



SECTION IV OPERATING LIMITATIONS

OPERATIONS AUTHORIZED

Your Cessna with standard equipment, as certificated under FAA Type Certificate No. 3A10, is approved for day and night operation under VFR or IFR conditions.

MANEUVERS-NORMAL CATEGORY

The airplane exceeds the requirements of the Federal Aviation Regulations, Part 3, set forth by the United States Government for airworthiness. Spins and aerobatic maneuvers are not permitted in normal category airplanes in compliance with these regulations. In connection with the foregoing, the following gross weight and flight load factors apply:

Maximum Takeoff Weight	5200 lbs
Maximum Landing Weight	5200 lbs
*Flight Load Factor	
Flaps UP	+3.8G
	-1.52G
Flaps DOWN	+2.0G

*The design load factors are 150% of the above and in all cases the structure exceeds design loads.

Your airplane must be operated in accordance with all FAA approved markings, placards, and checklists in the airplane. If there is any information in this section that contradicts the FAA approved markings, placards, and checklists it is to be disregarded.

AIRSPEED LIMITATIONS (CAS)

Maximum Structural Cruising Speed	
Level Flight or Climb	210 MPH
Maximum Speed	
Flaps Extended 15°	180 MPH
Flaps Extended 15° - 35°	160 MPH
Gear Extended	160 MPH

*Maximum Maneuvering Speed 170 MPH

*The maximum speed at which you can use abrupt control travel.

AIRSPEED INDICATOR INSTRUMENT MARKINGS

The following is a list of the certificated calibrated airspeed (CAS) limitations for the airplane.

Never Exceed (glide or dive, smooth air)	. . . . .	257 MPH (red line)
Caution Range	. . . . .	210-257 MPH (yellow arc)
Normal Operating Range	. . . . .	85-210 MPH (green arc)
Flap Operating Range (0° - 35°)	. . . . .	75-160 MPH (white arc)
Minimum Control Speed	. . . . .	85 MPH (red line)
Best Single Engine Rate of Climb	. . . . .	119 MPH (blue line)

ENGINE OPERATION LIMITATIONS

Maximum Power and Speed 260 BHP at 2625 RPM
(for all operations)

ENGINE INSTRUMENT MARKINGS

OIL TEMPERATURE GAGES

Normal Operating Range	. . . . .	80° to 225° F (green arc)
Maximum Temperature	. . . . .	225° F (red line)

OIL PRESSURE GAGES

Idling Pressure	. . . . .	10 PSI (red line)
Normal Operating Range	. . . . .	30 to 60 PSI (green arc)
Maximum Pressure	. . . . .	100 PSI (red line)

CYLINDER HEAD TEMPERATURE

Normal Operating Range	. . . . .	200° to 460° F (green arc)
Maximum Temperature	460° F (red line)

MANIFOLD PRESSURE

Normal Operating Range	15 to 24 in. Hg. (green arc)
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TACHOMETER

Normal Operating Range . . . 2100 to 2450 RPM (green arc)
Maximum Engine Rated Speed . . . 2625 RPM (red line)

FUEL FLOW GAGE

Normal Operating Range 0 to 23 GPH (green arc)
Minimum and Maximum Fuel Flows . . . 0 to 23 GPH (red line)
2.5 and 18.5 PSI (red line)

WING LOCKERS

The wing lockers are intended primarily for low density items such as luggage and briefcases. The floor of the wing lockers in particular is primary structure. Therefore, care should be exercised during loading and unloading to prevent damage. When loading high density objects, insure that adequate protection is available to prevent damage to any airplane primary structure.

WEIGHT AND BALANCE

The following information will enable you to operate your Cessna within the prescribed weight and center of gravity limitations. To figure the weight and balance for your particular airplane, use figures 4-1, 4-2, and 4-3 as follows.

Take the licensed Empty Weight and Moment/1000 from the Weight and Balance Data sheet, plus any changes noted on forms FAA-337, carried in your airplane, and write them down in the proper columns of figure 4-1. Using figure 4-2, determine the moment/1000 of each item to be carried. Total the weights and moments/1000 and use figure 4-3 to determine whether the point falls within the envelope and if the loading is acceptable.

SAMPLE PROBLEM	Sample Airplane		Your Airplane	
	Weight (lbs.)	Moment (lb. -ins. /1000)	Weight (lbs.)	Moment (lb. -ins. /1000)
1. Licensed Empty Weight (Sample Airplane)	3420.0	120.5		
2. Oil-W/Opt. Oil Filter *(26 Qts. x 1.875 lb./qt.) ..	49.0	-0.2	49.0	-0.2
3. Pilot & Front Passenger .	340.0	12.6		
4. Rear Passengers (Standard Seating)	510.0	36.2		
5. Fuel - (Main Tanks) (100 Gals. x 6 lbs./gal.) .	600.0	21.0		
6. Baggage (Sta. 96.0)	200.0	19.2		
(Sta. 124.0)				
(Wing Lockers) ..				
7. Total Airplane Weight (Loaded)	5119.0	209.7		
8. Locate this point (5119.0 at 209.7) on figure 4-3 and since this point falls within the envelope the loading is acceptable.				
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> *Note: Normally full oil may be assumed for all flights. </div>				

