Beechcraft Travel Air BE-95 Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

Questions

1. What type of knowledge must be endorsed in the logbook for an additional aircraft class rating?

A. Technical knowledge

B. Aeronautical knowledge

C. Theoretical knowledge

D. Practical knowledge

2. What is the maximum baggage weight for the Beechcraft Travel Air BE-95?

A. 200 lbs

B. 300 lbs

C. 400 lbs

D. 500 lbs

3. What is the range of the Beechcraft Travel Air BE-95?

A. Approximately 800 miles

B. Approximately 1,000 miles

C. Approximately 1,200 miles

D. Approximately 1,400 miles

4. What operational limits should pilots be aware of when flying the Beechcraft Travel Air BE-95?

A. Weight limits, altitude, and airspeed restrictions

B. Weather constraints and visibility issues

C. Noise restrictions during takeoff

D. Time limits for flight duration

5. What is the maximum permissible load factor for the Beechcraft Travel Air BE-95?

A. +2.5 g to -1 g

B. +3 g to -2 g

C. +3.8 g to -1.5 g

D. +4 g to -2.5 g

6. What engine configuration does the Travel Air BE-95 use?

A. 4-cylinder inline

B. Horizontally opposed

C. V6 configuration

D. Flat-4 engine

7. What type of cooling system does the Travel Air BE-95 engine use?

A. Liquid cooled

B. Radiator cooled

C. Air cooled

D. Oil cooled

8. Which procedure is performed to check the fuel system before flight in the Beechcraft Travel Air BE-95?

A. Drain fuel tanks

B. Check fuel levels and quality

C. Inspect fuel lines for leaks

D. All of the above

9. How is the landing gear of the Travel Air BE-95 operated?

A. Manually operated by pilots

B. Hydraulically powered by a pump

C. Electrically driven by a reversible motor

D. Pneumatically assisted by compressed air

10. Where is the electric stall detector located on the Beechcraft Travel Air BE-95?

A. On the right wing

B. On the tail

C. On the left wing

D. In the cockpit

Answers

1. B
2. C
3. C
4. A
5. C
6. B
7. C
8. D
9. C
10. C

Explanations

1. What type of knowledge must be endorsed in the logbook for an additional aircraft class rating?

A. Technical knowledge

B. Aeronautical knowledge

C. Theoretical knowledge

D. Practical knowledge

For obtaining an additional aircraft class rating, the logbook must reflect the endorsement of aeronautical knowledge. This refers specifically to the understanding of the principles of flight, aircraft operations, regulations, and performance specifics related to the new class of aircraft. Aeronautical knowledge encompasses various critical topics, including navigation, weather interpretation, communications procedures, and the operation of specific aircraft systems. This comprehensive understanding is vital to ensure that pilots can safely and effectively operate different types of aircraft, especially those that may have significantly different handling characteristics or procedural requirements compared to what they are accustomed to. While technical knowledge relates to the specifics of the aircraft systems and configurations, and practical knowledge involves hands-on flying abilities, aeronautical knowledge provides the foundational theoretical understanding necessary for safe piloting and regulatory compliance across different aircraft types.

2. What is the maximum baggage weight for the Beechcraft Travel Air BE-95?

A. 200 lbs

B. 300 lbs

C. 400 lbs

D. 500 lbs

The maximum baggage weight for the Beechcraft Travel Air BE-95 is indeed 400 lbs. This specification is crucial for ensuring safe flight operations and proper load distribution. Exceeding this weight can impact the aircraft's performance, including climb rate, fuel efficiency, and overall stability. Understanding the maximum baggage capacity helps pilots manage the weight and balance of the aircraft effectively, ensuring compliance with regulatory guidelines and maintaining the safety of all onboard. It is essential for pilots and operators to be aware of these limitations to prevent potential issues during flight and to optimize the aircraft's performance.

3. What is the range of the Beechcraft Travel Air BE-95?

A. Approximately 800 miles

B. Approximately 1,000 miles

C. Approximately 1,200 miles

D. Approximately 1,400 miles

The Beechcraft Travel Air BE-95 has a range of approximately 1,200 miles. This range is a critical factor for pilots and operators, as it determines the aircraft's operational capabilities, including how far it can travel non-stop and its suitability for various missions such as training, recreational flights, or regional travel. The BE-95's design includes efficient fuel consumption and optimal aerodynamics, contributing to its ability to cover this distance effectively. Understanding the aircraft's range is essential for flight planning and ensuring safe operations, as it helps pilots assess their fuel needs and flight itineraries.

4. What operational limits should pilots be aware of when flying the Beechcraft Travel Air BE-95?

A. Weight limits, altitude, and airspeed restrictions

B. Weather constraints and visibility issues

C. Noise restrictions during takeoff

D. Time limits for flight duration

For pilots operating the Beechcraft Travel Air BE-95, understanding the operational limits is crucial for safe flight. The choice that emphasizes weight limits, altitude, and airspeed restrictions encompasses key parameters that directly affect the aircraft's performance and safety. Weight limits refer to the maximum weight that the aircraft can carry, including passengers, cargo, and fuel. Exceeding these limits can adversely impact the aircraft's handling, stall speed, and overall performance. Altitude limitations are important because they define the maximum and minimum operational altitudes, which can influence engine performance and aircraft handling characteristics. Similarly, airspeed restrictions encompass the minimum and maximum speeds for safe operation, affecting the aircraft's control and stall characteristics. While the other options mention important factors in flight operations, such as weather conditions and noise restrictions, they do not encompass the fundamental operational limits that pilots must adhere to for the safe flight of the BE-95. Therefore, awareness of weight limits, altitude, and airspeed restrictions provides a comprehensive understanding of the aircraft's operational capabilities and ensures that pilots conduct their flights within safe parameters.

