

Manual Drivetrains and Axles 9th Edition

Chapter 2 – Introduction to Drivetrains

Lesson Plan



CHAPTER SUMMARY:

1. Drivetrains, Torque, Horsepower, Gears, Gear Ratios, Transmissions, and Manual Transmissions
 2. Automatic Transmissions, Rear-Wheel Drive versus Front-Wheel Drive, and Transaxles
 3. Driveshaft, Drive Axle Assemblies, Towing Capability, and Four-Wheel Drive
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OBJECTIVES:

1. Define torque and explain the relationship between torque and horsepower.
 2. Describe the various gear types and their effect on speed, torque, and direction of rotation.
 3. Explain gear ratios and their effect on vehicle operation.
 4. Discuss the types of manual transmissions and transaxles that are currently in use.
 5. Discuss automatic transmissions and the planetary gear sets used for automatic transmissions.
 6. Compare rear-wheel drive, front-wheel drive, four-wheel drive, and all-wheel drive.
 - 7 Explain the characteristics of driveshafts and drive axle assemblies.
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RESOURCES: (All resources may be found at <http://www.jameshalderman.com>)

1. Task Sheet: Drivetrain Identification
 2. Chapter PowerPoint
 3. Crossword Puzzle and Word Search
 4. Videos: [\(A3\) Manual Drive Train Axles Videos](#)
 5. Animations: [\(A3\) Manual Drive Train Axles Animations](#)
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ACTIVITIES:

1. Task Sheet: Drivetrain Identification
 2. Crossword Puzzle and Word Search
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ASSIGNMENTS:

1. Chapter crossword and word search puzzles.
 2. Complete end of chapter 10 question quiz.
 3. Complete multiple choice and short answer quizzes downloaded from the website.
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CLASS DISCUSSION:

1. Review and group discussion chapter [Frequently Asked Questions](#) and [Tech Tips](#) sections.
 2. Review and group discussion of the five (5) chapter [Review Questions](#).
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NOTES AND EVALUATION:
