

AVIATION BOATSWAIN'S MATE – FUELS (ABF) PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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1. The JP-5 hose reel holds 150 feet of hose. If you use 75 feet, how many feet remain on the reel?
 - A. 75 feet
 - B. 150 feet
 - C. 25 feet
 - D. 100 feet
2. What is the rated pressure for a rotary vane stripping pump?
 - A. 30 gpm at 40 psi
 - B. 100 gpm at 60 psi
 - C. 60 gpm at 75 psi
 - D. 50 gpm at 50 psi
3. How far does the hand operated stripping tailpipe extend off the ground?
 - A. 3/4 inches
 - B. 1 inch
 - C. 1/2 inch
 - D. 2 inches
4. How much hose does JP-5 hose reel hold?
 - A. 200 feet
 - B. 150 feet
 - C. 100 feet
 - D. 50 feet
5. What is the effective range of spring tension that the pressure relief control valves can be adjusted?
 - A. 10-40 psi
 - B. 20-70 psi
 - C. 30-60 psi
 - D. 25-75 psi

6. The collar is attached by how many ball bearings?
- A. 39
 - B. 49
 - C. 29
 - D. 59
7. Which component uses more ball bearings, the collar or the bottom of the body?
- A. The bottom of the body
 - B. The collar
 - C. Both use the same number
 - D. Neither uses ball bearings
8. What is the flashpoint value for JP-8?
- A. 100 degrees
 - B. -40 degrees
 - C. 0 degrees
 - D. 212 degrees
9. How far does the motor driven extending tailpipe extend off the ground?
- A. 1 1/2 inches
 - B. 2 inches
 - C. 3 inches
 - D. 1 inch
10. What must JP-5 look like to be acceptable to aircraft?
- A. Clear and colorless
 - B. Cloudy and hazy
 - C. Oily sheen
 - D. Clean and bright

Answers

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

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Explanations

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1. The JP-5 hose reel holds 150 feet of hose. If you use 75 feet, how many feet remain on the reel?

- A. 75 feet**
- B. 150 feet
- C. 25 feet
- D. 100 feet

Subtracting the amount you've used from the total length on the reel gives you what remains. You start with 150 feet, and after using 75 feet, the remainder is 150 minus 75, which equals 75 feet. So 75 feet remain on the reel. If you see other numbers, they imply different amounts used: 150 left means none used, 25 left means 125 used, and 100 left means 50 used.

2. What is the rated pressure for a rotary vane stripping pump?

- A. 30 gpm at 40 psi
- B. 100 gpm at 60 psi
- C. 60 gpm at 75 psi
- D. 50 gpm at 50 psi**

Stripping pumps have a defined operating point on their performance curve: the flow you get at a given discharge pressure. For a rotary vane stripping pump used in ABF, this intended point is about 50 gpm at 50 psi. That combination gives enough flow to move residual fuel quickly while keeping the discharge pressure at a level safe for hoses, fittings, and the surrounding system. If you push for more pressure, the pump's flow falls off and you risk over-pressurizing components; if you try to push more flow at a lower pressure, the removal becomes inefficient and takes longer. The 50 gpm at 50 psi pairing balances speed and system safety, making it the standard rating for this pump.

3. How far does the hand operated stripping tailpipe extend off the ground?

- A. 3/4 inches**
- B. 1 inch
- C. 1/2 inch
- D. 2 inches

The key idea here is maintaining a precise clearance for the hand-operated stripping tailpipe so it stays above the deck enough to avoid snagging or leaking, but not so high that it becomes unstable or misaligned. The required height is 3/4 inch. This small gap keeps the tailpipe end clear of the surface to prevent dragging on the deck or picking up debris, while still ensuring proper flow path and venting during operation. If it were closer to the deck than that, it could drag or scrape; if it were much higher, it could become unstable or misaligned with the drainage path.

4. How much hose does JP-5 hose reel hold?

- A. 200 feet
- B. 150 feet**
- C. 100 feet
- D. 50 feet

The reach and manageability of JP-5 hoses on a reel are balanced to provide enough length for fueling aircraft without making the line cumbersome. A JP-5 hose reel is designed to hold 150 feet of hose, which gives adequate distance from the pump to the aircraft while keeping the reel weight and hose handling practical. Shorter lengths would limit reach and require more repositioning, while longer lengths would be harder to reel and manage on deck.

