

Manual Drivetrains and Axles 9th Edition

Chapter 13

Multiple Choice Quiz A

Name: _____ Date: _____

1. What is the primary function of the differential case in a drive axle?
 - A. To support the vehicle's weight
 - B. To transfer power to the wheels
 - C. To house differential gears
 - D. To lubricate the axle

2. What is indicated by a chatter noise when turning corners?
 - A. Brake issue
 - B. Suspension problem
 - C. Engine trouble
 - D. Limited slip differential stick/slip condition

3. What is the purpose of using gear marking compound in drive axle service?
 - A. To lubricate the gears
 - B. To identify wear patterns
 - C. To prevent corrosion
 - D. To seal the gears

4. When diagnosing drive axle noises, what could a growling sound indicate?
 - A. Tire issue
 - B. Differential problem
 - C. Bearing fault
 - D. Brake failure

5. What does an incorrect backlash in the differential gears indicate?
 - A. Too much clearance between pinion and ring gears
 - B. Insufficient lubrication
 - C. Pinion gear is too close to the ring gear
 - D. Overloaded axle

6. In a C-lock retained axle, what needs to be removed to access the axle?
 - A. Differential pinion shaft
 - B. Axle shaft
 - C. Bearing retainer
 - D. Drive pinion

7. How does the viscosity of gear oil in a drive axle affect its performance?
 - A. It changes the gear ratio
 - B. It adjusts the axle alignment
 - C. It impacts the axle temperature
 - D. It controls the resistance to flow

8. What is the first step in diagnosing drive axle concerns?
- A. Checking lubricant level
 - B. Verifying the customer complaint
 - C. Inspecting for leaks
 - D. Measuring gear backlash
9. What might cause a heavy metallic slapping noise in the drive axle?
- A. Excessive lubrication
 - B. Loose bearings
 - C. Excessive slack in the drivetrain
 - D. Misaligned gears
10. What is indicated by too much backlash between the pinion and ring gears?
- A. Pinion depth is incorrect
 - B. Bearing preload is too high
 - C. Need for shim adjustment
 - D. Axle shaft misalignment

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Answer Key

1. C

2. D

3. B

4. C

5. A

6. A

7. D

8. B

9. C

10. C