

Automotive Technology 7th Edition
Chapter 125: Drive Axles and Differentials
Short Answer Quiz

Name:

Date:

1. What is the recommended correction when backlash is incorrect due to too much clearance between the pinion and ring gears, but pinion depth is correct?
2. Describe the process to check the tooth contact pattern on the ring gear teeth.
3. What could cause patterns that vary during a tooth contact pattern check even when pinion depth and backlash are correct?
4. Explain how a collapsible spacer is used in some differentials and what its purpose is.
5. What are the steps involved in performing a tooth contact pattern test?

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6. How does the preload spring affect the operation of a differential, and what role do adjustment shims play?

7. What is the significance of the pinion gear preload, and how is it achieved?

8. When the backlash exceeds specifications, how should the ring gear be positioned relative to the drive pinion gear?

9. If the backlash is less than specifications, where will the ring gear tooth pattern be too close?

10. Discuss the use of lubricants in a limited-slip differential and the importance of friction modifiers.