Figure 4-1

B10L

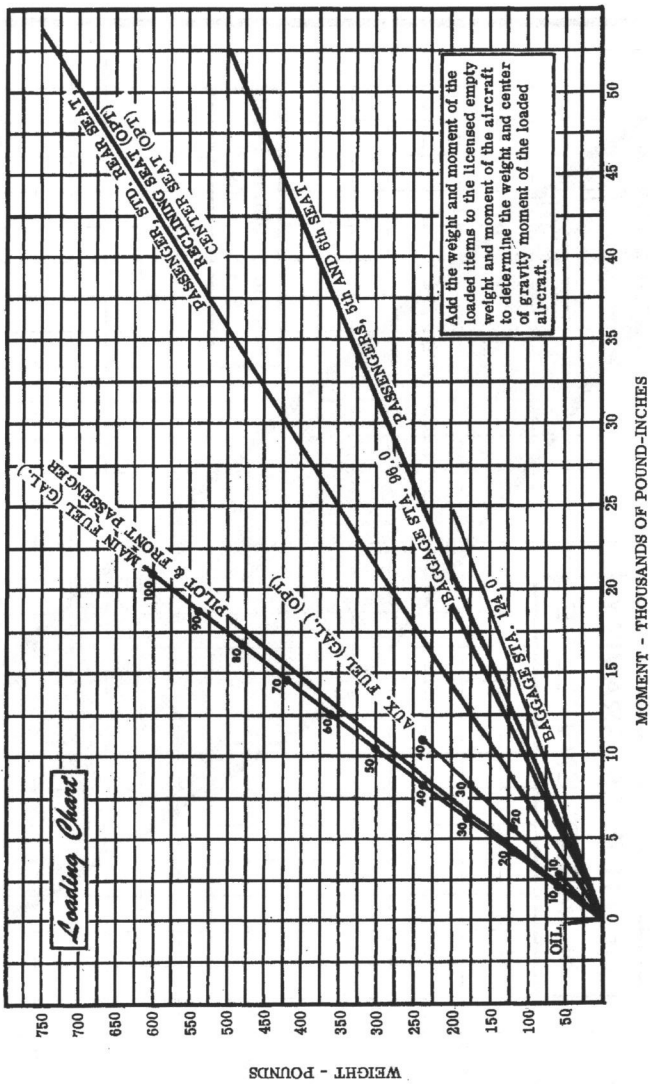


Figure 4-2

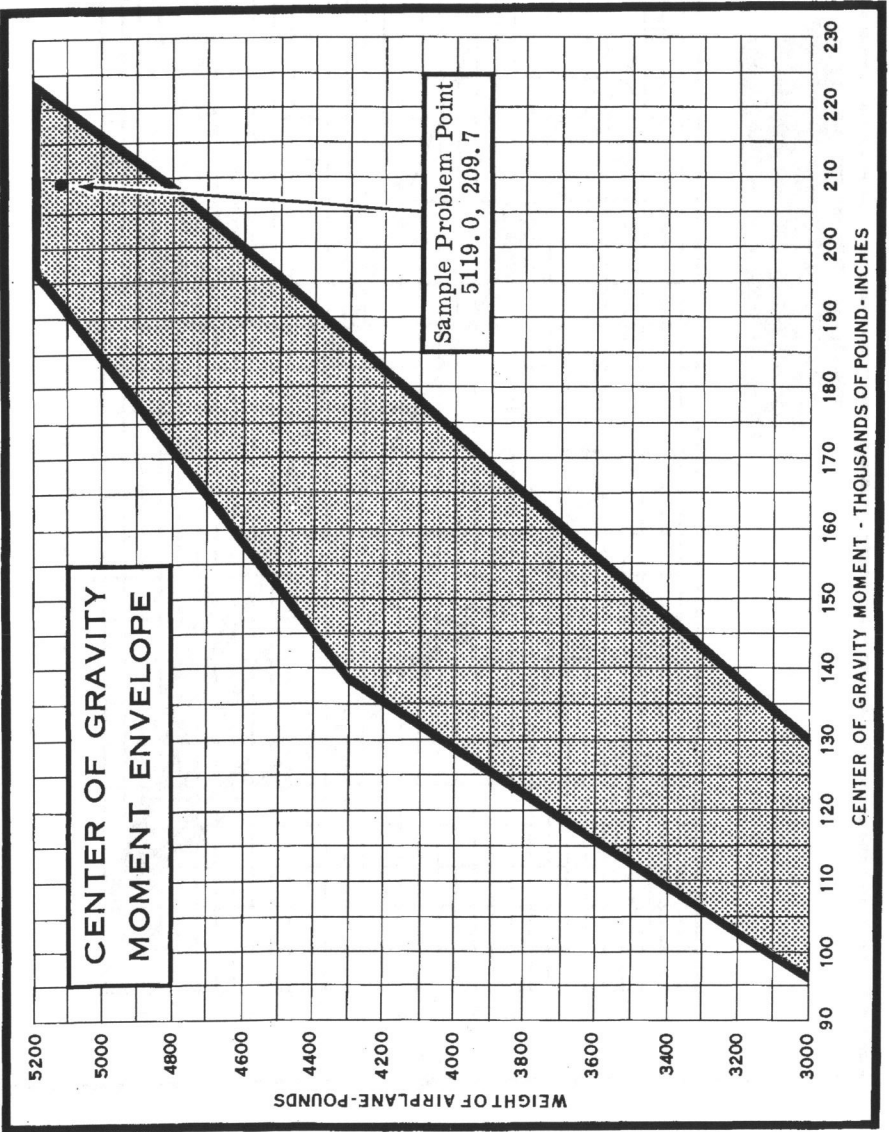


Figure 4-3