

FDNY COF TO OPERATE AND MAINTAIN AIR COMPRESSORS (A-35) 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. What does it mean when an air compressor has a low oil warning light?**
 - A. It means the compressor is nearing end-of-life
 - B. It means the oil level is dangerously low, indicating a risk of damage to the compressor
 - C. It indicates that the oil needs to be changed soon
 - D. It suggests the compressor is operating at too high a temperature
- 2. What does the filter and moisture separator assembly (FMSA) do in an air compressor?**
 - A. Drains excess oil from the compressor
 - B. Removes moisture from compressed air
 - C. Indicates pressure levels
 - D. Allows air to escape the system
- 3. What is the primary purpose of lockout/tagout procedures in air compressor maintenance?**
 - A. To ensure equipment is cleaned
 - B. To prevent unintended startup during maintenance
 - C. To monitor performance metrics
 - D. To inventory spare parts
- 4. What could be a sign of overheating in an air compressor?**
 - A. Increased lubrication requirements
 - B. A hot exterior casing
 - C. Higher humidity levels in the surrounding area
 - D. Extended operating hours
- 5. What does A-35 refer to in the context of FDNY?**
 - A. A Certificate of Fitness for operating and maintaining air compressors
 - B. A safety regulation for fire extinguishers
 - C. A type of fire department classification
 - D. A training program for new firefighters

- 6. What happens if oil or water enters the compressor tank?**
- A. It can enhance performance
 - B. It can cause an explosion
 - C. It will improve lubrication
 - D. It is harmless
- 7. What is the first step a user should take before refueling a gasoline-powered air compressor?**
- A. Check the fuel level
 - B. Ensure the engine is off and cool
 - C. Inspect the air filter
 - D. Clean the exterior
- 8. How does a rotary screw compressor operate?**
- A. It uses a reciprocating motion to compress air
 - B. It compresses air using rotating screws
 - C. It relies on high-speed fans for air compression
 - D. It is powered by external compressed gas
- 9. Which condition describes when the compressor should NOT be running during testing?**
- A. When testing the oil indicator switch
 - B. When testing the safety valves
 - C. When checking for water buildup
 - D. When inspecting electrical connections
- 10. What could be a consequence of not conducting regular maintenance on an air compressor?**
- A. Improved compressor lifespan
 - B. Increased operational efficiency
 - C. Frequent breakdowns and costly repairs
 - D. Lower energy consumption

Answers

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

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Explanations

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1. What does it mean when an air compressor has a low oil warning light?

- A. It means the compressor is nearing end-of-life
- B. It means the oil level is dangerously low, indicating a risk of damage to the compressor**
- C. It indicates that the oil needs to be changed soon
- D. It suggests the compressor is operating at too high a temperature

When an air compressor has a low oil warning light, it signifies that the oil level is dangerously low. This condition poses a risk of damage to the compressor, as oil is essential for lubrication, cooling, and overall operation. Low oil levels can result in increased friction, overheating, and potential failure of internal components, which may cause significant and costly damage. It's crucial to address this warning promptly to ensure the compressor continues to operate safely and effectively, thus preventing operational downtime and repairs that could arise from neglecting the oil level.

2. What does the filter and moisture separator assembly (FMSA) do in an air compressor?

- A. Drains excess oil from the compressor
- B. Removes moisture from compressed air**
- C. Indicates pressure levels
- D. Allows air to escape the system

The filter and moisture separator assembly (FMSA) plays a crucial role in ensuring the quality of the compressed air produced by the air compressor. The primary function of the FMSA is to effectively remove moisture from the compressed air. Moisture can lead to various issues, including corrosion, equipment damage, and reduced efficiency in pneumatic systems. By preventing moisture build-up, the FMSA helps maintain the integrity of the air supply and enhances the overall reliability and longevity of the air compressor and downstream equipment. In the context of other options: draining excess oil relates to different components designed for lubrication management, indicating pressure levels is a function typically associated with pressure gauges, and allowing air to escape the system does not align with the purpose of maintaining pressure and quality in the compressed air system. Therefore, the FMSA's dedicated role in moisture removal emphasizes its importance in air compressor operation and maintenance.

3. What is the primary purpose of lockout/tagout procedures in air compressor maintenance?

- A. To ensure equipment is cleaned
- B. To prevent unintended startup during maintenance**
- C. To monitor performance metrics
- D. To inventory spare parts

The primary purpose of lockout/tagout procedures in air compressor maintenance is to prevent unintended startup during maintenance. These procedures are critical safety protocols used to ensure that machinery is properly shut down and in a non-operational state before any maintenance work is performed. This significantly reduces the risk of accidents and injuries caused by equipment unexpectedly turning on while technicians are servicing it. By implementing lockout/tagout, workers can effectively isolate energy sources, such as electrical, hydraulic, or pneumatic, ensuring there is no energy flow that could inadvertently activate the compressor. Thus, the correct answer emphasizes the importance of safety and risk mitigation in maintenance tasks, making it essential for protecting personnel during repair and service activities.

4. What could be a sign of overheating in an air compressor?

- A. Increased lubrication requirements
- B. A hot exterior casing**
- C. Higher humidity levels in the surrounding area
- D. Extended operating hours

A hot exterior casing is a strong indicator of overheating in an air compressor. When the internal components of an air compressor operate, they generate heat as a natural byproduct of compression and mechanical friction. If the compressor is functioning properly, this heat is typically dissipated through the casing and cooling systems. However, if the casing is excessively hot to the touch, it suggests that the heat is not being effectively managed, which can lead to component failure or a breakdown in the compressor's efficiency. Monitoring the temperature of the external casing is critical for operators. If the casing is too hot, it may signal that the compressor is working harder than it should—perhaps due to issues like inadequate lubrication, mechanical problems, or blocked air filters. Taking action upon noticing this sign can prevent more serious damage to the compressor. While increased lubrication requirements, higher humidity levels, and extended operating hours may influence compressor performance, they do not serve as direct indicators of overheating in the same immediate manner that a hot exterior casing does. Therefore, recognizing the temperature of the exterior casing can help maintain the longevity and effectiveness of the air compressor.

