

RFC Dallas, Inc.
AIRCRAFT QUESTIONNAIRE
Version 3.0 (03/31/2024)

Pilot Name: _____ Date: _____

Aircraft Registration#: _____ Model: _____ Serial#: _____

Answer the following questions by using the information contained in this aircraft's Airplane Flight Manual, the current Weight and Balance supplement, placards affixed to the aircraft, the RFC Cherokee 180 Checklist, and the FARS & AIM. After being reviewed by a Club Checkout Instructor, this questionnaire must be submitted to the RFC Dallas Inc. Safety Officer before solo flights may be conducted.

1. How many fuel drains must be checked during preflight? _____
2. The Airplane Flight Manual states that the oil capacity of the O-360 series engine is _____ quarts and the minimum safe quantity is _____ quarts.
(However, RFC recommends adding a quart of oil when the level on the dipstick indicates less than 6 quarts.)
3. After starting the engine, the maximum time that may elapse before oil pressure must be indicated is _____ seconds.
4. During the pre-takeoff engine run-up, the power should be set to _____ RPM. As each magneto is individually selected, the maximum allowable drop is _____ RPM.
5. To shorten takeoff distance, a flap setting of _____ degrees may be used.

For questions 6 thru 10 below, use the following criteria, and the performance charts in the AFM, to answer the subsequent questions pertaining to the aircraft's performance.

Conditions:

Preflight Pressure Altitude	1600 ft.
Temperature	30° C
Aircraft Gross Weight	2400 lbs.
Runway Surface	Paved/Level/Dry
Wind	Calm

6. The aircraft minimum runway takeoff distance is _____ feet.
7. Using the recommended flap setting, a total takeoff distance of _____ feet is required to clear a 50 foot obstacle.
8. Assuming a 50 foot obstacle at the approach end of the runway, the aircraft will use a minimum landing distance of _____ feet.
9. The expected climb rate is _____ feet per minute.

10. What is the power off stall speed, for the following conditions:

- a) Flaps up, and 0° angle of bank? _____ MPH.
- b) Flaps up, and 45° angle of bank? _____ MPH.

11. The V-Speeds for this aircraft in MPH are (complete the chart below):

(Conditions: Maximum gross weight @ sea level)

Vne		Vsi	
Vno		Vso	
Va		Maximum Glide	
Vfe		Enroute Climb	
Vx		Final Approach (40 Deg Flaps)	
Vy		Balked Landing (40 Deg Flaps)	

12. The approximate true airspeed when using 2400 RPM at a density altitude of 6000 ft is:
_____ MPH.

13. The maximum allowable gross weight for this aircraft is _____ lbs.

14. Specify the following Wt&Bal information for this actual aircraft:

Date on Wt&Bal	
Licensed Empty Weight (lbs)	
Arm (inches)	
Moment (lb inches)	

15. At maximum Gross Takeoff Weight, specify the following:

Forward CG Limit (inches)	
Rearward CG Limit (inches)	

16. With maximum fuel and oil on board how much additional weight may be carried aboard the aircraft? _____ lbs.

17. What is the maximum weight for the baggage area? _____ lbs.

For questions 18 and 19 Sample questions, use the following information:

*Basic Empty Weight (lbs)	1424.0
CG (inches)	86.14
Moment (lb-inches)	122,664.8
<u>ARMS:</u>	
Front Seats (inches)	85.5
Rear Seats (inches)	118.1
Fuel (inches)	95.0
Engine Oil (inches)	31.7
<u>LOADING CRITERIA:</u>	
Pilot (lbs)	185
Co-Pilot (lbs)	190
Rear Passengers (lbs)	105
Fuel (gals)	48
Oil (quarts)	8

*(BEW includes unusable fuel and undrainable oil)

18. Results are:

- The Gross Takeoff Weight (lbs) is: _____
- The Takeoff C.G. (inches aft of datum) is: _____
- Is the aircraft loaded within allowable weight limits? (Yes / No)
- Is the aircraft loaded within allowable C.G. limits? (Yes / No)

19. Given the loading scenario from the previous question, adding 50 lbs. of weight in the baggage compartment (Arm = 142.8) will result in:

- Updated Gross Takeoff Weight (lbs): _____
- Updated Takeoff C.G. is (inches aft of datum): _____

This added weight will cause (*circle all that apply*):

- The aircraft's rearward C.G. limit to be exceeded
- The aircraft's forward C.G. limit to be exceeded.
- The aircraft's maximum gross weight to be exceeded.
- The aircraft to be within weight and C.G. limits.

20. Total usable fuel capacity is: _____ gals.

21. The rated BHP of the engine installed in this aircraft at maximum allowable RPM is _____ BHP at _____ RPM.

22. Where is the ELT located? _____.

23. Can the ELT be activated manually? (Yes / No)

24. This aircraft is equipped with a heated pitot tube? (Yes / No)

25. What type of stall warning indicator is installed in this aircraft (*circle all that apply*)?
(Horn / Buzzer / Light / Siren)

26. How do you test the stall warning system on the ground?

27. The battery is (6 / 12 / 24) volts.

28. Which of the following axis can the pilot trim (*circle all that apply*)?
(Pitch / Roll / Yaw)

29. What initial actions should immediately be taken upon losing engine power during flight?

a) _____

b) _____

c) _____

d) _____

e) _____

f) _____

g) _____

30. What are the prescribed aircraft control inputs to initiate a recovery from a fully developed spin?

Power _____

Ailerons _____

Rudder _____

Elevator _____

31. This aircraft is approved for flight into known icing conditions? (Yes / No)

32. The GPS in this aircraft is certified for IFR operations? (Yes / No)

33. Per the owner, this aircraft uses the following oil:

_____.

34. The maximum CHT temperature is _____ F. Target CHT temperatures should be at or below _____ F.

35. According to FAR 91.7, the _____ is responsible for determining that the aircraft is a condition for safe and legal flight.

+++++
QUESTIONS FOR N9663J ONLY
+++++

36. This Aircraft is equipped with a “Stand-By Avionics System” in case the avionics switch fails. The “NORMAL” position of the Stand-By Avionics **Circuit Breaker** is: (OUT / IN)

Pilots Signature: _____

Reviewed by: _____

Date: _____