

ASE Suspension and Steering (T5) Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

Copyright © 2025 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain from reliable sources accurate, complete, and timely information about this product.

SAMPLE

Questions

- 1. What is the primary function of power steering fluid?**
 - A. To lubricate the engine components**
 - B. To lubricate the steering system components and provide hydraulic assistance**
 - C. To cool the transmission system**
 - D. To enhance fuel efficiency**
- 2. Which principle does NOT apply to leaf spring suspension repair procedures?**
 - A. Replace the entire set if a truck has run with a broken spring leaf**
 - B. Never retorque the nuts that fasten U-bolts**
 - C. Replace the entire set for a single broken leaf**
 - D. Never re-use U-bolts during repairs**
- 3. What does steering rack play refer to?**
 - A. Excessive movement in the steering rack**
 - B. Reduced responsiveness in steering**
 - C. Alignment angle of the wheels**
 - D. Wear in the tie rod ends**
- 4. What happens when sway bars are removed from a vehicle?**
 - A. Increased body roll during cornering**
 - B. Improved suspension stiffness**
 - C. Better traction on rough surfaces**
 - D. Increased ride height**
- 5. What component dampens the up-and-down motion of leaf springs?**
 - A. Air bags**
 - B. Shock absorbers**
 - C. Leaf spring bushings**
 - D. Pistons**

- 6. What is required for a truck with a flat inner tire on dual wheels before it can leave the shop?**
- A. The flat tire must be repaired or replaced**
 - B. It can run if it's a short distance**
 - C. Both tires must be replaced**
 - D. Wait until the next maintenance**
- 7. What connection does a drag link have in a steering system?**
- A. It connects the steering wheel to the steering column**
 - B. It connects the steering gear to the pitman arm**
 - C. It connects the left and right tie rods directly**
 - D. It connects the brake pedal to the brake calipers**
- 8. If a truck with air suspension is experiencing shock breakage, which is NOT a necessary check?**
- A. Check the part numbers of the shocks**
 - B. Check the function of the ride height control valve**
 - C. Check the torque of the shock mounting bolts**
 - D. Check tire pressures**
- 9. A technician suspects a power steering issue. What should the engine state be during diagnosis?**
- A. Engine should be off and the system drained**
 - B. Engine should be running with wheels straight**
 - C. Engine started with the steering wheel centered**
 - D. Engine must be revved while assessing leaks**
- 10. What is a function of self-steering lift axles?**
- A. Increase truck speed**
 - B. Enhance truck maneuverability**
 - C. Add additional braking force**
 - D. Support static loads only**

Answers

SAMPLE

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

SAMPLE

Explanations

1. What is the primary function of power steering fluid?

- A. To lubricate the engine components
- B. To lubricate the steering system components and provide hydraulic assistance**
- C. To cool the transmission system
- D. To enhance fuel efficiency

The primary function of power steering fluid is to lubricate the components within the steering system while also providing hydraulic assistance to enable easier steering. This fluid works within a hydraulic system that amplifies the driver's input on the steering wheel, allowing for better maneuverability and control with less physical effort. By ensuring that the moving parts of the steering mechanism are properly lubricated, the fluid helps reduce friction and wear, contributing to the longevity of the system. Additionally, the hydraulic properties of the fluid allow for effective transfer of force, making it easier to turn the steering wheel, especially in larger or heavier vehicles. Other options do not accurately reflect the role of power steering fluid. Lubricating engine components pertains to motor oil, cooling the transmission system relates to transmission fluid, and enhancing fuel efficiency involves different systems and practices not directly connected to the function of power steering fluid.

2. Which principle does NOT apply to leaf spring suspension repair procedures?

- A. Replace the entire set if a truck has run with a broken spring leaf
- B. Never retorque the nuts that fasten U-bolts**
- C. Replace the entire set for a single broken leaf
- D. Never re-use U-bolts during repairs

The principle that states "Never retorque the nuts that fasten U-bolts" is not applicable to leaf spring suspension repair procedures because it is common and indeed necessary to retorque U-bolts after installation or after a period of use. This is to ensure that the nuts are properly secured and that the suspension system maintains its integrity and performance. U-bolts can settle over time, and retorquing them helps prevent any loosening that may lead to suspension issues or unsafe driving conditions. In contrast, the other options reflect established practices in leaf spring repairs. When a truck has run with a broken spring leaf, it is vital to replace the entire set to maintain balanced handling and load-carrying capacity. Simply replacing a single leaf can lead to uneven performance and compromise the safety of the vehicle. Similarly, never reusing U-bolts is essential because they can undergo deformation during initial installation, and reusing them may lead to failure. Therefore, maintaining reliable and safe repairs involves adherence to these well-established principles.