5. What does A-35 refer to in the context of FDNY?

- A. A Certificate of Fitness for operating and maintaining air compressors**
- B. A safety regulation for fire extinguishers
- C. A type of fire department classification
- D. A training program for new firefighters

A-35 refers specifically to a Certificate of Fitness for operating and maintaining air compressors within the FDNY. This certification is crucial as it ensures that individuals are trained and qualified to handle air compressors safely and effectively, which is an essential piece of equipment in maintaining the operations of firefighting and emergency services. Having the A-35 certification demonstrates knowledge of the operational procedures, maintenance practices, and safety requirements associated with air compressors, which are vital for supplying breathing air to firefighters and other emergency personnel. This specialization is necessary to ensure the integrity and reliability of the equipment during emergency situations, emphasizing the importance of proper training in electrical, mechanical, and safety standards related to air compressors.

6. What happens if oil or water enters the compressor tank?

- A. It can enhance performance
- B. It can cause an explosion**
- C. It will improve lubrication
- D. It is harmless

When oil or water enters the compressor tank, it can lead to severe consequences, including the risk of an explosion. Compressors are designed to operate with specific types of air, and the presence of oil or water can disrupt their functionality. Water in particular can lead to corrosion, while oil can create a slippery layer that disrupts the proper functioning and sealing of the compressor's internal components. In extreme cases, when water in the tank turns to steam due to high pressure, it can expand rapidly and cause an explosive reaction. This explosion can damage the compressor and pose significant hazards to safety and operational integrity. Indeed, ensuring that only filtered, dry air enters the compressor tank is crucial for safe and effective operation, making the threat of explosions a major concern.

7. What is the first step a user should take before refueling a gasoline-powered air compressor?

- A. Check the fuel level
- B. Ensure the engine is off and cool**
- C. Inspect the air filter
- D. Clean the exterior

The first step a user should take before refueling a gasoline-powered air compressor is to ensure the engine is off and cool. This is crucial for safety reasons. Refueling an engine that is still running or hot poses several risks, including the possibility of fire or explosion due to the flammable nature of gasoline. A cool engine minimizes these risks and helps in safely handling fuel without the danger of igniting fumes. In addition, this precaution helps to prevent engine damage. Many manufacturers recommend keeping the engine off during refueling to avoid mixing gasoline with engine oil or creating pressure buildup that can lead to spills. Therefore, verifying that the engine is not operating and has cooled down significantly is a vital safety step before proceeding with any fuel replenishment.

8. How does a rotary screw compressor operate?

- A. It uses a reciprocating motion to compress air
- B. It compresses air using rotating screws**
- C. It relies on high-speed fans for air compression
- D. It is powered by external compressed gas

A rotary screw compressor operates by compressing air through the use of rotating screws. This design involves a pair of helical screws that rotate within a chamber, trapping air between the screws and compressing it as they turn. The continuous rotation of the screws allows for a steady and efficient flow of compressed air, making rotary screw compressors particularly suitable for industrial applications where a constant supply of compressed air is needed. The efficiency of this design comes from the fact that as the screws rotate, the volume of the air being trapped decreases, thus increasing the pressure of the air. This method of compression is distinct from other types, such as reciprocating compressors, which use a back-and-forth motion to achieve compression. Unlike that method, rotary screw compressors can operate continuously without the frequent start-stop cycle associated with reciprocating compressors, providing a more reliable and consistent air supply. Moreover, rotary screw compressors are typically less noisy and can maintain lower operating temperatures, contributing to their popularity in applications requiring extended periods of air compression.

9. Which condition describes when the compressor should NOT be running during testing?

- A. When testing the oil indicator switch**
- B. When testing the safety valves
- C. When checking for water buildup
- D. When inspecting electrical connections

The correct answer indicates that the compressor should not be running when testing the oil indicator switch. This is crucial because the oil indicator switch is designed to monitor the oil level or pressure within the compressor system. If the compressor is operating during this test, it could lead to inaccurate readings and potential hazards, such as oil spills or pressure abnormalities, which might result in damage to the equipment or pose safety risks to the operator. Testing components like the oil indicator switch while the compressor is off allows for a safe assessment of the system's condition without the risk of moving parts or pressurized systems interfering with the evaluation. This ensures that the readings being taken are solely based on the oil system's status without the complications introduced by the compressor's operation. In contrast, testing conditions for safety valves, checking for water buildup, and inspecting electrical connections can typically be conducted with the compressor either on or off, depending on manufacturer guidelines and safety protocols, as long as appropriate safety measures are followed.

10. What could be a consequence of not conducting regular maintenance on an air compressor?

- A. Improved compressor lifespan
- B. Increased operational efficiency
- C. Frequent breakdowns and costly repairs**
- D. Lower energy consumption

Conducting regular maintenance on an air compressor is crucial for ensuring its reliability and performance. When maintenance is neglected, the wear and tear on the components can lead to frequent breakdowns. These disruptions not only hinder productivity but also result in costly repairs due to the need to replace damaged parts or even the entire unit. Over time, the increased likelihood of equipment failure becomes a significant concern, as repairs can escalate both in cost and time, affecting overall operations and budgets. Regular maintenance, on the other hand, helps in identifying potential issues early, allowing for timely interventions that can prolong the life of the compressor and maintain efficiency.

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://fdnycofa35.examzify.com>

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

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