

## SAMPLE LOADING PROBLEM

ITEM DESCRIPTION	WEIGHT AND MOMENT TABULATION			
	SAMPLE AIRPLANE		YOUR AIRPLANE	
	Weight (lbs)	Moment (lb-ins/1000)	Weight (lbs)	Moment (lb-ins/1000)
1 - Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)	1642	62.6		
2 - Usable Fuel (At 6 Lbs./Gal.)				
- Standard Fuel - 53 Gallons Maximum				
- Reduced Fuel - 35 Gallons	210	10.1		
3 - Pilot and Front Passenger (FS 34 to 46)	340	12.6		
4 - Rear Passengers (FS 73)	310	22.6		
5 - *Baggage "A" (FS 82 to 108) 120 Pounds Maximum	56	5.3		
6 - *Baggage "B" (FS 108 to 142) 50 Pounds Maximum				
<b>7 - RAMP WEIGHT AND MOMENT</b>	<b>2558</b>	<b>113.2</b>		
8 - Fuel allowance for engine start, taxi and runup	-8.0	-0.4		
<b>9 - TAKEOFF WEIGHT AND MOMENT</b> (Subtract Step 8 from Step 7)	<b>2550</b>	<b>112.8</b>		

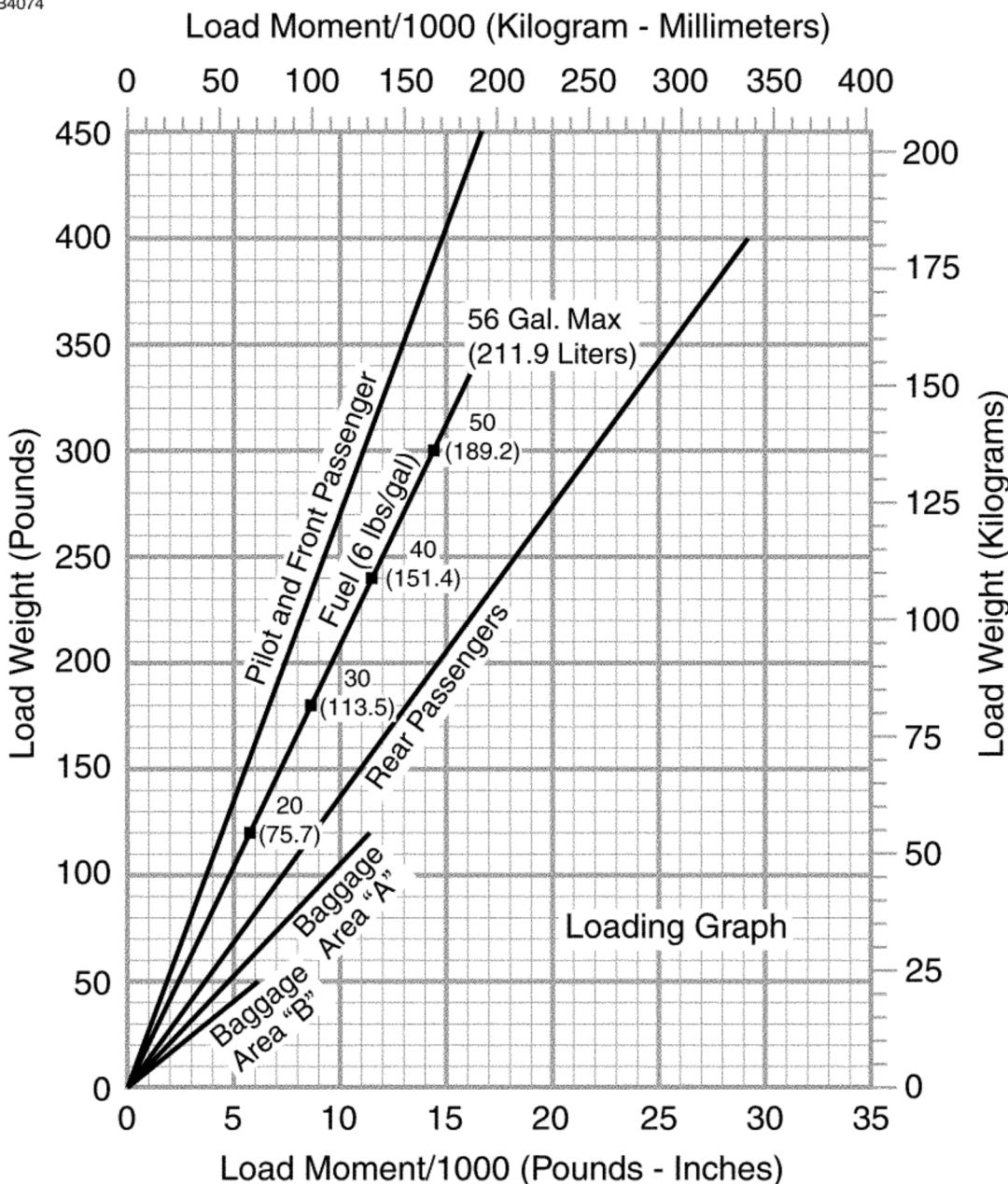
10 - Locate this point (2550 at 112.8) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.

