



Rental Quiz – C172M C-GDXE

1. What is the total fuel capacity of the C172M? What is the useable fuel capacity in each tank? Total useable capacity?
2. How many fuel drains are installed on the C172M?
3. What is the normal static RPM range that should be observed during a full-power ground run?
4. What is the maximum allowable RPM for takeoff and continuous operations?
5. What is the maximum allowable takeoff weight of the C172M?
6. At a pressure altitude of 4000', what is the **most appropriate** cruise power setting?
7. How far can the C172M glide from 3000'? Assume zero wind condition and best glide configuration.
8. In a forward slip with full rudder deflection and a weight of 1950 lbs, the pilot should not exceed:

9. List the following speeds for the C172M along with their definitions.

V_A – 2300 lbs

V_A – 1900 lbs

V_A – 1600 lbs

V_X

V_Y

V_G

V_{FE}

V_S

V_{SO}

V_{NO}

V_{NE}

Maximum Demonstrated Crosswind Component

Approach Speed – Flaps Up

Approach Speed – Flaps 40°

10. What is the engine type and rated horsepower (at full throttle) of the engine in the C172M?

11. If a fuel gauge on the C172M read “E”, approximately how much fuel would remain in the tank?

12. When fueling a C172M from 20 gallons to 38 gallons, a pilot would request _____ litres from the fueling attendant:

13. Assuming a reserve of 45 minutes, and using a power setting of 65%, what is the expected range and endurance at 4000' for the C172M is _____ nautical miles and _____ hours/minutes.

14. What is the anticipated engine RPM, true airspeed, and fuel consumption for the power setting mentioned in the previous question? Assume a pressure altitude of 4000'.

15. What do you feel your personal 90° crosswind capabilities are:

Fill in the blanks. Refer to Section 7 of the POH.

16. The aircraft is fitted with _____ ailerons and _____ flaps.
17. The ailerons are constructed of a forward spar containing a _____, _____ ribs, and _____ joined together _____.
18. The top of the rudder incorporates a _____-edge _____ which contains a _____.
19. The wing flaps are of the _____ - _____ type, and are _____ operated by a motor located in the _____.
20. The landing gear is of the _____ type, with a _____, two _____, and _____. Shock absorption is provided by the _____ - _____ main landing gear struts and the _____ nose gear shock strut.
21. The following instruments monitor engine operation: _____, _____, _____.
22. The oil pressure gauge is operated by _____. A direct oil pressure line from the _____ delivers oil at engine operating pressure to the gauge. The oil temperature gauge is operated by an _____ type sensor which receives power from the airplane _____ system.
23. The tachometer indicates both _____ and P _____ speed.
24. Fuel quantity is measured by two _____ - _____ fuel quantity transmitters and indicated by two _____ - _____ fuel quantity indicators.
25. Some of the symptoms of impending brake failure are:
 - a) _____
 - b) _____
 - c) _____
 - d) _____
 - e) _____

If, during taxi or landing roll, braking action decreases, _____ on the pedals and then _____ with _____.

26. Electrical energy is supplied by a _____ direct current system powered by an engine-driven _____ alternator.
27. The battery is a _____, _____ and is located on the left side of the firewall.
28. The right side of the master switch controls _____; the left side of the master switch controls the _____.
29. The ammeter indicates the _____, in amperes, from the alternator to the battery or from the battery to the electrical system. When the engine is running and the master switch is ON, the ammeter shows the _____ to the battery. If electrical load exceeds the alternator output or the alternator isn't working, the ammeter shows battery _____ rate.
30. In the event of an over-voltage condition, the _____ automatically removes the alternator field current and shuts down the _____. The red warning light will then turn on, indicating to the pilot that the alternator is not operating and the _____ is supplying all electrical power.
31. Navigation lights are located on the _____. Strobe lights are located on the _____. A flashing beacon is located on top of the _____. A single landing light is installed in the _____.
32. The pitot-static system supplies _____ pressure to the airspeed indicator and _____ pressure to the airspeed indicator, _____, and _____. The system is composed of a heated pitot tube located on the lower surface of the _____ and an external static port on the lower _____ of the fuselage.
33. An _____ vacuum system provides the suction necessary to operate the _____ and _____.
34. The airplane is equipped with a _____ stall warning system consisting of an inlet on the leading edge of the _____. As the airplane approaches the stall, a low pressure condition is created over the _____ of the wings. This low pressure creates a differential pressure (_____) in the stall warning system which draws air through the _____, resulting in an audible warning at _____ knots above stall in all flight conditions.

Complete the following Weight & Balance scenario:

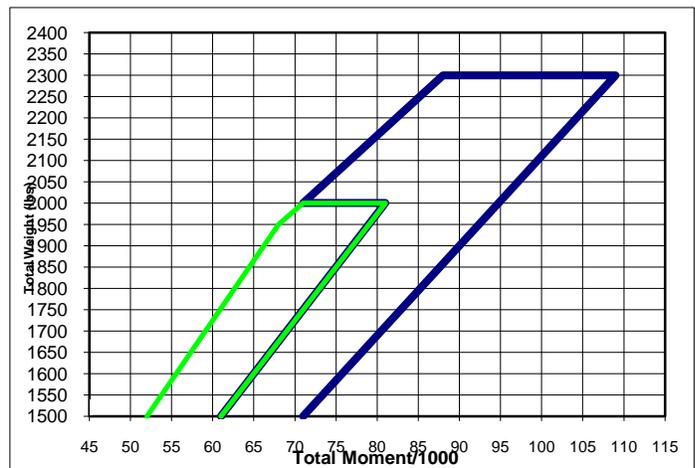
Pilot: 170 lbs.
 Front Passenger: 130 lbs.
 Rear passengers: 360 lbs.
 Baggage 115 lb
 Fuel 15 U. S. gal.

C-GDXE Weight & Balance

Date: N/A

Flight # N/A

| C172 Loading Form | | Weight Lbs. | Arm In. | Moment Lb-In. |
|--|---------|----------------|------------|------------------|
| A/C Empty Weight | | 1432.67 | 39.47 | 56554.79 |
| Pilot & Front Px | | | 37.0 | |
| Rear Px | | | 73.0 | |
| Bag 1 (120 lb max) | Max 120 | | 95.0 | |
| Bag 2 (50 lb max) | Total | | 123.0 | |
| Zero Fuel Weight | | | | |
| Fuel ____X 6 lbs/us gal | | | 47.8 | |
| Take-Off Weight & Moment | | | | |
| Less: Estimated fuel burn in Lbs. | | | 47.8 | |
| Landing Weight & Moment | | | | |



35. Is the aircraft overweight?

36. Is the aircraft within limits? If not, why not?

37. Describe some ways you could bring the aircraft back into acceptable limits.