, MAKE, AND MODEL"

Gross Weight: 1600
New empty weight: 1101.50
New Center of gravity: 32.69
Moment: 36010.20
Useful load: 498.5

Prepared By Greg R. Edwards **Date** 10/19/07

CESSNA AIRCRAFT COMPANY
WICHITA, KANSAS

MODEL 150L

1974

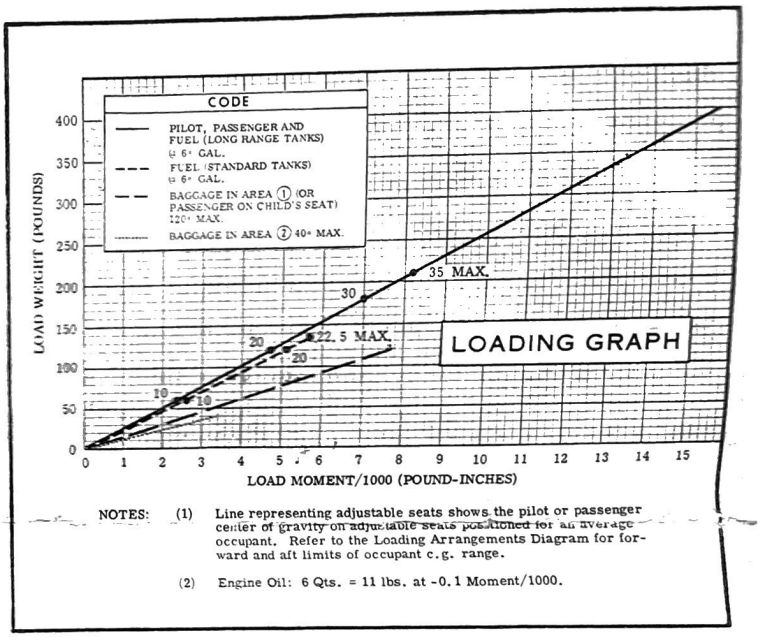
Loading and Center of Gravity Charts

IT IS THE RESPONSIBILITY OF THE PILOT AND AIRCRAFT OWNER TO ENSURE THAT THE AIRCRAFT IS LOADED PROPERLY.

When computing aircraft loading requirements, refer to the Weight and Balance and Installed Equipment Data sheet in the aircraft file for the licensed empty weight, arm and moment of the aircraft as delivered from the factory. (If alterations have been made to the aircraft, refer to Aircraft Records for the latest empty weight, arm and moment.) The aircraft weight and blance may then be determined using the Loading Graph and Center of Gravity Moment Envelope as indicated in the Samply Loading Problem below.

SAMPLE LOADING PROBLEM	SAMPLE AIRPLANE Weight (lbs.)	SAMPLE AIRPLANE Moment (lb.-ins. /1000)	YOUR AIRPLANE Weight (lbs.)	YOUR AIRPLANE Moment (lb.-ins. /1000)
1. Licensed Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel)	1089	36.0		
2. Oil (6 Qts. - The weight of full oil may be used for all calculations. 6 Qts = 11 Lbs. at -0.1 Moment/1000)	11	-0.1	11	-0.1
3. Usable Fuel (At 6 Lbs./Gal.)				
Standard Tanks (22.5 Gal. Maximum)	135	5.7		
Long Range Tanks (35 Gal. Maximum)				
4. Pilot and Passenger (Sta. 33 to 41)	340	13.3		
5. Baggage - Area 1 (or Passenger on Child's Seat) (Sta. 50 to 76, 120 Lbs. Max.)	25	1.6		
6. Baggage - Area 2 (Sta. 76 to 94, 40 Lbs. Max.)				
7. TOTAL WEIGHT AND MOMENT	1600	56.5		

8. Locate this point (1600 at 56.5) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.



NOTES: (1) Line representing adjustable seats shows the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements Diagram for forward and aft limits of occupant c.g. range.

(2) Engine Oil: 6 Qts. = 11 lbs. at -0.1 Moment/1000.