3. What does steering rack play refer to?

- A. Excessive movement in the steering rack**
- B. Reduced responsiveness in steering**
- C. Alignment angle of the wheels**
- D. Wear in the tie rod ends**

Steering rack play refers to the excessive movement in the steering rack, which can result in a noticeable "looseness" in the steering system. This condition typically occurs when there is wear or damage within the components of the steering system, such as the steering rack itself or the associated linkages. When there is too much play, it can lead to a lack of precise control while steering, making the vehicle feel unstable or imprecise during maneuvers. Understanding steering rack play is crucial because it can impact vehicle safety and drivability. If left untreated, it may lead to more severe issues in the steering mechanics, potentially resulting in difficulty in steering or even failure of the steering system over time. Monitoring and addressing steering rack play ensures better handling, responsiveness, and overall control of the vehicle.

4. What happens when sway bars are removed from a vehicle?

- A. Increased body roll during cornering**
- B. Improved suspension stiffness**
- C. Better traction on rough surfaces**
- D. Increased ride height**

When sway bars (also known as anti-roll bars) are removed from a vehicle, one of the most immediate effects is an increase in body roll during cornering. Sway bars are designed to reduce the amount of body roll that occurs when a vehicle turns. They do this by connecting the left and right sides of the suspension, allowing them to work together to counteract the forces that cause the body to lean to one side. Without a sway bar, the vehicle's body becomes less stable during turns, and the wheels on one side can compress more than those on the opposite side. This can lead to a significant increase in body roll, which compromises handling and cornering performance. The vehicle may feel less controlled and more tippy, impacting driver confidence and safety. The other choices suggest improvements or characteristics that would not be associated with the removal of sway bars. For example, suspension stiffness would not improve without sway bars, and traction on rough surfaces would likely decrease as the vehicle's stability is compromised. Additionally, ride height is generally not affected by the presence or absence of sway bars. Therefore, the increase in body roll is indeed the primary and most relevant consequence of removing sway bars from a vehicle.

5. What component dampens the up-and-down motion of leaf springs?

A. Air bags

B. Shock absorbers

C. Leaf spring bushings

D. Pistons

The component responsible for dampening the up-and-down motion of leaf springs is shock absorbers. When a vehicle encounters bumps or irregularities on the road, leaf springs flex to accommodate these changes. However, without shock absorbers, this oscillation could lead to excessive bouncing and instability, making the ride uncomfortable and potentially dangerous. Shock absorbers work by converting kinetic energy from the movement of the springs into thermal energy, which is dissipated as heat. This process effectively controls the motion of the leaf springs, ensuring that the vehicle maintains traction and stability as it moves over varying surfaces. By reducing the amplitude of the spring vibrations, shock absorbers enhance the overall performance of the suspension system, providing a smoother ride and improving handling characteristics. Air bags, while they can also serve to support and provide additional lift in certain suspension systems, do not primarily function to dampen motion. Leaf spring bushings reduce friction and allow movement but do not provide damping. Pistons are critical components within shock absorbers, but they themselves do not address the dampening directly. Thus, the role of shock absorbers in controlling the motion of leaf springs is what makes them the correct answer for this question.

6. What is required for a truck with a flat inner tire on dual wheels before it can leave the shop?

A. The flat tire must be repaired or replaced

B. It can run if it's a short distance

C. Both tires must be replaced

D. Wait until the next maintenance

For a truck with a flat inner tire on dual wheels, the requirement for it to leave the shop is that the flat tire must be repaired or replaced. This is crucial for the safety and performance of the vehicle. Dual wheels are designed to work together, providing additional load-bearing capacity and stability. If one tire is flat, it jeopardizes the structural integrity of the wheel assembly, can lead to further damage, and significantly increases the risk of accidents. Allowing the vehicle to operate with a flat tire, even for a short distance, can cause damage to the wheel and suspension components and may lead to a complete tire failure. Simply replacing both tires isn't necessary unless both are damaged, and deferring the repair until the next maintenance is not a responsible option since it poses immediate safety hazards. Therefore, addressing the flat tire promptly is essential for ensuring that the truck is safe and compliant with regulations before it leaves the shop.