5. What is the effective range of spring tension that the pressure relief control valves can be adjusted?

- A. 10-40 psi
- B. 20-70 psi**
- C. 30-60 psi
- D. 25-75 psi

The main idea is that the spring tension sets the pressure at which the valve begins to open, so the adjustment range must cover the usual overpressure conditions the system could encounter. For these pressure relief control valves, the practical adjustment range is from about 20 psi up to about 70 psi. Setting the spring tension within this span allows the valve to stay closed during normal operation but open to relieve pressure if it rises due to pump surges, temperature changes, or other transient conditions, without venting too early or too late. This broad range accommodates different aircraft configurations and operating scenarios, ensuring protection of the fuel system components.

6. The collar is attached by how many ball bearings?

- A. 39
- B. 49**
- C. 29
- D. 59

Ball bearings around a collar are chosen to provide smooth rotation and even load distribution. The number of balls used is set by the design to achieve the right contact pattern, clearance, and stiffness for the operating loads. In this collar, a ring of 49 balls evenly spaced around the circumference gives uniform contact with the bearing races, minimizes play, and maintains the collar's concentricity under load. That arrangement provides the necessary load distribution and resistance to binding, which is why 49 is the design-specified count. Using fewer balls would increase load per ball and risk uneven wear or binding, while more balls would demand a larger diameter without adding real benefit.

7. Which component uses more ball bearings, the collar or the bottom of the body?

- A. The bottom of the body
- B. The collar**
- C. Both use the same number
- D. Neither uses ball bearings

Ball bearings are placed where rotation happens and loads must be carried with low friction. The collar is the rotating interface that fits around the shaft and typically carries both radial and axial loads across its circumference. To keep everything aligned and to distribute the load evenly, it uses a fuller bearing arrangement with multiple rolling elements, so more ball bearings are involved. The bottom of the body generally serves as a stationary support or a simpler bearing surface and doesn't require as many rolling elements to handle the loads, often only a single bearing contact or a minimal interface. That's why the collar ends up using more ball bearings.

8. What is the flashpoint value for JP-8?

- A. 100 degrees**
- B. -40 degrees
- C. 0 degrees
- D. 212 degrees

Flashpoint is the lowest temperature at which enough fuel vapor is produced to ignite in air when an ignition source is present. For JP-8, this occurs at about 100 degrees Fahrenheit, meaning when the fuel temperature reaches roughly 100°F, its vapors can ignite with a flame or spark. The other temperatures correspond to unrelated properties (for example, freezing or boiling points) and do not indicate the ignition threshold for JP-8. So, the 100-degree mark is the practical flashpoint used for safe handling and operations.

9. How far does the motor driven extending tailpipe extend off the ground?

- A. 1 1/2 inches**
- B. 2 inches
- C. 3 inches
- D. 1 inch

The important idea is ground clearance for the extending tailpipe. The motor-driven tailpipe is designed to sit just high enough off the surface to avoid striking the deck or being damaged during movement and operation, while still directing exhaust away from the fueling area. One and one-half inches provides that safe, practical clearance—not so little that it would ground out on uneven surfaces, and not so much that it would change exhaust flow or add unnecessary exposure to damage.

10. What must JP-5 look like to be acceptable to aircraft?

- A. Clear and colorless
- B. Cloudy and hazy
- C. Oily sheen
- D. Clean and bright**

Visual appearance tests indicate fuel cleanliness and absence of contamination. JP-5 must look clean and bright, meaning it should be free of cloudiness or haze and have no oily sheen or sediment. Cloudiness or haziness signals water in the fuel or other contaminants, which can cause icing, fuel filter plugging, or fuel system problems. An oily sheen points to contamination from lubricants or hydrocarbons that shouldn't be present in the fuel. Clean and bright shows the fuel is within spec for safe use in aircraft, ensuring proper flow, filtration, and engine performance.

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Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://aviboatswainmatefuels.examzify.com>

We wish you the very best on your exam journey. You've got this!

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