

PREPARED	PIPER AIRCRAFT CORP. DEVELOPMENT CENTER, VERO BEACH, FLA.	Weight & Balance Data Model PA-28-180
CHECKED		
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C. G. RANGE AND WEIGHT INSTRUCTIONS

1. Add the weight of all items to be loaded to the licensed empty weight.
2. Use the loading graph to determine the moment of all items to be carried in the airplane.
3. Add the moment of all items to be loaded to the licensed empty weight moment.
4. Divide the total moment by the total weight to determine the C. G. location.
5. By using the figures of Item 1 and Item 4, locate a point on the C. G. range and weight graph. If the point falls within the C. G. envelope, the loading meets the weight and balance requirements.

SAMPLE LOADING PROBLEM (Normal Category)

	Weight (lbs.)	Arm Aft Datum (Inches)	Moment (In.-Lbs.)
Licensed Empty Weight	1392.2	86.6	120622
Oil (8 Quarts)	15	32.5	488
Pilot and Front Passenger	340	85.5	29070
Passengers, Aft * (Rear Seat)	340	118.1	40154
^{45 gallons} Fuel (50 Ga. Maximum)	270	95.0	25650
Baggage *	42.8	142.8	6112
Total Loaded Airplane	2400	92.5	222096

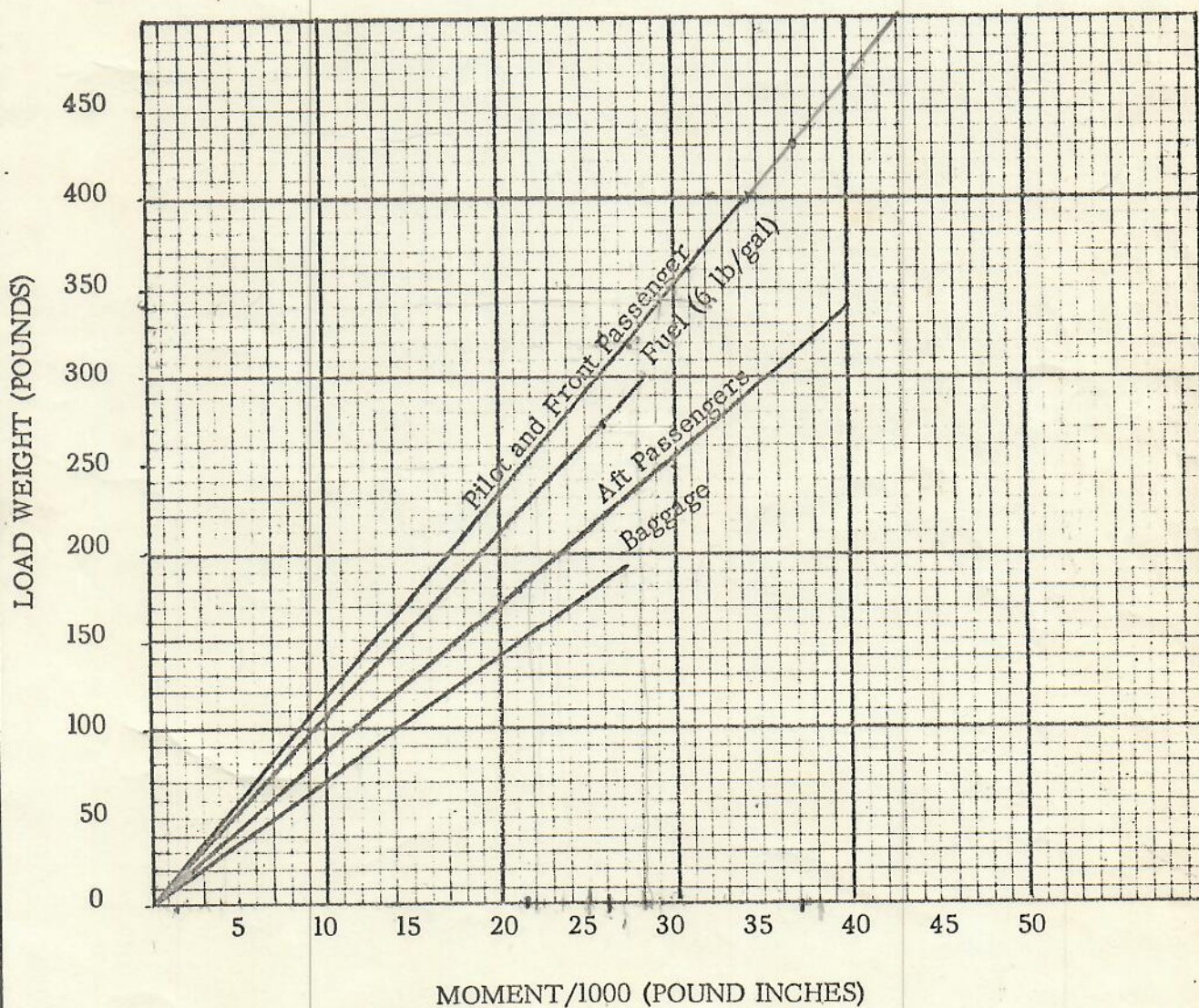
The center of gravity (C. G.) of this sample loading problem is at 92.5 inches aft of the datum line. Locate this point (92.5) on the C. G. range and weight graph. Since this point falls within the weight - C. G. envelope, this loading meets the weight and balance requirements.

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

* Utility Category Operation - No baggage or aft passengers allowed.

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LOADING GRAPH



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C. G. RANGE AND WEIGHT

