Blue Sky Aviation New Aircraft Checkout

Dakota PA-28-236

A brief history:

Piper has introduced so many variants of the original (1962) PA-28 design that it's hard to keep track of which Cherokee is which. Our "PA-28" is actually the PA-28-236, or more commonly known as the Dakota.

The Dakota was introduced in 1979 as a new model, but it was really the second generation of the PA-28-235 Pathfinder. In fact, the Dakota and Pathfinder were almost identical in every way but one: Piper decided that a new tapered wing would lessen induced drag when compared to the old "Hershey bar" wing.

This new tapered wing design gave the Dakota a number of distinct advantages over its predecessor; it was faster, carried more fuel, and even had better climb performance too.

Our Dakota is actually a first year model but has been improved substantially since it flew off the factory line: two G5s, a GTN 750, and a GFC500 autopilot. In addition to its advanced avionics, it also has a JPI-830 engine management system.

Like previous checkouts, we have prepared an “open book” questionnaire as a way to help you get familiar with the Dakota. In addition to this document, you should know that all required documents, including both the POH and manuals, are on the Blue Sky website.

Please bring this completed document to your checkout session with your CFI. Feel free to discuss any questions or concerns you may have during your checkout. Being prepared will expedite the checkout (read: more flying, less talking).

Your first check out in the Dakota is for VFR purposes only so that we can facilitate getting everyone checked quickly. You will find the avionics quite similar to the Skylane. And you’ll find it a little heavier on the controls than the Archer. It will be up to you and your instructor to assess the need for any IFR training based on your currency and familiarity with the Dakota’s systems.

The following set of questions is meant to be practical - all the information contained within is to help you be a better, safer pilot. New planes always present some challenges and the Dakota is no different.

Here’s to a great addition to our fleet!!

Pilot_____ Date_____

General:

1. Is the Dakota certified for IFR operations?
2. Let’s say you want to get your CFI cert. and you need one hour of spin training. Can you do that in the Dakota?
3. What engine is in the Dakota?
4. What is static RPM?
5. Do you need a high-performance endorsement to fly a Dakota?
6. How many quarts of oil does the engine take?
7. What is the minimum number of quarts of oil for normal use?
8. What is the minimum number of quarts in an O-540?
9. What is the maximum engine oil operating temperature?
10. What is the normal engine oil pressure range?
11. What is the maximum cylinder head temperature (CHT) of the O-540?
12. What are considered good CHTs during most operations of the O-540?

Fuel System:

13. What is the normal fuel pressure range?
14. What kind of fuel does the Dakota take?
15. What color is the fuel normally?
16. What is the total fuel capacity?

17. How much of that is usable?
18. How much fuel per wing?
19. How many fuel drains are there and where are they located?
20. How many gallons of fuel do you have per wing if you see fuel at the bottom of the indicator tab?
21. How many fuel pumps does the Dakota have?
22. Does the Dakota have a BOTH detent on the fuel selector?
23. When changing fuel tanks what should you do first?

Electrical System:

24. What kind of battery does the Dakota have?
25. What kind of alternator does it have?
26. What does the ammeter display?
27. What is the maximum continuous load?
28. If the alternator dies in flight, do you immediately lose all electronics?
29. If you see the ALT annunciation during flight, what is the first thing you should check?
30. If the ALT circuit breaker is tripped, what should you do?

Landing Gear:

31. What kind of landing gear does the Dakota have?
32. What are proper tire pressures?
33. What is proper strut exposure?
34. Can you put air in the tire as part of routine maintenance under Part 43?
35. Can you adjust the struts?

Flaps:

36. Does the Dakota have electrically controlled flaps?
37. How do you operate the flaps?
38. What flap positions can be selected?
39. Can you use the flaps as a step?
40. How do you retract the flaps?

Pitot-Static System:

41. Where is the static port located?
42. Where is the alt-static port located?
43. When using alt-static air, what else should you do?
44. What is the accuracy of the alt-static air?
45. Where is the pitot tube?
46. Where are the pitot and static line drains?

Airspeeds:

47. Vr = ?

48. Vx = ?
49. Vy = ?
50. Va = ?
51. Vne = ?
52. Vg = ?
53. Vs0 = ?
54. Vs1 = ?
55. Vfe = ?
56. Vref = ?
57. Maximum demonstrated cross = ?

Weight and Balance:

58. Maximum ramp weight?
59. Maximum takeoff weight?
60. Maximum landoff weight?
61. Maximum baggage weight?
62. What could happen if you land over the maximum takeoff weight?

Normal Procedures:

63. What position should the mixture knob be set to during a normal cold start?
64. What should you immediately check after the engine starts?
65. What is the maximum differential you should see between mags during your run-up?
66. When phases of flight should the fuel pump be turned on?
67. Why is it important to have the fuel pump on during landing?
68. Do you need flaps for take-off?
69. How would you perform a short field take-off?
70. Any differences with a soft field take-off?
71. After reducing power on a descent, what should you turn on during a descent and why?
72. During landings, what side should the fuel tank be set to?

Emergency Procedures:

73. You are flying along and suddenly the engine is running rough, what are a few things you can do to diagnose quickly?
74. If you suspect you have carb ice, should you leave the carb heat on?
75. If you need to make an off field landing, what are some of the things you would do to prepare the Dakota for landing?
76. If you see oil pressure going down but oil temps staying the same, what could that mean?