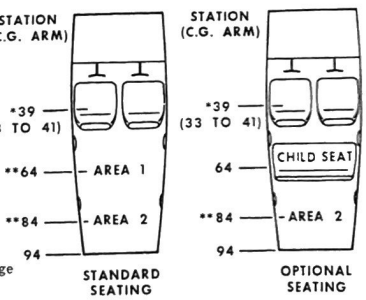
LOADING ARRANGEMENTS

*Pilot or passenger center of gravity on adjustable seats positioned for average occupant. Numbers in parentheses indicate forward and aft limits of occupant center of gravity range.

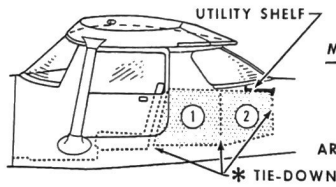
**Arms measured to the center of the areas shown.

NOTE

The aft baggage wall (approximate station 94) can be used as a convenient interior reference point for determining the location of baggage area fuselage stations.



BAGGAGE LOADING AND TIE-DOWN

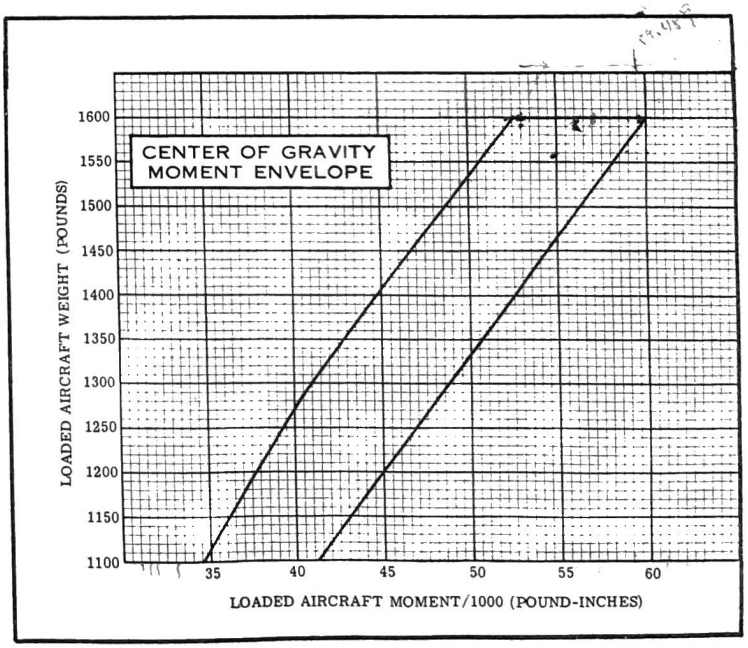


BAGGAGE AREA MAXIMUM ALLOWABLE LOADS

AREA (1) = 120 POUNDS
AREA (2) = 40 POUNDS
AREAS (1) + (2) = 120 POUNDS

* A tie-down net is provided to secure baggage in the baggage area. The net attaches to six tie-down rings. Two rings are located on the floor just aft of the seat backs and one ring is located two inches above the floor on each cabin wall at the aft end of area (1). Two additional rings are located at the top, aft end of area (2). At least four rings should be used to restrain the maximum baggage load of 120#.

If the airplane is equipped with an optional utility shelf, it should be removed prior to loading and tying down large baggage items. (Slide the tab of the locking clips on each end of the shelf to disengage the shelf from the aircraft structure.) After baggage is loaded and secured, either stow the shelf or, if space permits, install it for storing small articles.

