

Diamond DA40 N205DS FMFC Aircraft Checkout Test	Pilot: _____ CFI: _____ Pass Date: _____
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GENERAL

1. Is this aircraft certificated for: IFR operations? YES / NO Spins? YES / NO
2. Are aerobatics permitted in this aircraft? YES / NO
3. What is the primary type of material used in the aircraft construction? _____
4. Are flaps required for take-off? YES / NO If yes, what flap setting? _____
5. What RPM should you reduce to after take-off? _____
6. Is the seat position adjustable? YES / NO
7. How are the rudder pedals adjusted? _____
8. Where is the list of installed equipment located? _____
9. What Chapter of the POH has the list of "Minimum operational equipment"? _____

10. What are the min. altitudes for use of the autopilot? (KAP140 Flight Supplement) _____

11. What are the minimum/maximum operational speeds for the autopilot? _____

FUEL SYSTEM

12. What is the usable fuel in each tank? _____
13. What is the correct fuel grade? _____ Color? _____
14. How many and where are the drains located? _____
15. When should a fuel sample be examined? _____
16. If the fuel tank is not full, how can you determine the amount of fuel in each tank? _____



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17. If you use the fuel measurement device for the wing tanks, must you separately drain the Gascolator drain below the fuselage? YES / NO
18. What are the fuel selector positions? _____
19. How many fuel vents are there and where are they? _____
20. What will happen if the tanks are not vented properly? _____
21. When should the Auxiliary Fuel Pump be used? _____
22. At what altitude should you lean the fuel? _____

OIL SYSTEM

23. What is the minimum oil level? VFR: _____ IFR: _____ Max level? _____

ELECTRICAL SYSTEM

24. How is the system powered? _____
25. What is the electrical system voltage? _____
26. How many batteries are there in this aircraft and where are they located? _____

27. What is the battery voltage? _____
28. What takes the alternator off line in the event of an over-voltage condition? _____
29. How are the electrical circuits protected? _____

VACUUM SYSTEM

30. Describe the vacuum system: _____
31. What instruments operate off the pitot-static system? _____

32. What is the purpose of the alternate static air valve? _____
33. Where is it located? _____
34. How is the alternate static valve opened? _____

Diamond DA40 N205DS FMFC Aircraft Checkout Test

WEIGHT & BALANCE

35. What is the maximum take-off weight? _____ lbs.
36. What is the maximum landing weight? _____ lbs.
37. How much fuel must be used, to be at maximum landing weight, if take-off was at maximum?

38. What could be the result of landing at a higher than authorized landing weight?

39. What is the available weight for Pilot/passengers and luggage with full fuel? _____
40. What is the wing span of the Diamond DA40 (Tip to Tip) _____
41. Determine if the aircraft is within the weight & balance limitations with the following conditions:
*Full fuel, front passengers = 360 lbs., rear passengers = 160 lbs., Main baggage = 60 lbs.,
Baggage tube = 10 lbs*
- Within Weight Limitations? YES / NO Within baggage limitations? YES / NO
Within balance limitation? YES / NO,

AIRSPEDS

42. Stall speed in the landing configuration (V_{so})? _____
43. Never exceed speed (V_{ne})? _____
44. Max structural cruising speed (V_{no})? _____
45. Maneuvering speed (V_a) at max gross weight? _____
46. Does V_a increase or decrease as gross weight decreases? _____
47. Max flap extended speeds (V_{fe})? Flaps T/O position _____
48. Flaps LDG position _____
49. Normal rotation speed _____
50. Short field V_x speed _____

Diamond DA40 N205DS FMFC Aircraft Checkout Test

51. When should the flaps be retracted after departure? _____
52. Best rate of climb speed (Vy) at sea level? _____
53. Demonstrated crosswind component? _____
54. Normal final approach airspeed? _____
55. Aircraft configuration? _____
56. Short field final approach airspeed? _____
57. Aircraft configuration? _____
58. Best glide speed? _____

STARTING PROCEDURE

59. Describe the procedures for starting this aircraft:
Cold Start: _____
Warm Start: _____
Flooded Start: _____
60. Describe Vapor lock symptoms and the remedy: _____

61. What position(s) must the forward canopy be in for starting and taxiing the aircraft? _____
62. May either canopy be opened in any position during flight? YES / NO

EMERGENCY PROCEDURES

63. List the appropriate actions upon having an engine fire during startup. _____

64. List the appropriate actions upon having an engine fire in flight. _____

65. How would you detect an alternator failure, and what action would you take? _____

66. What actions would you take if you experienced an engine failure during flight? _____

Diamond DA40 N205DS FMFC Aircraft Checkout Test

67. What actions would you take if you noticed high oil temperature? _____

68. What actions would you take if you noticed low oil pressure while in flight? _____

69. Describe the “go around” procedure: _____
70. What is the purpose of the essential bus switch? _____

71. What is the purpose of the “Emergency” switch on the left side of the panel? _____

72. What are the memory items associated with the Autopilot/Trim Malfunctions? (KAP140 Flight Supplement) _____

AIRCRAFT PERFORMANCE

73. What is the power setting, fuel consumption and true airspeed for cruising at 75% power at 5,000 feet with standard temperature (lean to Best Power)?
RPM _____ MP _____ TAS _____ Fuel Consumption _____ GPH _____
74. What are the takeoff distances to clear a 50' obstacle when using maximum performance procedures with the aircraft at 2205 lbs. into a 10 knot headwind under the following conditions?
Pressure altitude = 2,000', Temperature = 59°F, Weight: 2205 lbs., Headwind 10 KIAS?
_____ Feet

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