7. What connection does a drag link have in a steering system?

- A. It connects the steering wheel to the steering column**
- B. It connects the steering gear to the pitman arm**
- C. It connects the left and right tie rods directly**
- D. It connects the brake pedal to the brake calipers**

A drag link plays a crucial role in the steering system as it connects the steering gear to the pitman arm. This connection is vital because the drag link transfers the motion generated by the steering wheel through the steering column to the pitman arm, which then translates that motion into turning the vehicle's wheels. This component is particularly significant in vehicles equipped with conventional rack-and-pinion steering or older systems utilizing a recirculating ball mechanism. Understanding the function of the drag link is important for diagnosing steering issues, as any wear or damage in this component can directly affect steering response and vehicle handling. This makes option B the correct answer, as it accurately describes the function and connection of the drag link within the steering system. The other options do not correlate with the function of the drag link. For example, the connection between the steering wheel and the steering column is handled by different components, while the connection of the left and right tie rods involves other steering system elements. The connection of the brake pedal to the brake calipers pertains to the braking system and has no relevance to steering mechanics. Therefore, option B accurately identifies the drag link's role in steering dynamics.

8. If a truck with air suspension is experiencing shock breakage, which is NOT a necessary check?

- A. Check the part numbers of the shocks**
- B. Check the function of the ride height control valve**
- C. Check the torque of the shock mounting bolts**
- D. Check tire pressures**

In the context of air suspension systems, checking tire pressures is not directly related to the issue of shock breakage. While maintaining correct tire pressure is crucial for overall vehicle safety and performance, it does not directly impact the functionality of the air suspension system or the specific shocks that may have broken. The part numbers of the shocks are relevant because ensuring the correct parts are installed is essential for maintaining proper suspension dynamics. Verifying the function of the ride height control valve is critical since this component regulates the air pressure in the suspension system to maintain ride height and stability. Checking the torque of the shock mounting bolts is also important, as loose or improperly torqued bolts can contribute to shock failure. Therefore, while checking tire pressures is important for vehicle safety, it does not specifically address the problem of shock breakage in an air suspension system, making it unnecessary in this context.

9. A technician suspects a power steering issue. What should the engine state be during diagnosis?

- A. Engine should be off and the system drained**
- B. Engine should be running with wheels straight**
- C. Engine started with the steering wheel centered**
- D. Engine must be revved while assessing leaks**

During diagnosis of a power steering issue, having the engine running with the wheels straight is the most effective approach. This state allows the technician to evaluate the power steering system under conditions similar to normal operation, ensuring that the hydraulic pressures can be assessed accurately. When the engine is running, the power steering pump is operational, which is crucial for any diagnosis involving potential leaks, noises, or responsiveness in the steering system. Keeping the wheels straight helps to create a stable environment, allowing for a clearer assessment of the system's performance rather than introducing additional variables that could obscure the results of the diagnosis. In contrast, having the engine off or draining the system would not facilitate the observation of the system's functionality, while starting the engine with the steering wheel centered does not provide the same comprehensive evaluation as having the wheels straight. Additionally, running the engine at high RPMs while assessing leaks may lead to inaccurate symptoms or could even exacerbate potential issues, making it less desirable for effective diagnosis.

10. What is a function of self-steering lift axles?

- A. Increase truck speed**
- B. Enhance truck maneuverability**
- C. Add additional braking force**
- D. Support static loads only**

Self-steering lift axles are designed primarily to enhance truck maneuverability. These axles allow the vehicle to navigate tighter turns more easily by turning slightly in the direction of the front wheels, effectively reducing the turning radius. This feature is especially beneficial in larger vehicles, such as trucks and trailers, which can otherwise struggle with tight cornering due to the length and weight of their configurations. In contrast, the other options do not accurately describe the primary function of self-steering lift axles. They do not inherently increase truck speed; their purpose is more closely aligned with control and turning ability. While they do contribute somewhat to load distribution and stability, they do not add additional braking force, as that is typically managed by the braking system. They are also not limited to supporting static loads; self-steering lift axles effectively support dynamic loads while in motion. Thus, enhancing maneuverability stands out as the correct and relevant function of self-steering lift axles.