5. What is the maximum permissible load factor for the Beechcraft Travel Air BE-95?

A. +2.5 g to -1 g

B. +3 g to -2 g

C. +3.8 g to -1.5 g

D. +4 g to -2.5 g

The maximum permissible load factor for the Beechcraft Travel Air BE-95 is defined as +3.8 g to -1.5 g. This specification indicates the aircraft's structural limits and its ability to withstand various stresses during maneuvers. A positive load factor of +3.8 g means that the aircraft can safely endure forces nearly four times its weight in certain operational scenarios, such as sharp turns or sudden climbs. Conversely, a negative load factor of -1.5 g indicates the aircraft can handle downward forces equivalent to one and a half times its weight while in a controlled descent or in the event of turbulence. Understanding these load factor limits is critical for pilots to maintain safety and structural integrity during flight operations. Exceeding these limits can lead to structural failure or loss of control, making it essential for pilots to be aware of these figures when planning maneuvers. The other options provide load factors that do not align with the certified limits for the BE-95, highlighting the importance of referencing accurate and specific operational data for this aircraft to ensure safe flight practices.

6. What engine configuration does the Travel Air BE-95 use?

A. 4-cylinder inline

B. Horizontally opposed

C. V6 configuration

D. Flat-4 engine

The Beechcraft Travel Air BE-95 utilizes a horizontally opposed engine configuration, which is also known as a "flat" engine design. This arrangement features cylinders laid out in two banks that are horizontally opposed to one another. This configuration is notable for its advantages in terms of weight distribution and a lower center of gravity, which contribute to enhanced aircraft stability and handling characteristics. Moreover, the horizontally opposed design allows for a more compact engine that can be fitted more easily into the aircraft's structure, improving aerodynamic efficiency. The reduced vibration in this engine layout is another significant benefit, as it leads to a smoother operation and a more comfortable experience for both pilots and passengers. This type of engine is commonly used in various light aircraft, providing reliable performance and efficiency, making it a fitting choice for the Travel Air BE-95.

7. What type of cooling system does the Travel Air BE-95 engine use?

A. Liquid cooled

B. Radiator cooled

C. Air cooled

D. Oil cooled

The Beechcraft Travel Air BE-95 is equipped with an air-cooled engine system. This means that the engine relies on the flow of air over its surfaces to dissipate heat generated during operation. Air-cooled engines typically have cooling fins and rely on the motion of the aircraft through the air to effectively cool the engine components. Air cooling is advantageous in aircraft applications for several reasons, including reduced weight and complexity compared to liquid-cooled systems. It eliminates the need for a radiator, water pump, and associated plumbing, which can add both weight and maintenance concerns. Additionally, air-cooled engines operate efficiently at higher altitudes where liquid cooling could be less effective due to lower air density. Choosing an air-cooled system for the Beechcraft Travel Air BE-95 was an effective design choice that maximizes performance while maintaining simplicity and reliability in the aircraft's engine configuration.

8. Which procedure is performed to check the fuel system before flight in the Beechcraft Travel Air BE-95?

A. Drain fuel tanks

B. Check fuel levels and quality

C. Inspect fuel lines for leaks

D. All of the above

To check the fuel system before flight in the Beechcraft Travel Air BE-95, it is essential to perform a comprehensive pre-flight inspection that includes several critical steps. Each component plays a role in ensuring the safety and efficiency of the flight. Draining fuel tanks is important for removing any debris or water that may have settled at the bottom, but it is just one part of the overall procedure. Checking fuel levels and quality is crucial; the fuel must be at the appropriate level and free of contaminants to ensure optimal engine performance. Inspecting fuel lines for leaks is equally vital, as any leaks could lead to fuel loss or potential fire hazards. Performing all these checks together ensures that the fuel system is in optimal working order and minimizes the risk of fuel-related issues during flight. Therefore, a thorough pre-flight check that includes draining tanks, checking levels and quality, and inspecting lines for leaks is the proper procedure, which is why the answer encompasses all these actions.

9. How is the landing gear of the Travel Air BE-95 operated?

A. Manually operated by pilots

B. Hydraulically powered by a pump

C. Electrically driven by a reversible motor

D. Pneumatically assisted by compressed air

The landing gear of the Beechcraft Travel Air BE-95 is operated electrically by a reversible motor. This system allows for efficient and reliable operation of the landing gear, which is crucial for safe landings and takeoffs. The use of an electrical system means that pilots can deploy and retract the landing gear with the push of a switch in the cockpit, providing an accessible and straightforward method for gear operation. This approach reduces the weight of the landing gear mechanism compared to hydraulic systems, which often require additional components such as pumps and fluid reservoirs. Moreover, an electric motor system generally provides quicker gear operation compared to manual or pneumatic methods, enhancing the aircraft's overall performance and safety. Understanding how this system works is key for pilots to ensure proper handling and to troubleshoot any potential issues that may arise during flight.

10. Where is the electric stall detector located on the Beechcraft Travel Air BE-95?

A. On the right wing

B. On the tail

C. On the left wing

D. In the cockpit

The electric stall detector on the Beechcraft Travel Air BE-95 is located on the left wing. This positioning is essential for accurately measuring airflow over the wing, which is critical for detecting stall conditions. The stall detector typically relies on sensors positioned to monitor changes in airflow as the aircraft approaches stall. By placing it on the left wing, this system can capture data that reflects the flight characteristics and behavior of that specific wing, as stalls often initiate on a wing and can vary due to weight distribution, control inputs, or other factors. Therefore, understanding its location helps pilots and maintenance personnel know how to service, check, or troubleshoot the stall warning system effectively.