\*The maximum allowable combined weight capacity for baggage in areas "A" and "B" is 120 pounds.

Figure 6-3 (Sheet 1 of 2)

## LOADING GRAPH

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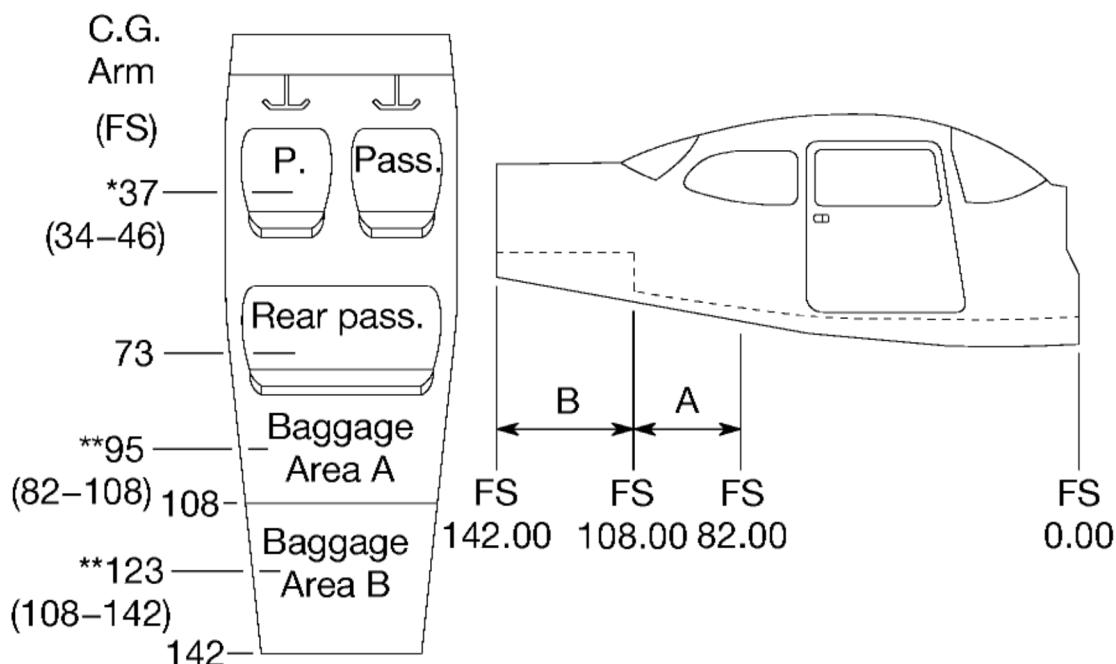
### NOTE

Line representing adjustable seats shows the pilot and front seat passenger center of gravity on adjustable seats positioned for average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant C.G. range.

Figure 6-4

## LOADING ARRANGEMENTS

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\*Pilot and front seat 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.

\*\*Arm measured to the center of the areas shown.

### NOTE

- The usable fuel C.G. arm is located at FS 48.00.
- The aft baggage wall (approximate FS 108.00) or aft baggage wall (approximate FS 142.00) can be used as a convenient interior reference point for determining the location of baggage area fuselage stations.
- To achieve an airplane loading within the utility category, it may be necessary to remove the rear passenger seat assembly from the airplane. Refer to Figure 6-9 for applicable weight and arm.

