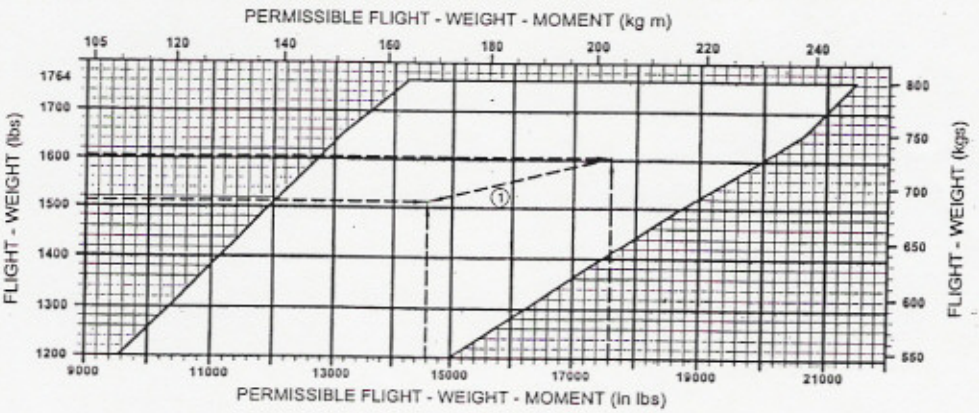
Figure 6.6: Calculation of Loading Condition

Calculation of the Load Limits	*DA 20 (Example)*		Your DA 20	
	Weight [lbs] (Weight [kg])	Moment [in.lbs] ([kgm])	Weight [lbs] (Weight [kg])	Moment [in.lbs] ([kgm])
1. Empty Weight (use the data for your airplane recorded in the equipment list, including unusable fuel and lubricant).	1153 (523)	12562 (144.740)		
2. Pilot and Passenger: Lever Arm: 0.143 m (5.63 in)	359 (163)	2021 (23.286)		
3. Baggage: Max. Wt. 44lbs (20kg) Lever Arm: 0.824 m (32.44 in)	-- (--)	-- (--)		
4. Baggage Compartment Extension: Max. Wt. 44lbs (20kg) Lever Arm: 1.575 m (62.0 in)	-- (--)	-- (--)		
5. *Combined Baggage Max. Wt. 44lbs (20kg) Lever Arm: 1.20 m (47.22 in)	-- (--)	-- (--)		
6. Total Weight and Total Moment with empty fuel tank (sum of 1. - 3.)	**1512 (686)**	**14583 (168.026)**		
7. Usable Fuel Load (6.01 lbs. per US gal./0.72 kg per liter) Lever Arm (32.44 in) (0.824 m)	93 (42)	3017 (34.762)		
8. Total Weight and Total Moment, taking fuel into account (sum of 6. and 7.)	**1605 (728)**	**17600 (202.788)**		
9. Find the values for the total weight (1512 lbs. and 1605 lbs.) and the total moment (14583 in lbs. and 17600 in.lbs.) in the center of gravity diagram. Since they are within the limitation range, the loading is permissible.				

* Combined Baggage: For convenience of calculation use this line if baggage is to be located in both the baggage compartment and the baggage extension. The combined total of the baggage must not exceed 44 lbs (20 kg).

Figure 6.7: Permissible Center of Gravity Range and permissible Flight-Weight-Moment



Maximum Ramp Weight	: 803 kg (1770 lbs)
Maximum Take-off Weight	: 800 kg (1764 lbs)
Maximum Landing Weight	: 800 kg (1764 lbs)
Empty Weight	: See Chapter 6
Maximum Weight in Baggage Compartment	: 44 lbs (20 kg) only if restraining devices available