

# HET Truck and Transport Mechanic Practice Exam (Sample)

## Study Guide



**Everything you need from our exam experts!**

**This is a sample study guide. To access the full version with hundreds of questions,**

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**SAMPLE**

# Table of Contents

<b>Copyright</b> .....	<b>1</b>
<b>Table of Contents</b> .....	<b>2</b>
<b>Introduction</b> .....	<b>3</b>
<b>How to Use This Guide</b> .....	<b>4</b>
<b>Questions</b> .....	<b>6</b>
<b>Answers</b> .....	<b>9</b>
<b>Explanations</b> .....	<b>11</b>
<b>Next Steps</b> .....	<b>17</b>

# 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. Don't worry about getting everything right, 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, and take breaks to retain information better.**

## **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.**

## **7. Use Other Tools**

**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!**

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## Questions

- 1. What can result from spinning one wheel during poor traction conditions?**
  - A. Increased fuel consumption**
  - B. Chipped and broken inter-axle differential lock clutching teeth**
  - C. Overheated axle bearings**
  - D. Worn brake pads**
- 2. What is the function of a wheel speed sensor in truck systems?**
  - A. It measures engine temperature**
  - B. It measures the rotational speed of the wheel**
  - C. It monitors fuel efficiency**
  - D. It controls exhaust emissions**
- 3. Which symptom is a sign of low oil level in an automatic transmission?**
  - A. Decreased fuel economy**
  - B. Delayed shifting from third to second gear**
  - C. Delayed engagement into reverse**
  - D. Rough idling**
- 4. What is a symptom of insufficient backlash within a rear axle?**
  - A. Excessive noise during gear engagement**
  - B. Clunking sound when reversing**
  - C. Increased fuel consumption**
  - D. Vibration at high speeds**
- 5. What key function does an engine compression brake perform during operation?**
  - A. Opens the exhaust valve on the power stroke**
  - B. Closes the intake valve on the compression stroke**
  - C. Closes the exhaust valve on the power stroke**
  - D. Opens the intake valve on the power stroke**



- 6. What is the correct procedure for replacing S-cams in a truck's braking system?**
- A. Replace the automatic slack adjusters and inspect brake chamber diaphragms**
  - B. Inspect the slave valve clearance and turn S-cam bushings 90°**
  - C. Replace brake hoses and adjust the clutch switch**
  - D. Only replace the service brake chamber diaphragms**
- 7. What is a common cause of engine knocking in trucks?**
- A. Using high-octane fuel**
  - B. Carbon buildup or a malfunctioning ignition system**
  - C. Low battery voltage**
  - D. Excessive oil thickness**
- 8. Which component of the fueling system is directly responsible for injecting fuel into the engine?**
- A. Fuel pump**
  - B. Fuel injector**
  - C. Fuel filter**
  - D. Fuel tank**
- 9. What is the second adjustment to be performed when setting a double disc angle spring clutch?**
- A. Check and adjust rolling torque**
  - B. Clutch brake**
  - C. Linkage length**
  - D. Upper pedal stop**
- 10. What is the primary purpose of lubrication in a diesel engine?**
- A. To facilitate fuel combustion**
  - B. To reduce friction among components**
  - C. To cool the intake air**
  - D. To assist in the exhaust process**

## **Answers**

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

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## **Explanations**

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1. What can result from spinning one wheel during poor traction conditions?
- A. Increased fuel consumption
  - B. Chipped and broken inter-axle differential lock clutching teeth**
  - C. Overheated axle bearings
  - D. Worn brake pads

Spinning one wheel during poor traction conditions can indeed lead to chipped and broken inter-axle differential lock clutching teeth. In a vehicle with a traditional differential, when one wheel spins freely due to inadequate grip (like on ice or mud), it can create excessive rotational stress on the components meant to maintain a balanced distribution of torque between the wheels. The inter-axle differential lock is designed to help transfer power to the rear wheels more evenly when traction is lost, but if one wheel continues to spin while the other doesn't, it puts additional strain on the clutch mechanism. Continuous engagement and disengagement, along with the excessive friction created by the one spinning wheel, can lead to wear and deformation of the clutching teeth. This damage may compromise the functionality of the differential and can lead to more extensive, costly repairs if not addressed. While increased fuel consumption, overheated axle bearings, and worn brake pads may also be associated with poor traction conditions or wheel spinning, they do not directly correlate with the immediate mechanical failure resulting from the stress on the inter-axle differential lock. Thus, the response describing the damaging effects on the differential lock clutching teeth is the most accurate in this context.

