

Truck Trailer Service Technician 310J

1. A tri-axle trailer is equipped with five S-cam slack adjusters correctly set at an effective length of 6 inches and one incorrectly installed at 5 1/2 inches. How much less brake torque will be applied at the brake with the incorrectly set slack adjuster when the service application pressure is 100 psi on a 30-square-inch chamber?
 A 1,500 lb-in B 1,750 lb-in
 C 1,700 lb-in D 1,250 lb-in
2. A spring pack has a single cracked leaf. Technician A says that the spring pack should be replaced as a unit. Technician B says that the fractured leaf can be repair welded providing it is not the main leaf. Who is correct?
 A B only B A only
 C Both D Neither
3. Technician A says that it is good practice to machine a new drum before putting it into service because it trues the drum to the wheel. Technician B says that most heat discoloration and checking is easy to remove on used drums when brakes are serviced by skimming the drum on a lathe. Who is correct?
 A B only B A only
 C Both D Neither
4. Before testing a dual-drive axle truck equipped with ATC on a chassis dynamometer, what should be done?
 A ATC should be calibrated. B ATC must be disabled.
 C ATC settings should be adjusted. D ATC must be activated.
5. Technician A says that he seats radial tire beads by igniting a charge of ether inside the tire. Technician B says that he seats radial tire beads using a metal ring inflation aid. Who is correct?
 A B only B A only
 C Both D Neither

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6. When lubricating the fifth wheel, Technician A lubricates all moving parts with water-resistant, lithium-based grease. Technician B lubricates the rails on a sliding fifth wheel with a mixture of oil and diesel fuel. Who is correct?
- A B only B A only
 C Both D Neither
7. Technician A says that in a tractor/trailer B-train combination, the crack pressures of the relay valves over the pup axles would be the highest on the rig. Technician B says that quick-release valves on the service gladhands can speed up service brake release times on multi-trailer combinations. Who is correct?
- A B only B A only
 C Both D Neither
8. When extending a frame, Technician A uses a 60-degree angle butt joint. After welding a frame extension butt joint, Technician B grinds the weld cap run flush with the frame. Who is correct?
- A B only B A only
 C Both D Neither
9. Which of the following is the preferred method of repairing a wheel seal leak that has glazed the brake shoe linings?
- A Clean the brake shoes and replace the hub assembly. B Replace the wheel seal and brake shoes on both sides of the axle.
 C Resurface the brake drums and replace the axle bearings. D Replace the brake rotors and caliper assembly.
10. Technician A says that the service diaphragm in a spring brake can be safely changed, providing that the spring brake is properly caged with a cage bolt before removing it. Technician B says that it is no longer possible to change the hold-off diaphragms in most spring brake assemblies because the band clamp cannot be unbolted. Who is correct?
- A B only B A only
 C Both D Neither

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11. What is the required amount of slack adjuster free travel on a properly adjusted, manual S-cam brake?
- (A) 1/4 to 1/2 inch (B) 1/2 to 3/4 inch
(C) 3/8 to 5/8 inch (D) 5/8 to 7/8 inch
12. Technician A says that a damaged floor in a unibody van trailer should be immediately repaired because the floor forms part of the frame. Technician B says that an out-of-square door frame on a unibody van trailer can indicate problems with the structural integrity of the vehicle. Who is correct?
- (A) B only (B) A only
(C) Both (D) Neither
13. When performing a front-end alignment, Technician A checks and corrects the toe setting first. Technician B says that to measure toe using a tape and tram gauge, it is necessary to make measurements between the tires at both the front and back at hub height. Who is correct?
- (A) B only (B) A only
(C) Both (D) Neither
14. A leaking axle seal has saturated the brake shoe linings and caused them to glaze. Technician A says that the shoes should be immersed in solvent before being returned to service. Technician B says that if the brake shoes on both sides of the axle are not replaced, brake torque balance could be affected. Who is correct?
- (A) B only (B) A only
(C) Both (D) Neither
15. When C-channel stock is used for a frame reinforcement, which of the following must be true?
- (A) It must be lighter than the original frame rail. (B) It must have the same yield strength as the original frame rail.
(C) It must be made of a different material than the original frame rail. (D) It must be more flexible than the original frame rail.

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16. When an S-cam foundation brake slack adjuster is in the fully applied position, ideally the slack adjuster-to-pushrod angle should be:
- A slightly less than 90 degrees B exactly 45 degrees
 C exactly 90 degrees D slightly more than 90 degrees
17. Technician A says that an advantage of disc wheels over cast spoke is that they produce fewer wheel alignment problems. Technician B says that in stud-piloted disc wheel systems, a loose inner nut can easily go undetected, eventually pounding out the ball seat. Who is correct?
- A B only B A only
 C Both D Neither
18. When adjusting a manual slack adjuster on an S-cam foundation brake, Technician A says that the lock collar should be retracted and the adjusting nut always rotated clockwise to decrease free travel. Technician B says that free travel can be reduced only when the adjusting nut is rotated counterclockwise. Who is correct?
- A B only B A only
 C Both D Neither
19. A set of brake linings has become glazed because of oil saturation by a failed wheel seal. Technician A says that pressure washing the foundation brake components should be sufficient to remove the effects of the oil saturation. Technician B says that the best practice is to replace the brake linings on both wheels on the affected axle. Who is correct?
- A B only B A only
 C Both D Neither
20. Technician A says that when fifth wheel brackets are bolted to frame rails, the section modulus over that section of the frame is increased. Technician B says that installing inverted L-section reinforcements is preferred to L-section reinforcements because the section modulus is not affected. Who is correct?
- A B only B A only
 C Both D Neither