Figure 6-5

## CENTER OF GRAVITY MOMENT ENVELOPE

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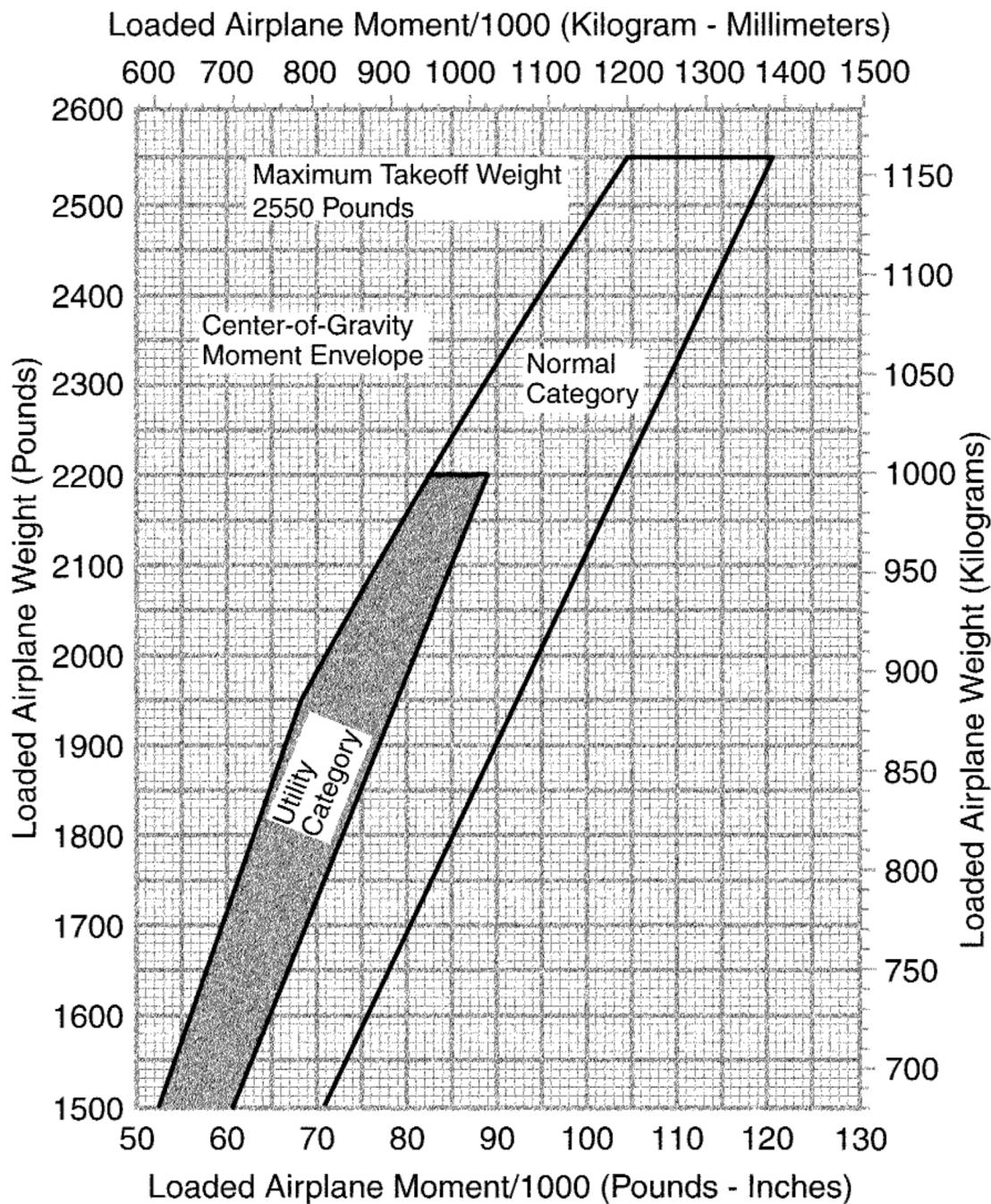


Figure 6-7