2. What is the function of a wheel speed sensor in truck systems?
- A. It measures engine temperature
  - B. It measures the rotational speed of the wheel**
  - C. It monitors fuel efficiency
  - D. It controls exhaust emissions

The function of a wheel speed sensor is to measure the rotational speed of the wheel. This data is crucial for various vehicle systems, including antilock braking systems (ABS), traction control, and stability control. By accurately monitoring the speed at which each wheel is rotating, the sensor provides real-time information that can influence the vehicle's handling and safety features. For example, in the ABS, if a wheel begins to skid, the system can detect the reduction in speed from the sensor and adjust the braking force to that wheel to help maintain control. This capability not only enhances safety but also improves the overall driving experience. Understanding the role of the wheel speed sensor is essential for diagnosing issues related to handling and braking performance in truck systems.

**3. Which symptom is a sign of low oil level in an automatic transmission?**

- A. Decreased fuel economy**
- B. Delayed shifting from third to second gear**
- C. Delayed engagement into reverse**
- D. Rough idling**

A symptom indicating a low oil level in an automatic transmission is delayed engagement into reverse. When the transmission fluid is low, it can lead to insufficient hydraulic pressure. This pressure is crucial for the engagement of gears, including reverse. As a result, if there is a delay in the transmission engaging when shifting into reverse, it can be a clear indication that the fluid level is lower than necessary to facilitate proper function. In contrast, while decreased fuel economy, delayed shifting from third to second gear, and rough idling can all be influenced by various issues in a vehicle, they are not specific indicators of low oil levels in the transmission. Delayed shifting and fuel economy issues could be attributed to other mechanical faults or engine performance problems, whereas rough idling typically relates to engine issues rather than transmission-specific concerns. Therefore, the delayed engagement into reverse is the most direct symptom associated with low automatic transmission fluid levels.

**4. What is a symptom of insufficient backlash within a rear axle?**

- A. Excessive noise during gear engagement**
- B. Clunking sound when reversing**
- C. Increased fuel consumption**
- D. Vibration at high speeds**

Insufficient backlash in a rear axle can lead to excessive noise during gear engagement. Backlash is the slight distance between gear teeth that allows for flexibility in gear engagement. When the backlash is inadequate, it can result in the gears being too tightly meshed, causing them to bind or clash as they engage. This binding creates additional friction, leading to increased operational noise, especially when the gears are under load. While other symptoms like clunking sounds, increased fuel consumption, and vibrations can occur for various reasons in a vehicle, excessive noise during gear engagement is specifically indicative of an issue related to insufficient backlash. This unique correlation highlights the importance of proper adjustment and maintenance of rear axle components to ensure smooth operation and minimize wear on the gears.

**5. What key function does an engine compression brake perform during operation?**

- A. Opens the exhaust valve on the power stroke**
- B. Closes the intake valve on the compression stroke**
- C. Closes the exhaust valve on the power stroke**
- D. Opens the intake valve on the power stroke**

An engine compression brake, commonly known as a Jake brake, plays a crucial role in enhancing vehicle control, especially in heavy-duty trucks. During operation, the compression brake utilizes the engine's compression stroke to reduce the vehicle's speed. The correct answer highlights that during the power stroke, when the engine is generating power, the compression brake system introduces a method of enhancing engine braking by closing the exhaust valve early. This creates a resistance effect, as the compressed air in the cylinders acts against the crankshaft, effectively slowing down the engine and, consequently, the vehicle. This is particularly beneficial when descending hills or when a rapid reduction in speed is required without applying the standard brakes, which helps in preventing brake overheating and wear. The other options relate to the timing and function of the engine valves during different strokes, but they do not accurately describe the function of the compression brake, which specifically leverages the closure of the exhaust valve during the power stroke to create back pressure that aids in deceleration.

**6. What is the correct procedure for replacing S-cams in a truck's braking system?**

- A. Replace the automatic slack adjusters and inspect brake chamber diaphragms**
- B. Inspect the slave valve clearance and turn S-cam bushings 90°**
- C. Replace brake hoses and adjust the clutch switch**
- D. Only replace the service brake chamber diaphragms**

Replacing S-cams in a truck's braking system involves critical components that guarantee the proper function and safety of the brakes. The correct procedure necessitates replacing the automatic slack adjusters and inspecting brake chamber diaphragms. By replacing the slack adjusters, the system ensures that they function correctly alongside the new S-cams, maintaining proper tension and adjustment of the brakes. This is essential because slack adjusters play a key role in compensating for brake lining wear, ensuring the brakes maintain effective stopping power. Additionally, inspecting the brake chamber diaphragms is vital because worn or damaged diaphragms can lead to air leaks, which would negatively impact the braking system's performance. This approach to replacing S-cams promotes a holistic maintenance strategy, ensuring that related components are also in good working order, thereby enhancing the overall safety and reliability of the truck's braking system.