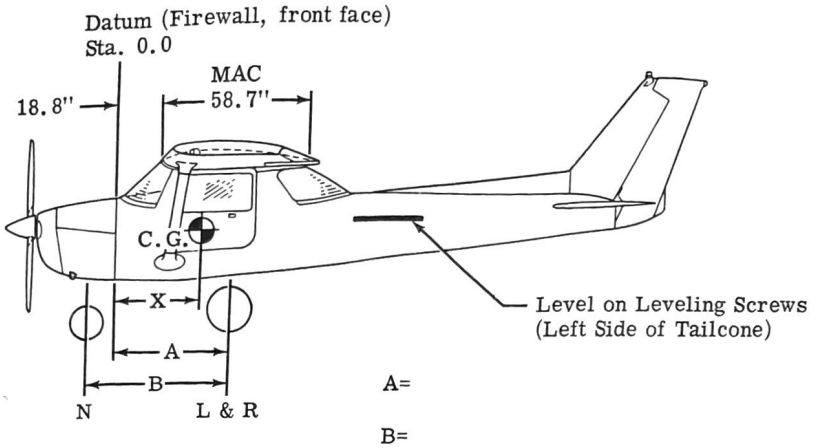


Form Issue Date: 11 June 1973

Weighing Procedure

MODEL 150L

1974



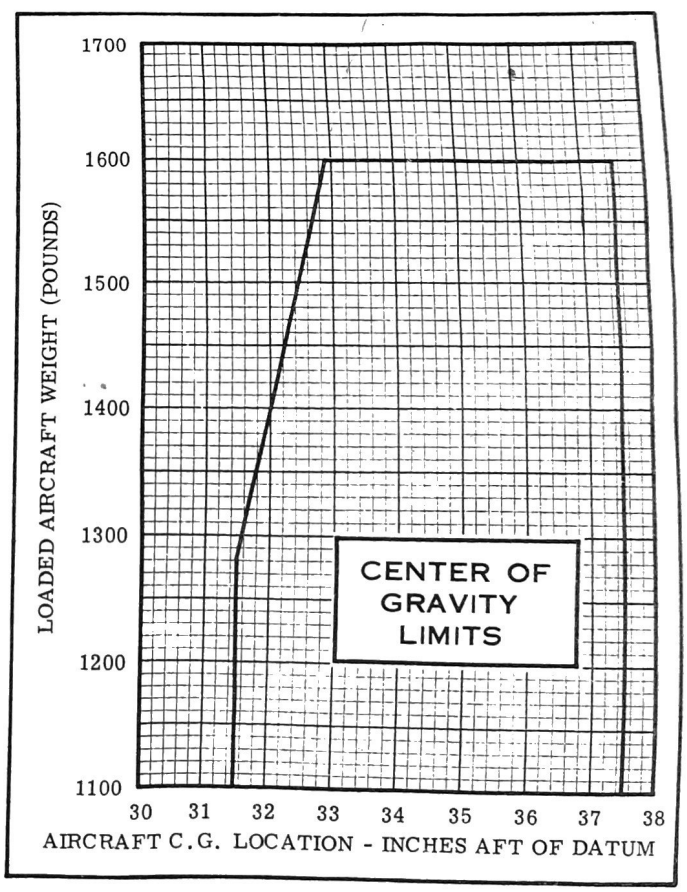
A=

B=

Scale Position	Scale Reading	Tare	Symbol	Net Weight
Left Wheel			L	
Right Wheel			R	
Nose Wheel			N	
Aircraft Empty Weight (As Weighed)			W	

$$X = ARM = (A) - \frac{(N) \times (B)}{W} \; ; \; X = (\quad) - \frac{(\quad) \times (\quad)}{(\quad)} = (\quad) \; IN.$$

1. Preparation:
   a. Inflate tires to recommended operating pressures.
   b. Remove each wing tank drain plug to remove all fuel.
   c. Remove oil sump drain plug to drain all oil.
   d. When individual front seats are installed, place seats in most forward position with seat backs in most nearly vertical position.
   e. Put flaps in fully retracted position.
   f. Place all control surfaces in neutral position.
2. Leveling:
   a. Place scales under each wheel (500# min. capacity for scales).
   b. Deflate nose tire to center bubble on level (see Diagram).
3. Weighing:
   a. With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.
4. Measuring:
   a. Obtain measurement "A" by measuring horizontallly (along the airplane center line) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
   b. Obtain measurement "B" by measuring horizontally and parallel to the airplane center line, from center of nose wheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.
5. Completing the Form:
   a. Using weights from (3) and measurements from (4) the airplane weight and C.G. can be determined.
   b. Obtain licensed empty weight by adding weight and moment of unusable fuel to airplane empty weight and moment. There are 3.5 gallons of unusable fuel (weight = 21#, moment = 840 lb ins.) in airplanes with the standard 26 gallon capacity fuel system and 3.0 gallons of unusable fuel (weight = 18#, moment = 720 lb ins.) in aircraft with the optional 38 gallon capacity fuel system.



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