**Manual Drivetrains and Axles 9th Edition**

**Chapter 3 –** **Clutch Components and Operation**

**CHAPTER SUMMARY:**

1. Parts Involved, Clutch Operation, Clutch Discs, Pressure Plates, and Flywheels

2. Dual-Mass Flywheels, Pilot Bearings, Clutch Pedal Linkage, and Release (Throwout) Bearing

3. Clutch Pedal Switch

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**OBJECTIVES:**

1. List the major parts that are included in the clutch system.

2. Describe how the clutch works.

3. Explain how a dual mass flywheel works.

4. Describe how a hydraulic clutch system works. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**RESOURCES:** (All resources may be found at http://www.jameshalderman.com)

1. Task Sheet: Clutch Identification

2. Chapter PowerPoint

3. Crossword Puzzle and Word Search

4. Videos: [(A3) Manual Drive Train Axles Videos](https://jameshalderman.com/a3_vid_lib_page/)

5. Animations: [(A3) Manual Drive Train Axles Animations](https://jameshalderman.com/a3_anim_lib_page/)

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**ACTIVITIES:**

1. Task Sheet: Clutch 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:**

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