## 7. What is a common cause of engine knocking in trucks?

- A. Using high-octane fuel
- B. Carbon buildup or a malfunctioning ignition system**
- C. Low battery voltage
- D. Excessive oil thickness

Engine knocking, often referred to as spark knock or detonation, typically occurs when fuel in the engine's cylinders ignites prematurely or unevenly. This can create a knocking or pinging sound, which is particularly detrimental to engine performance and longevity. One common cause of engine knocking is carbon buildup or a malfunctioning ignition system. Carbon deposits can form in the combustion chamber over time, creating hot spots that may ignite the fuel-air mixture too early. This premature ignition leads to the characteristic knocking noise. Additionally, if the ignition system is not functioning correctly—such as having a faulty spark plug or improper spark timing—it can also cause the air-fuel mixture to ignite at the wrong time, resulting in knocking. Using high-octane fuel is generally a preventive measure against knocking because higher-octane fuels are more resistant to premature ignition. While low battery voltage and excessive oil thickness could cause other issues in a vehicle, they are less directly related to the phenomenon of engine knocking. Battery voltage primarily affects the electrical systems, and oil thickness is more about lubrication and engine wear rather than combustion processes. Thus, carbon buildup and problems with the ignition system can directly lead to conditions that foster engine knocking, making this answer the best choice for understanding the common causes of

## 8. Which component of the fueling system is directly responsible for injecting fuel into the engine?

- A. Fuel pump
- B. Fuel injector**
- C. Fuel filter
- D. Fuel tank

The component responsible for injecting fuel into the engine is the fuel injector. Fuel injectors are precision devices located within the engine's intake manifold or cylinder head. Their primary function is to atomize the fuel and deliver it in a fine mist directly into the combustion chamber or into the air-fuel mixture in the intake manifold. This is crucial for achieving optimal combustion and engine performance. Fuel injectors are controlled by the engine's electronic control unit (ECU), which determines the timing and amount of fuel to inject based on various sensors and engine conditions. This process allows for precise fuel delivery, which enhances engine efficiency, reduces emissions, and supports better power output. Other components such as the fuel pump, fuel filter, and fuel tank play important roles in the overall fueling system. The fuel pump supplies fuel from the tank to the injectors, the fuel filter traps contaminants from the fuel before it reaches the injectors, and the fuel tank stores the fuel needed for operation. However, none of these components is directly involved in the injection process itself; that specific task belongs solely to the fuel injector.



**9. What is the second adjustment to be performed when setting a double disc angle spring clutch?**

- A. Check and adjust rolling torque**
- B. Clutch brake**
- C. Linkage length**
- D. Upper pedal stop**

When setting a double disc angle spring clutch, the second adjustment to be performed is the clutch brake. The purpose of the clutch brake is to ensure that the clutch disengages effectively and to prevent grinding of the gears when the transmission is shifted. Proper adjustment of the clutch brake helps in achieving smoother operation and prolongs the lifespan of the transmission components. This adjustment typically follows the initial steps of checking the overall clutch mechanism and ensures that when the clutch pedal is depressed, the brake engages correctly. Correctly setting the clutch brake can significantly reduce the chance of clutch slippage and ensures the drivetrain operates efficiently. Proper sequence and adjustments are important in clutch setup to minimize wear and potential damage. Other adjustments like rolling torque, linkage length, and upper pedal stop are also important but may either come earlier or serve a different function in the overall clutch setup process. These factors interact to affect the performance of the clutch as a whole, but the clutch brake specifically focuses on the engagement and disengagement functionality.

**10. What is the primary purpose of lubrication in a diesel engine?**

- A. To facilitate fuel combustion**
- B. To reduce friction among components**
- C. To cool the intake air**
- D. To assist in the exhaust process**

The primary purpose of lubrication in a diesel engine is to reduce friction among components. When the engine operates, its various parts such as pistons, crankshafts, and camshafts move against one another at high speeds and under significant loads. This movement generates heat and can lead to wear and tear if not properly managed. Lubrication creates a thin film between these moving parts, effectively minimizing direct contact and thereby reducing friction. By lowering friction, lubrication helps prevent overheating and reduces the likelihood of component damage, ultimately contributing to the engine's efficiency and longevity. Additionally, a good lubrication system helps to keep contaminants in suspension, transports debris away from critical surfaces, and aids in sealing gaps where necessary. While lubrication does indirectly affect combustion by preventing excessive wear that could lead to engine faults, its primary role is centered on reducing friction, ensuring smooth operation, and protecting engine components.

## 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](mailto:hello@examzify.com).**

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

**<https://hettrucktransportmech.examzify.com>**

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